

AUSTRALIAN COMMODITIES STATISTICS  
2002



abareconomics

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## Foreword

*Australian Commodity Statistics* is an invaluable reference book for anyone associated with Australia's agricultural and resources industries. It is a comprehensive publication, containing overview and macroeconomic information as well as key statistics on the supply of and demand for each commodity covered. Current data are presented alongside historical data, with some historical series extending for over forty years.

In *Australian Commodity Statistics*, ABARE aims for continuity from year to year. This makes it possible for users to monitor industry developments over time. To ensure that the most relevant package of statistics is provided, the tables are scrutinised each year with some changes made and new tables added.

*Australian Commodity Statistics* can be used in conjunction with ABARE's *Australian Commodities*, in which the most important statistics, including forecasts, are updated throughout the year. Both of these publications provide background material for ABARE's national OUTLOOK conference to be held in Canberra in March 2002 and at which medium term outlook assessments will be presented for each of the major commodity based industries and the manufacturing and services sector.

Other ABARE publications that contain mainly statistical information on commodities and as such complement the data presented in *Australian Commodity Statistics*, are *Australian Crop Report* (quarterly), *Australian Mineral Statistics* (quarterly), *Australian Forest and Wood Products Statistics* (biennial) and *Australian Fisheries Statistics* (annual).

Readers can now purchase the wealth of statistical information contained in this report in Excel format on CD Rom and individual data subsets — see the details on the opposite page.



BRIAN S. FISHER  
*Executive Director*

February 2003

## Definitions and explanations

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### Abbreviations and symbols

lb	pound	454 grams
kg	kilogram	2.20462 pounds
t	tonne	1000 kilograms
kt	kilotonne	1000 tonnes
Mt	megatonne	1 000 000 tonnes
L	litre	1.761 pints
kL	kilolitre	1000 litres
ML	megalitre	1 000 000 litres
GL	gigalitre	1 000 000 000 litres
ha	hectare	2.471 acres
m <sup>3</sup>	cubic metre	1.307 cubic yards
c	cent (Australian)	
A\$	dollar (Australian)	
\$m	million dollars (Australian)	
DM	deutschmark	
ECU	European currency unit	
€	euro	
£	pound sterling	
USc	cent (United States)	
US\$	dollar (United States)	
¥	yen	
ct	carat	
bbl	barrel	
mbd	million barrels a day	
cif	cost, insurance and freight	
fas	free alongside ship	
fob	free on board	
fot	free on truck	
nec	not elsewhere classified	
ABARE	Australian Bureau of Agricultural and Resource Economics	
ABS	Australian Bureau of Statistics	
AWB Limited	Australian Wheat Board, Australian grain marketing company	
BAE	Bureau of Agricultural Economics (now ABARE)	
BMR	Bureau of Mineral Resources, Geology and Geophysics (now AGSO – Australian Geological Survey Organisation)	
DITR	Department of Industry, Tourism and Resources	
FAO	Food and Agriculture Organisation of the United Nations	

Small **discrepancies** in totals are generally caused by rounding.

**0** is used to denote nil or a negligible amount.

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To assist users of *Australian Commodity Statistics* a 'where to find' list of commonly used or difficult to find general items is included on page 354



# AUSTRALIAN ECONOMY



- overview
- macroeconomic indicators
- farm sector
- resource sector

# 1 Australian gross product, by sector

	Chain volume measures a					Nominal prices	
	Rural		Mining				
	Farm	Total b	Mining	Services		Gross	Gross
	\$m	\$m	(excl. services to mining)	to mining	Total	domestic product	domestic product
			\$m	\$m	\$m	\$m	\$m
1975-76	10 943	11 804	8 387	na	9 443	288 601	79 385
1976-77	11 214	12 120	8 932	na	10 055	297 870	91 551
1977-78	10 822	11 724	9 157	na	10 275	300 195	100 089
1978-79	13 448	14 268	9 393	na	10 498	316 750	112 852
1979-80	11 559	12 514	9 194	na	10 147	324 485	128 596
1980-81	9 888	10 971	9 368	na	10 244	334 866	145 642
1981-82	11 819	12 766	9 294	na	9 926	345 290	167 428
1982-83	9 009	9 974	9 647	na	10 400	336 257	180 468
1983-84	13 404	14 293	10 359	na	11 287	354 125	203 350
1984-85	13 447	14 321	11 702	na	12 860	372 053	224 997
1985-86	13 090	13 934	13 107	1 751	14 210	387 724	248 128
1986-87	13 169	14 021	12 474	1 196	13 420	397 490	272 287
1987-88	12 691	13 646	14 619	1 541	15 774	418 795	310 628
1988-89	13 040	14 082	15 662	1 586	16 867	440 873	351 872
1989-90	14 401	15 295	20 478	1 137	21 597	472 748	384 972
1990-91	15 326	16 296	21 926	971	22 968	472 296	397 883
1991-92	14 060	15 091	23 073	894	24 092	473 557	406 605
1992-93	15 064	16 094	23 111	1 028	24 235	490 900	426 231
1993-94	15 694	16 685	23 527	1 034	24 665	510 002	447 024
1994-95	12 678	13 842	25 076	1 250	26 364	531 577	471 348
1995-96	15 936	17 094	27 024	1 337	28 392	554 000	502 828
1996-97	17 213	18 492	27 363	1 414	28 858	574 989	529 886
1997-98	17 000	18 329	28 223	1 483	29 810	600 590	561 229
1998-99	18 839	20 178	28 406	1 322	29 686	632 488	591 917
1999-00	20 240	21 720	30 521	1 150	31 382	657 771	628 621
2000-01	20 072	21 618	32 486	1 489	33 975	669 308	669 307
2001-02	21 132	22 757	32 490	1 389	33 879	695 634	712 874

a Reference year is 2000-01. Original series, based on ANZSIC codes. For more information on chain volume measures, see the ABS information paper *Australian National Accounts, Introduction of Chain Volume and Price Indexes*, cat. no. 5248.0, released 19 March 1998. b Includes farm, forestry, fishing and hunting. na Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product*, cat. nos 5204.0 and 5206.0, Canberra.

## Overview

### 2 Australian employment, by sector <sup>a</sup>

	Rural		Mining	Manufacturing	Other	Total employment
	Farm '000	Total <sup>b</sup> '000				
1960-61	448	na	na	na	na	na
1961-62	453	na	na	na	na	na
1962-63	443	496	52	na	na	4 320
1963-64	420	486	52	na	na	4 435
1964-65	414	475	53	na	na	4 555
1965-66	409	470	55	na	na	4 705
1966-67	402	461	57	na	na	4 871
1967-68	401	458	60	na	na	4 989
1968-69	396	448	63	na	na	5 112
1969-70	392	452	69	na	na	5 285
1970-71	401	450	76	na	na	5 466
1971-72	393	447	77	na	na	5 540
1972-73	388	434	77	na	na	5 680
1973-74	377	427	78	na	na	5 863
1974-75	368	414	82	na	na	5 856
1975-76	365	401	81	na	na	5 929
1976-77	360	393	81	na	na	5 966
1977-78	351	390	80	na	na	6 018
1978-79	348	388	81	1 205	4 367	6 041
1979-80	364	404	81	1 242	4 460	6 187
1980-81	367	414	88	1 246	4 600	6 348
1981-82	363	409	99	1 249	4 668	6 425
1982-83	374	417	96	1 163	4 645	6 321
1983-84	367	407	98	1 139	4 724	6 368
1984-85	361	403	94	1 150	4 927	6 574
1985-86	386	428	106	1 129	5 187	6 850
1986-87	377	422	101	1 125	5 372	7 020
1987-88	375	418	98	1 159	5 544	7 219
1988-89	384	435	98	1 201	5 803	7 537
1989-90	381	428	104	1 201	6 089	7 822
1990-91	387	435	95	1 143	6 088	7 762
1991-92	367	408	90	1 086	6 040	7 623
1992-93	360	404	87	1 087	6 024	7 601
1993-94	363	409	89	1 092	6 165	7 755
1994-95	357	403	86	1 115	6 452	8 057
1995-96	370	418	85	1 112	6 674	8 289
1996-97	375	422	86	1 129	6 717	8 355
1997-98	378	431	83	1 121	6 827	8 461
1998-99	366	422	80	1 083	7 062	8 647
1999-00	383	438	78	1 115	7 276	8 907
2000-01	369	429	78	1 131	7 452	9 090
2001-02	381	438	81	1 098	7 590	9 207

<sup>a</sup> Average employment over four quarters, based on ANZSIC and equivalent ASIC codes. <sup>b</sup> Includes farm, forestry, fishing and hunting. **na** Not available.  
 Sources: ABS, *The Labour Force, Australia*, cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990*, cat. no. 6204.0, Canberra.

### 3 Contribution to Australian employment, by sector

	Rural		Mining	Manufacturing	Other
	Farm %	Total <sup>a</sup> %			
1962-63	10.3	11.5	1.2	na	na
1963-64	9.5	11.0	1.2	na	na
1964-65	9.1	10.4	1.2	na	na
1965-66	8.7	10.0	1.2	na	na
1966-67	8.3	9.5	1.2	na	na
1967-68	8.0	9.2	1.2	na	na
1968-69	7.7	8.8	1.2	na	na
1969-70	7.4	8.6	1.3	na	na
1970-71	7.3	8.2	1.4	na	na
1971-72	7.1	8.1	1.4	na	na
1972-73	6.8	7.6	1.4	na	na
1973-74	6.4	7.3	1.3	na	na
1974-75	6.3	7.1	1.4	na	na
1975-76	6.2	6.8	1.4	na	na
1976-77	6.0	6.6	1.4	na	na
1977-78	5.8	6.5	1.3	na	na
1978-79	5.8	6.4	1.3	19.9	72.3
1979-80	5.9	6.5	1.3	20.1	72.1
1980-81	5.8	6.5	1.4	19.6	72.5
1981-82	5.6	6.4	1.5	19.4	72.7
1982-83	5.9	6.6	1.5	18.4	73.5
1983-84	5.8	6.4	1.5	17.9	74.2
1984-85	5.5	6.1	1.4	17.5	74.9
1985-86	5.6	6.2	1.5	16.5	75.7
1986-87	5.4	6.0	1.4	16.0	76.5
1987-88	5.2	5.8	1.4	16.1	76.8
1988-89	5.1	5.8	1.3	15.9	77.0
1989-90	4.9	5.5	1.3	15.4	77.8
1990-91	5.0	5.6	1.2	14.7	78.4
1991-92	4.8	5.4	1.2	14.2	79.2
1992-93	4.7	5.3	1.1	14.3	79.2
1993-94	4.7	5.3	1.2	14.1	79.5
1994-95	4.4	5.0	1.1	13.8	80.1
1995-96	4.5	5.0	1.0	13.4	80.5
1996-97	4.5	5.1	1.0	13.5	80.4
1997-98	4.5	5.1	1.0	13.3	80.7
1998-99	4.2	4.9	0.9	12.5	81.7
1999-00	4.3	4.9	0.9	12.5	81.7
2000-01	4.1	4.7	0.9	12.4	82.0
2001-02	4.1	4.8	0.9	11.9	82.4

<sup>a</sup> Includes farm, forestry, fishing and hunting. **na** Not available.

Sources: ABS, *The Labour Force, Australia*, cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990*, cat. no. 6204.0, Canberra.

## Overview

### 4 Value of Australian exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities	Total merchandise	Total goods and services
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
1960-61	na	12	9	na	na	1 884	2 165
1961-62	na	12	13	na	na	2 165	2 462
1962-63	na	13	13	na	na	2 158	2 483
1963-64	na	16	14	na	na	2 764	3 149
1964-65	na	16	18	na	na	2 605	3 041
1965-66	na	15	24	na	na	2 655	3 125
1966-67	na	23	25	na	na	2 954	3 431
1967-68	na	18	34	na	na	2 968	3 574
1968-69	na	18	39	na	na	3 242	3 897
1969-70	2 089	20	39	1 268	3 416	3 998	4 765
1970-71	2 083	25	56	1 430	3 594	4 244	5 086
1971-72	2 375	28	73	1 545	4 021	4 746	5 685
1972-73	3 272	55	72	1 809	5 208	6 086	7 016
1973-74	3 463	74	66	2 246	5 849	6 833	7 896
1974-75	3 784	87	69	3 420	7 360	8 620	10 114
1975-76	4 273	84	80	3 869	8 306	9 589	11 225
1976-77	5 090	116	135	4 813	10 154	11 572	13 425
1977-78	5 093	123	143	5 211	10 570	12 158	14 245
1978-79	6 023	142	192	5 928	12 285	14 234	16 910
1979-80	8 420	207	235	7 400	16 262	18 869	22 017
1980-81	8 229	238	230	7 480	16 177	19 018	22 604
1981-82	7 851	239	307	8 289	16 686	19 662	23 696
1982-83	7 289	261	354	10 058	17 962	21 226	25 632
1983-84	8 319	266	393	11 524	20 502	23 968	28 892
1984-85	10 484	311	399	14 952	26 146	30 102	35 739
1985-86	11 368	348	482	16 285	28 483	32 492	38 948
1986-87	12 172	429	593	17 399	30 593	36 487	44 306
1987-88	14 130	481	730	19 980	35 321	41 903	51 742
1988-89	14 788	607	674	20 940	37 009	44 187	55 354
1989-90	14 174	607	784	24 762	40 327	48 927	60 899
1990-91	12 814	696	831	27 880	42 221	52 568	66 259
1991-92	14 302	737	980	28 135	44 154	55 427	70 080
1992-93	15 688	815	1 090	29 635	47 228	60 634	76 899
1993-94	16 880	897	1 243	29 754	48 773	64 419	83 015
1994-95	17 234	1 052	1 367	30 182	49 834	67 101	87 654
1995-96	19 627	1 067	1 328	34 271	56 293	76 146	99 095
1996-97	21 205	1 179	1 305	35 894	59 582	80 934	105 160
1997-98	22 442	1 324	1 489	40 679	65 935	88 538	113 744
1998-99	21 876	1 293	1 511	38 781	63 462	85 783	112 025
1999-00	23 125	1 576	1 988	43 753	70 442	97 665	126 034
2000-01	28 570	1 812	2 169	55 522	88 071	120 307	153 511
2001-02	29 540	1 994	2 100	54 668	88 504	121 199	152 396

a Includes exports of wine. b Includes paper and paperboard. c Tuna captured under joint venture agreements or transhipped at sea are not included.

d Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. na Not available.

Sources: ABS, *Balance of Payments, Australia*, cat. nos 5302.0 and 5303.0, Canberra; ABARE.

## 5 Contribution to Australian merchandise exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities
	%	%	%	%	%
1960-61	na	0.6	0.5	na	na
1961-62	na	0.6	0.6	na	na
1962-63	na	0.6	0.6	na	na
1963-64	na	0.6	0.5	na	na
1964-65	na	0.6	0.7	na	na
1965-66	na	0.5	0.9	na	na
1966-67	na	0.8	0.8	na	na
1967-68	na	0.6	1.1	na	na
1968-69	na	0.5	1.2	na	na
1969-70	52.2	0.5	1.0	31.7	85.4
1970-71	49.1	0.6	1.3	33.7	84.7
1971-72	50.0	0.6	1.5	32.6	84.7
1972-73	53.8	0.9	1.2	29.7	85.6
1973-74	50.7	1.1	1.0	32.9	85.6
1974-75	43.9	1.0	0.8	39.7	85.4
1975-76	44.6	0.9	0.8	40.3	86.6
1976-77	44.0	1.0	1.2	41.6	87.7
1977-78	41.9	1.0	1.2	42.9	86.9
1978-79	42.3	1.0	1.3	41.6	86.3
1979-80	44.6	1.1	1.2	39.2	86.2
1980-81	43.3	1.3	1.2	39.3	85.1
1981-82	39.9	1.2	1.6	42.2	84.9
1982-83	34.3	1.2	1.7	47.4	84.6
1983-84	34.7	1.1	1.6	48.1	85.5
1984-85	34.8	1.0	1.3	49.7	86.9
1985-86	35.0	1.1	1.5	50.1	87.7
1986-87	33.4	1.2	1.6	47.7	83.8
1987-88	33.7	1.1	1.7	47.7	84.3
1988-89	33.5	1.4	1.5	47.4	83.8
1989-90	29.0	1.2	1.6	50.6	82.4
1990-91	24.4	1.3	1.6	53.0	80.3
1991-92	25.8	1.3	1.8	50.8	79.7
1992-93	25.9	1.3	1.8	48.9	77.9
1993-94	26.2	1.4	1.9	46.2	75.7
1994-95	25.7	1.6	2.0	45.0	74.3
1995-96	25.8	1.4	1.7	45.0	73.9
1996-97	26.2	1.5	1.6	44.3	73.6
1997-98	25.3	1.5	1.7	45.9	74.5
1998-99	25.5	1.5	1.8	45.2	74.0
1999-00	23.7	1.6	2.0	44.8	72.1
2000-01	23.7	1.5	1.8	46.2	73.2
2001-02	24.4	1.6	1.7	45.1	73.0

a Includes exports of wine. b Includes paper and paperboard. c Tuna captured under joint venture agreements or transhipped at sea are not included.

d Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. na Not available.

Sources: ABS, *Balance of Payments, Australia*, cat. nos 5302.0 and 5303.0, Canberra; ABARE.

## Overview

### 6 Contribution to Australian total exports, by sector

Balance of payments basis

	Farm a %	Forest b %	Fisheries c %	Resource sector d %	Total commodities %	Total merchandise %	Services %
1960-61	na	0.6	0.4	na	na	87.0	13.0
1961-62	na	0.5	0.5	na	na	87.9	12.1
1962-63	na	0.5	0.5	na	na	86.9	13.1
1963-64	na	0.5	0.4	na	na	87.8	12.2
1964-65	na	0.5	0.6	na	na	85.7	14.3
1965-66	na	0.5	0.8	na	na	85.0	15.1
1966-67	na	0.7	0.7	na	na	86.1	15.4
1967-68	na	0.5	1.0	na	na	83.0	17.0
1968-69	na	0.5	1.0	na	na	83.2	16.8
1969-70	43.8	0.4	0.8	26.6	71.7	83.9	16.1
1970-71	41.0	0.5	1.1	28.1	70.7	83.4	16.6
1971-72	41.8	0.5	1.3	27.2	70.7	83.5	16.5
1972-73	46.6	0.8	1.0	25.8	74.2	86.7	13.3
1973-74	43.9	0.9	0.8	28.4	74.1	86.5	13.5
1974-75	37.4	0.9	0.7	33.8	72.8	85.2	14.8
1975-76	38.1	0.7	0.7	34.5	74.0	85.4	14.6
1976-77	37.9	0.9	1.0	35.9	75.6	86.2	13.8
1977-78	35.8	0.9	1.0	36.6	74.2	85.3	14.7
1978-79	35.6	0.8	1.1	35.1	72.6	84.2	15.8
1979-80	38.2	0.9	1.1	33.6	73.9	85.7	14.3
1980-81	36.4	1.1	1.0	33.1	71.6	84.1	15.9
1981-82	33.1	1.0	1.3	35.0	70.4	83.0	17.0
1982-83	28.4	1.0	1.4	39.2	70.1	82.8	17.2
1983-84	28.8	0.9	1.4	39.9	71.0	83.0	17.0
1984-85	29.3	0.9	1.1	41.8	73.2	84.2	15.8
1985-86	29.2	0.9	1.2	41.8	73.1	83.4	16.6
1986-87	27.5	1.0	1.3	39.3	69.0	82.4	17.6
1987-88	27.3	0.9	1.4	38.6	68.3	81.0	19.0
1988-89	26.7	1.1	1.2	37.8	66.9	79.8	20.2
1989-90	23.3	1.0	1.3	40.7	66.2	80.3	19.7
1990-91	19.3	1.1	1.3	42.1	63.7	79.3	20.7
1991-92	20.4	1.1	1.4	40.1	63.0	79.1	20.9
1992-93	20.4	1.1	1.4	38.5	61.4	78.8	21.2
1993-94	20.3	1.1	1.5	35.8	58.8	77.6	22.4
1994-95	19.7	1.2	1.6	34.4	56.9	76.6	23.4
1995-96	19.8	1.1	1.3	34.6	56.8	76.8	23.2
1996-97	20.2	1.1	1.2	34.1	56.7	77.0	23.0
1997-98	19.7	1.2	1.3	35.8	58.0	77.8	22.2
1998-99	19.5	1.2	1.3	34.6	56.6	76.6	23.4
1999-00	18.3	1.3	1.6	34.7	55.9	77.5	22.5
2000-01	18.6	1.2	1.4	36.2	57.4	78.4	21.6
2001-02	19.4	1.3	1.4	35.9	58.1	79.5	20.5

a Includes exports of wine. b Includes paper and paperboard. c Tuna captured under joint venture agreements or transhipped at sea are not included.

d Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. na Not available.

Sources: ABS, *Balance of Payments, Australia*, cat. nos 5302.0 and 5303.0, Canberra; ABARE.

## 7 Value of Australian exports, by sector <sup>a</sup>

Chain volume measures

	Rural products <sup>b</sup> \$m	Resource sector products <sup>c</sup> \$m	Other merchandise \$m	Total merchandise <sup>d</sup> \$m	Services <sup>d</sup> \$m	Total goods and services <sup>d</sup> \$m
1975-76	11 264	11 041	1 849	24 154	5 400	29 569
1976-77	12 560	11 887	1 651	26 098	5 453	31 655
1977-78	12 390	12 297	1 922	26 609	5 690	32 363
1978-79	12 397	13 056	2 601	28 054	6 688	34 661
1979-80	14 134	13 200	2 909	30 243	6 856	37 107
1980-81	12 578	12 700	2 649	27 927	7 488	35 307
1981-82	12 845	12 980	2 758	28 583	7 682	36 147
1982-83	11 857	14 069	2 829	28 755	7 654	36 345
1983-84	12 400	16 364	4 616	33 380	8 398	41 719
1984-85	14 853	20 180	6 383	41 416	9 474	50 945
1985-86	15 761	20 468	6 663	42 892	9 941	52 880
1986-87	16 498	22 014	8 877	47 389	11 060	58 492
1987-88	16 091	24 298	10 211	50 600	13 223	63 774
1988-89	15 205	24 331	10 989	50 525	14 411	64 787
1989-90	15 305	27 208	10 928	53 441	14 644	67 984
1990-91	16 644	31 675	11 698	60 017	15 978	75 922
1991-92	18 040	34 567	13 436	66 042	16 793	82 767
1992-93	19 348	35 433	15 054	69 835	18 500	88 287
1993-94	21 495	35 729	18 753	75 977	20 929	96 862
1994-95	20 190	36 767	21 029	77 985	23 562	101 579
1995-96	22 390	41 288	22 572	86 251	25 690	111 970
1996-97	25 535	45 923	25 446	96 903	26 790	123 707
1997-98	26 654	50 262	23 955	100 871	27 421	128 277
1998-99	28 283	50 953	23 389	102 624	28 268	130 889
1999-00	31 411	53 391	28 689	113 491	29 770	143 133
2000-01	32 549	55 521	32 239	120 308	33 205	153 510
2001-02	31 679	56 507	32 791	120 977	30 248	151 224

<sup>a</sup> Reference year 2000–01. <sup>b</sup> Before 1989–90, wine and paper and paperboard are excluded. <sup>c</sup> Minerals and energy resources. Before 1990–91, bauxite, diamonds and manganese are excluded. <sup>d</sup> Balance of payments basis.

Sources: ABS, *Balance of Payments, Australia*, cat. nos 5302.0 and 5303.0, Canberra; ABS, *Balance of Payments, Australia – Historical Series on Microfiche*, cat. no. 5337.0, Canberra; ABARE.



## Overview

### 8 Australian unit export returns

	Rural			Minerals			Total commodities
	Farm	Forest and fisheries products	Total	Energy minerals	Metals and other minerals	Total	
<i>Annual indexes    a</i>							
1989-90	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990-91	85.8	108.6	87.8	111.5	96.6	102.0	97.0
1991-92	87.6	112.6	89.7	103.6	88.1	93.7	92.2
1992-93	90.0	118.0	92.4	109.7	92.1	98.5	96.3
1993-94	90.2	134.2	93.8	100.2	88.7	92.8	93.1
1994-95	100.0	137.7	103.1	94.3	92.3	93.0	96.4
1995-96	104.8	134.5	107.3	101.5	95.3	97.5	100.8
1996-97	95.5	132.8	98.4	103.2	86.9	92.9	94.7
1997-98	102.3	133.5	104.9	106.0	94.7	98.8	100.8
1998-99	93.2	131.3	96.3	96.8	92.4	94.0	94.7
1999-00	90.7	141.3	94.7	110.4	98.2	102.8	99.9
2000-01	109.0	154.2	112.6	141.0	115.9	125.6	120.9
2001-02	118.3	139.1	119.8	140.8	110.4	122.3	121.3
<i>Quarterly indexes    b</i>							
<b>1999-00</b>							
September	87.7	106.4	89.9	104.5	93.5	97.7	94.8
December	90.0	102.0	91.1	111.9	105.7	108.0	101.8
March	90.4	98.0	90.9	121.1	109.0	113.7	105.3
June	94.7	104.2	95.7	131.1	117.3	122.7	112.5
<b>2000-01</b>							
September	98.5	121.8	101.4	141.5	121.2	129.2	118.6
December	108.1	108.0	108.2	153.8	128.1	138.4	127.1
March	112.2	107.7	111.2	145.3	125.9	133.6	125.4
June	117.1	110.4	116.2	157.5	126.8	139.1	130.6
<b>2001-02</b>							
September	119.8	117.2	119.7	157.9	122.3	136.7	130.2
December	120.2	108.5	118.5	150.1	121.0	132.7	127.5
March	121.2	114.1	119.5	145.3	118.1	129.0	125.7
June	112.4	120.6	114.1	144.4	116.8	127.9	122.4

**a** In Australian dollars. Base: 1989-90 = 100. **b** In Australian dollars. Base 1994-95 = 100.  
Source: ABARE.

## Macroeconomic indicators

### 9 Australian main macroeconomic indicators

	Growth of real gross domestic product %	Growth of industrial production %	Interest rates		Inflation <sup>c</sup> %	Consumer price index <sup>d</sup>
			Short term <sup>a</sup> %	Long term <sup>b</sup> %		
1960-61	3.6	na	na	na	4.3	14.0
1961-62	1.4	na	na	na	0.4	14.1
1962-63	6.8	na	na	na	0.0	14.1
1963-64	6.9	na	na	na	1.2	14.3
1964-65	6.7	na	na	na	3.5	14.8
1965-66	1.7	na	na	na	3.7	15.3
1966-67	6.6	na	na	na	2.6	15.7
1967-68	4.5	na	na	na	3.5	16.3
1968-69	8.1	na	na	na	2.6	16.7
1969-70	6.0	na	6.7	6.1	3.1	17.2
1970-71	3.9	na	7.1	6.8	4.5	18.0
1971-72	3.8	na	6.0	6.2	6.9	19.3
1972-73	3.5	na	5.1	5.9	6.1	20.4
1973-74	5.1	na	11.3	8.2	12.9	23.0
1974-75	1.1	na	10.5	9.5	16.8	26.9
1975-76	2.7	na	8.6	10.0	12.9	30.4
1976-77	3.2	na	9.8	10.2	13.9	34.6
1977-78	0.8	0.4	10.4	9.6	9.5	37.9
1978-79	5.5	4.1	9.6	9.2	8.2	41.0
1979-80	2.4	3.7	11.2	10.7	10.2	45.2
1980-81	3.2	2.3	13.4	12.6	9.3	49.4
1981-82	3.1	2.4	17.0	15.1	10.5	54.6
1982-83	- 2.6	- 5.3	14.0	14.6	11.5	60.9
1983-84	5.3	2.9	11.9	13.8	6.7	65.0
1984-85	5.1	6.5	13.4	13.4	4.3	67.8
1985-86	4.2	2.8	16.8	13.7	8.4	73.5
1986-87	2.5	1.3	15.7	13.5	9.4	80.4
1987-88	5.4	7.5	11.8	12.5	7.3	86.3
1988-89	4.0	5.2	15.7	12.8	7.3	92.6
1989-90	3.7	1.8	16.9	13.3	8.0	100.0
1990-91	- 0.1	5.7	12.2	12.2	5.3	105.3
1991-92	0.3	- 0.8	8.1	10.0	1.9	107.3
1992-93	3.7	1.7	5.6	8.3	1.0	108.4
1993-94	3.9	3.8	4.9	7.4	1.8	110.4
1994-95	4.3	3.1	7.2	9.9	3.2	113.9
1995-96	4.2	2.6	7.5	8.7	4.2	118.7
1996-97	3.8	2.2	6.3	7.6	1.3	120.3
1997-98	4.5	1.7	5.0	6.0	0.0	120.3
1998-99	5.3	1.1	4.9	5.5	1.2	121.8
1999-00	4.0	2.7	5.6	6.5	2.4	124.7
2000-01	2.0	1.7	6.0	5.8	6.0	132.2
2001-02	3.9	1.9	4.6	5.9	2.9	136.0

<sup>a</sup> 90 day bank bills, average of end-of-month data. <sup>b</sup> 10 year Treasury bonds, average of end-of-month data. <sup>c</sup> Percentage change in the consumer price index. <sup>d</sup> 1989-90 = 100. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product*, cat. no. 5206.0, Canberra; ABS, *Balance of Payments, Australia*, cat. no. 5302.0, Canberra; ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra; ABS, *Quarterly Index of Industrial Production, Australia*, cat. no. 8125.0, Canberra; Reserve Bank of Australia, *Bulletin*, Sydney.

## Macroeconomic indicators

### 10 Australian trade balance and foreign debt

	Balance on goods and services		Current account balance <sup>a</sup>		Terms of trade <sup>b</sup>	Net foreign debt <sup>c</sup>	
	Imports \$m	Exports \$m	Level \$m	Share of GDP %		Level \$m	Share of GDP %
1960-61	2 590	2 165	-748	-4.9	104.2	na	na
1961-62	2 188	2 462	-8	-0.1	106.0	na	na
1962-63	2 596	2 483	-468	-2.8	107.7	na	na
1963-64	2 846	3 149	-70	-0.4	119.3	na	na
1964-65	3 447	3 041	-780	-3.8	113.0	na	na
1965-66	3 588	3 128	-889	-4.1	113.5	na	na
1966-67	3 770	3 484	-659	-2.8	112.8	na	na
1967-68	4 224	3 574	-1 131	-4.4	108.0	na	na
1968-69	4 360	3 897	-980	-3.4	111.4	na	na
1969-70	4 871	4 765	-688	-2.2	112.7	na	na
1970-71	5 214	5 086	-749	-2.1	101.5	na	na
1971-72	5 351	5 685	-293	-0.8	99.5	na	na
1972-73	5 512	7 016	754	1.7	117.9	na	na
1973-74	7 996	7 896	-921	-1.7	127.1	na	na
1974-75	10 510	10 114	-1 195	-1.8	115.5	na	na
1975-76	11 163	11 225	-1 423	-1.8	110.4	3 133	4.0
1976-77	14 106	13 425	-2 435	-2.7	106.9	5 160	5.7
1977-78	15 342	14 245	-2 970	-3.0	96.9	7 434	7.5
1978-79	18 260	16 910	-3 604	-3.2	97.8	9 553	8.5
1979-80	21 444	22 017	-1 974	-1.5	101.4	7 923	6.2
1980-81	25 530	22 604	-5 435	-3.7	100.5	9 361	6.4
1981-82	29 660	23 696	-9 159	-5.5	98.5	18 378	11.0
1982-83	29 667	25 632	-6 854	-3.8	97.8	25 169	14.0
1983-84	32 162	28 892	-7 832	-3.9	100.0	31 850	15.7
1984-85	40 790	35 739	-11 283	-5.0	97.5	53 055	23.6
1985-86	47 199	38 948	-15 488	-6.2	88.4	78 396	31.5
1986-87	49 032	44 306	-12 597	-4.6	81.8	87 971	32.3
1987-88	54 080	51 742	-11 744	-3.8	88.3	98 767	31.8
1988-89	62 296	55 354	-19 200	-5.5	100.3	117 240	33.3
1989-90	68 771	60 899	-22 953	-6.0	107.6	130 620	34.0
1990-91	66 948	66 259	-17 689	-4.5	101.6	142 065	35.8
1991-92	69 269	70 080	-13 377	-3.3	104.1	159 651	39.3
1992-93	79 077	76 899	-15 210	-3.6	99.7	176 048	41.3
1993-94	89 675	83 015	-16 254	-3.6	96.9	167 919	37.4
1994-95	104 496	87 654	-28 645	-5.7	92.3	186 313	39.4
1995-96	108 711	99 095	-21 452	-3.9	95.2	193 170	38.1
1996-97	119 505	105 160	-17 602	-3.1	98.1	212 986	40.0
1997-98	131 124	113 744	-22 807	-3.8	98.1	227 782	41.0
1998-99	137 451	112 025	-33 607	-5.3	93.0	225 577	39.0
1999-00	154 606	126 034	-32 221	-4.9	97.0	277 804	42.4
2000-01	152 636	153 511	-18 170	-2.7	100.0	313 472	46.4
2001-02	156 408	152 396	-21 807	-3.1	102.2	329 763	47.5

<sup>a</sup> Negative sign indicates current account deficit. <sup>b</sup> Ratio of implicit price deflator for exports of goods and services to implicit price deflator for imports of goods and services. Base: 2000-01 = 100. <sup>c</sup> As at 30 June. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product*, cat. no. 5206.0, Canberra; ABS, *Balance of Payments, Australia*, cat. no. 5302.0, Canberra; ABS, *International Investment Position, Australia*, cat. no. 5306.0, Canberra; Reserve Bank of Australia, *Bulletin*, Sydney.

## Macroeconomic indicators

### 11 Average Australian exchange rates with selected countries <sup>a</sup>

	Japan ¥/A\$	United States US\$/A\$	New Zealand NZ\$/A\$	Korea, Rep. of <sup>b</sup> won/A\$	United Kingdom £/A\$	Euro €/A\$	Trade weighted index <sup>c</sup>
1960-61	402.22	1.1193	0.805	na	0.399	na	na
1961-62	405.56	1.1213	0.805	na	0.399	na	na
1962-63	402.46	1.1185	0.805	na	0.399	na	na
1963-64	404.76	1.1168	0.805	na	0.399	na	na
1964-65	402.18	1.1137	0.805	287.6	0.399	na	na
1965-66	404.03	1.1163	0.805	303.4	0.399	na	na
1966-67	403.88	1.1144	0.805	301.6	0.399	na	na
1967-68	403.87	1.1155	0.912	304.4	0.466	na	na
1968-69	398.92	1.1124	1.000	312.5	0.466	na	na
1969-70	399.88	1.1160	1.000	335.1	0.466	na	na
1970-71	400.22	1.1185	1.000	357.6	0.466	na	99.6
1971-72	371.74	1.1710	1.000	443.9	0.462	na	98.8
1972-73	367.32	1.2835	1.032	513.9	0.524	na	104.4
1973-74	408.19	1.4743	1.034	587.0	0.617	na	115.5
1974-75	404.94	1.3700	1.016	611.2	0.584	na	107.7
1975-76	379.39	1.2613	1.193	610.3	0.633	na	105.3
1976-77	330.52	1.1531	1.193	557.4	0.674	na	96.3
1977-78	273.88	1.1276	1.127	545.9	0.618	na	89.3
1978-79	227.36	1.1365	1.079	550.0	0.568	na	83.2
1979-80	259.57	1.1143	1.132	594.3	0.499	na	83.8
1980-81	248.28	1.1612	1.233	759.7	0.508	na	87.6
1981-82	257.36	1.1048	1.374	776.6	0.601	na	91.0
1982-83	232.66	0.9383	1.333	705.5	0.581	na	81.8
1983-84	211.95	0.9057	1.382	718.7	0.623	na	81.5
1984-85	192.55	0.7741	1.611	643.2	0.634	na	75.5
1985-86	140.21	0.6979	1.291	625.7	0.485	na	62.3
1986-87	100.84	0.6609	1.231	567.4	0.433	na	53.8
1987-88	97.11	0.7262	1.122	565.9	0.415	na	54.8
1988-89	106.55	0.8139	1.302	560.8	0.474	na	61.6
1989-90	112.49	0.7667	1.302	529.4	0.470	na	60.0
1990-91	107.01	0.7824	1.304	564.4	0.422	na	58.9
1991-92	100.45	0.7664	1.380	584.6	0.436	na	55.4
1992-93	82.57	0.6968	1.306	552.9	0.447	na	52.3
1993-94	73.01	0.6889	1.224	556.8	0.460	na	51.4
1994-95	69.96	0.7390	1.169	582.8	0.468	na	52.8
1995-96	77.02	0.7553	1.130	589.8	0.488	na	54.8
1996-97	89.90	0.7801	1.126	664.2	0.483	na	58.7
1997-98	85.56	0.6797	1.142	858.4	0.412	na	58.3
1998-99	77.55	0.6257	1.181	773.4	0.381	na	56.0
1999-00	67.88	0.6295	1.248	720.4	0.395	0.628	55.2
2000-01	61.42	0.5391	1.266	653.6	0.371	0.604	50.1
2001-02	65.90	0.5238	1.215	674.5	0.363	0.585	50.6

<sup>a</sup> Period average. As at 1 October 1999, the five most important currencies and their weights in the trade weighted index for the Australian dollar were the Japanese yen (18.13 per cent), US dollar (17.35 per cent), European Euro (13.53 per cent), Korean won (6.14 per cent) and Chinese renminbi (6.04 per cent). <sup>b</sup> Average of end-of-month data. <sup>c</sup> Base: May 1970=100. Period average. **na** Not available.

Sources: ABS, *Average Monthly Exchange Rates*, cat. no. 5654.0, Canberra; Reserve Bank of Australia, *Bulletin*, Sydney.

## Macroeconomic indicators

### 12 Exchange rates of selected countries <sup>a</sup>

	Real effective exchange rates <sup>b</sup>						
	Australia A\$/US\$	Japan ¥/US\$	Germany DM/US\$	United Kingdom £/US\$	United States	Japan	Germany
1960	0.8929	360.00	4.200	0.3571	na	na	na
1961	0.8929	360.00	4.033	0.3571	na	na	na
1962	0.8929	360.00	4.000	0.3571	na	na	na
1963	0.8929	360.00	4.000	0.3571	na	na	na
1964	0.8929	360.00	4.000	0.3571	na	na	na
1965	0.8929	360.00	4.000	0.3571	na	na	na
1966	0.8929	360.00	4.000	0.3571	na	na	na
1967	0.8929	360.00	4.000	0.3614	na	na	na
1968	0.8929	360.00	4.000	0.4167	na	na	na
1969	0.8929	360.00	3.943	0.4167	na	na	na
1970	0.8929	360.00	3.660	0.4167	na	na	na
1971	0.8850	350.68	3.507	0.4108	na	na	na
1972	0.8403	303.17	3.189	0.3997	na	na	na
1973	0.7042	271.70	2.673	0.4078	na	na	na
1974	0.6944	292.08	2.588	0.4275	na	na	na
1975	0.7634	296.79	2.460	0.4501	117.6	88.0	80.1
1976	0.8130	296.55	2.518	0.5536	120.6	87.1	81.1
1977	0.9009	268.51	2.322	0.5729	118.6	93.3	85.3
1978	0.8772	210.44	2.009	0.5210	134.9	70.3	65.2
1979	0.8929	219.14	1.833	0.4713	134.4	62.0	66.0
1980	0.8772	226.74	1.818	0.4299	137.7	55.5	65.0
1981	0.8696	220.54	2.260	0.4931	150.6	59.5	60.1
1982	0.9804	249.08	2.427	0.5713	168.0	52.4	61.9
1983	1.1111	237.51	2.553	0.6592	169.2	55.6	64.1
1984	1.1364	237.53	2.846	0.7483	177.7	56.7	63.5
1985	1.4286	238.54	2.944	0.7714	183.8	56.1	64.5
1986	1.4925	168.52	2.171	0.6817	150.0	70.6	70.6
1987	1.4286	144.64	1.797	0.6102	130.9	74.2	75.6
1988	1.2821	128.15	1.756	0.5614	122.9	79.0	76.7
1989	1.2658	137.96	1.880	0.6099	124.5	75.7	76.9
1990	1.2842	144.79	1.616	0.5603	115.8	68.3	82.0
1991	1.2884	134.71	1.660	0.5652	111.6	73.3	81.3
1992	1.3658	126.65	1.562	0.5664	109.0	75.5	84.9
1993	1.4788	111.20	1.653	0.6658	111.1	89.5	90.5
1994	1.3735	102.21	1.623	0.6529	108.5	95.1	93.2
1995	1.3554	94.06	1.433	0.6335	100.0	100.0	100.0
1996	1.2830	108.57	1.503	0.6386	103.6	85.6	98.7
1997	1.3479	120.61	na	0.6196	109.5	81.7	92.9
1998	1.5936	130.47	na	0.6191	116.6	76.3	90.5
1999	1.5506	113.57	0.940	0.6157	114.8	86.9	88.0
2000	1.7179	107.56	1.083	0.6151	123.5	93.3	82.7
2001	1.9299	121.00	1.115	0.6947	135.1	82.6	82.0

<sup>a</sup> Period average. <sup>b</sup> The nominal exchange rate, trade weighted against 44 world currencies, adjusted for relative wholesale prices. Base: 1995 = 100.  
na Not available.

Sources: ABS, *Average Monthly Exchange Rates*, cat. no. 5654.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook*, Washington DC; International Monetary Fund, *International Financial Statistics cd-rom*, December 2002.

# 13 Growth of real gross domestic product in selected countries

	Australia %	United States %	OECD Europe <sup>a</sup> %	Japan %	OECD %	China <sup>b</sup> %	Korea, Rep. of %
1960	na	2.5	na	13.1	na	- 1.5	1.2
1961	0.7	2.3	5.2	11.7	4.4	- 29.7	5.9
1962	6.2	6.0	4.9	8.7	5.1	- 6.5	2.1
1963	6.2	4.3	4.7	8.7	4.8	10.7	9.1
1964	6.8	5.8	5.7	11.3	6.1	16.5	9.7
1965	5.2	6.4	4.2	5.6	5.3	16.9	5.7
1966	2.8	6.6	4.1	10.5	5.5	17.0	12.2
1967	6.8	2.5	3.4	11.1	3.7	- 7.2	5.9
1968	5.8	4.8	5.2	11.8	5.4	- 6.5	11.3
1969	6.0	3.0	6.0	12.0	5.1	19.3	13.8
1970	6.5	0.2	5.1	10.3	3.5	23.3	8.8
1971	4.7	3.3	3.3	4.5	3.3	7.0	9.2
1972	2.5	5.4	4.5	8.3	5.2	2.9	5.9
1973	5.5	5.8	5.8	8.1	5.8	8.3	14.4
1974	2.6	- 0.6	2.1	- 1.2	0.8	1.1	7.9
1975	2.7	- 0.4	- 0.5	3.2	- 0.1	8.3	7.1
1976	3.9	5.6	4.5	3.9	4.7	- 2.7	12.8
1977	1.3	4.6	2.7	4.5	3.8	7.8	10.1
1978	3.0	5.5	3.0	5.2	3.9	12.3	9.7
1979	5.2	3.2	3.4	5.5	3.7	7.0	7.6
1980	1.9	- 0.2	1.3	2.8	1.2	7.8	- 2.2
1981	3.9	2.5	0.3	3.2	2.0	4.5	6.7
1982	- 0.1	- 2.0	0.9	3.1	- 0.1	8.3	7.3
1983	0.0	4.3	1.8	2.3	3.0	10.5	11.5
1984	6.9	7.3	2.5	3.9	4.9	14.6	8.7
1985	5.1	3.8	2.5	4.4	3.6	12.9	6.5
1986	2.1	3.4	2.7	2.9	3.1	8.5	11.6
1987	4.9	3.4	2.8	4.2	3.6	11.1	11.5
1988	4.5	4.2	4.2	6.2	4.6	11.2	11.3
1989	4.4	3.5	3.6	4.8	3.8	4.3	6.4
1990	1.5	1.8	3.1	5.1	3.1	9.0	7.8
1991	- 0.9	- 0.5	1.8	3.8	1.2	9.2	9.2
1992	2.6	3.0	1.2	1.0	2.1	14.2	5.4
1993	3.8	2.7	- 0.3	0.3	1.4	13.5	5.5
1994	5.0	4.0	2.8	0.6	3.2	12.6	8.3
1995	4.0	2.7	2.5	1.6	2.5	10.5	8.9
1996	4.0	3.6	1.7	3.5	3.0	9.6	6.7
1997	3.6	4.4	2.6	1.8	3.5	8.8	5.0
1998	5.5	4.3	2.9	- 1.1	2.7	7.8	- 6.7
1999	4.5	4.1	2.6	0.7	3.2	7.1	10.9
2000	2.8	3.8	3.4	2.4	3.8	8.0	9.3
2001	2.7	0.3	1.7	0.3	0.7	7.3	3.0

<sup>a</sup> Regarded as nineteen countries for all years. <sup>b</sup> Gross national product. Excludes Hong Kong. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product*, cat. no. 5206.0, Canberra; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries*, Manila; OECD, *Main Economic Indicators*, Paris; International Monetary Fund, *International Financial Statistics Yearbook*, Washington DC.

## Macroeconomic indicators

### 14 Growth of industrial production in selected countries

	Australia %	United States %	Japan %	Germany a %	United Kingdom %	OECD %	China %	Korea, Rep. of %
1961	-6.0	0.7	19.5	5.8	0.3	na	-41.6	5.0
1962	12.2	8.3	8.3	4.4	0.9	6.5	-15.4	16.7
1963	5.7	6.1	11.2	3.3	3.4	6.2	12.6	14.3
1964	11.2	6.7	15.9	8.4	8.2	7.7	24.6	7.1
1965	4.7	9.9	3.7	5.3	2.8	6.6	27.8	8.3
1966	1.7	8.8	13.2	1.2	1.5	7.1	24.9	23.1
1967	5.6	2.2	19.4	-3.0	0.7	3.7	-15.7	26.2
1968	5.7	5.6	15.5	9.2	7.7	6.8	-9.0	31.7
1969	6.6	4.6	15.9	12.8	3.4	8.1	35.9	19.5
1970	4.6	-3.3	13.8	6.2	0.5	3.1	38.5	11.9
1971	3.9	1.4	2.7	1.4	-0.5	2.0	13.4	15.2
1972	1.2	9.7	7.1	3.7	1.8	7.1	6.5	14.6
1973	10.2	8.1	15.0	5.6	9.0	9.2	8.7	33.6
1974	3.1	-1.5	-3.8	-2.3	-2.0	-0.3	-0.4	27.4
1975	-7.6	-8.8	-11.1	-6.7	-5.4	-8.1	15.0	19.0
1976	5.1	9.2	11.0	7.2	3.3	8.3	-3.8	29.8
1977	-1.6	8.1	4.2	2.4	5.2	4.7	14.8	19.9
1978	1.5	5.9	6.3	1.9	2.8	4.1	17.1	22.9
1979	5.2	3.3	7.4	5.0	3.9	4.8	8.1	11.7
1980	0.6	-2.8	4.7	0.2	-6.6	0.2	10.9	-1.8
1981	3.0	1.6	1.0	-2.4	-3.2	0.5	1.7	12.7
1982	-0.5	-5.4	0.4	-3.2	1.9	-2.5	6.0	5.0
1983	-2.9	3.7	3.0	0.5	3.7	1.8	9.9	15.6
1984	6.9	8.9	9.5	2.8	4.3	6.5	14.9	15.1
1985	8.0	1.6	3.7	4.0	5.5	3.0	19.6	4.4
1986	-0.2	1.1	-0.3	2.0	2.4	0.9	9.6	20.6
1987	4.8	4.6	3.4	0.2	4.1	3.7	13.0	18.2
1988	5.5	4.5	9.6	3.5	4.8	5.4	17.4	13.2
1989	4.6	1.8	5.8	4.8	2.1	3.3	6.0	3.3
1990	2.4	-0.2	4.1	5.5	-0.3	1.6	5.5	8.8
1991	-3.6	-2.0	1.8	0.3	-3.4	-0.4	12.8	9.6
1992	0.3	3.1	-6.1	-1.4	0.4	-0.3	21.2	5.8
1993	2.9	3.4	-4.5	-6.6	2.2	-0.5	21.9	4.4
1994	5.4	5.5	0.7	4.1	5.4	4.6	21.4	10.9
1995	0.2	4.8	3.4	0.7	1.7	3.4	16.1	12.0
1996	4.3	4.6	2.9	-0.4	1.1	2.5	15.1	7.9
1997	2.8	6.8	3.6	3.0	1.0	4.8	13.2	6.8
1998	3.0	4.9	-7.2	4.2	0.6	1.8	8.9	-6.5
1999	3.1	4.2	0.9	1.6	0.5	3.0	8.5	24.2
2000	5.2	5.7	5.4	6.2	1.6	4.9	11.4	16.8
2001	0.3	-3.5	-7.5	0.1	-0.0	-2.6	9.9	1.8

a West Germany until 1990; unified Germany from 1991. na Not available.

Sources: ABS, *Quarterly Index of Industrial Production*, cat. no. 8125.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook*, Washington DC; OECD, *Main Economic Indicators*, Paris.

# 15 Inflation and interest rates in selected countries

	Inflation rates <sup>a</sup>			Interest rates <sup>b</sup>			
				United States		Japan	
	United States %	Japan %	Total Euro Area <sup>c</sup> %	Short term %	Long term %	Short term %	Long term %
1960	1.6	3.4	1.9	2.9	3.8	na	na
1961	1.1	5.2	1.9	2.4	4.1	na	na
1962	1.1	6.8	3.2	2.8	3.9	na	na
1963	1.4	8.5	3.1	3.2	4.2	na	na
1964	1.1	3.9	2.6	3.6	4.2	na	na
1965	1.7	6.4	3.3	4.0	4.4	na	na
1966	3.1	5.3	3.2	4.9	4.5	na	6.9
1967	2.6	3.7	3.1	4.3	5.4	na	6.9
1968	4.2	5.5	4.2	5.4	5.8	na	7.0
1969	5.6	5.2	4.7	6.7	7.0	na	7.1
1970	5.9	7.6	5.6	6.4	6.2	na	7.2
1971	4.2	6.5	5.3	4.3	5.6	na	7.3
1972	3.5	4.8	5.0	4.1	5.7	na	6.7
1973	6.2	11.7	7.8	7.0	6.5	na	7.3
1974	10.9	23.0	13.9	7.9	6.8	na	9.3
1975	9.2	11.8	11.4	5.8	7.1	na	9.2
1976	5.8	9.5	9.0	5.0	6.4	na	8.7
1977	6.4	8.1	10.1	5.3	7.3	na	7.3
1978	7.6	4.1	8.7	7.2	8.4	na	6.1
1979	11.4	3.8	11.1	10.0	9.6	8.1	7.7
1980	13.5	7.8	14.5	11.6	11.9	9.9	9.2
1981	10.3	4.9	11.3	14.1	12.9	6.8	8.7
1982	6.1	2.7	9.6	10.7	10.3	7.0	8.1
1983	3.2	1.9	8.7	8.6	11.4	6.5	7.4
1984	4.3	2.3	7.8	9.6	11.2	6.3	6.8
1985	3.5	2.0	4.9	7.5	9.0	7.4	6.3
1986	1.9	0.6	2.4	6.0	7.7	4.4	4.9
1987	3.7	0.1	2.4	5.8	8.6	3.9	4.2
1988	4.1	0.7	2.7	6.7	9.0	4.0	4.3
1989	4.8	2.3	4.0	8.1	8.6	4.7	5.1
1990	5.4	3.1	4.0	7.5	8.7	6.9	7.4
1991	4.2	3.3	4.3	5.4	8.2	7.4	6.5
1992	3.0	1.7	3.8	3.7	7.5	4.5	4.9
1993	3.0	1.2	3.4	3.2	6.5	3.0	3.7
1994	2.6	0.7	2.8	4.6	7.4	2.2	3.7
1995	2.8	- 0.1	2.6	5.9	6.9	1.2	2.5
1996	2.9	0.1	2.3	5.4	6.8	0.6	2.2
1997	2.3	1.7	1.7	5.6	6.7	0.6	1.7
1998	1.5	0.7	1.2	5.5	5.7	0.7	1.1
1999	2.2	- 0.3	1.1	5.4	5.6	0.2	1.7
2000	3.4	- 0.7	2.4	6.5	6.0	0.2	1.7
2001	2.8	- 0.7	2.5	3.7	5.0	0.1	1.3

<sup>a</sup> Percentage change in consumer price indexes. <sup>b</sup> Period average: United States – 3 month Treasury bill rate and 10 year government bond yield; Japan – 3 month certificate of deposit rate and average government bond yield. <sup>c</sup> Prior to 1985 based on total OECD statistical definition. Post 1985 based on Euro area statistical definition. na Not available.

Sources: International Monetary Fund, *International Financial Statistics*, Washington DC; International Monetary Fund, *International Financial Statistics Yearbook*, Washington DC; OECD, *Main Economic Indicators*, Paris.



## Macroeconomic indicators

### 16 Population in selected countries and regions <sup>a</sup>

	Australia million	United States million	European Union <sup>b</sup> million	Japan million	China million	Other East Asia <sup>c</sup> million	World <sup>d</sup> million
1960	10.3	180.7	279.1	94.1	665.2	191.7	3 021.5
1961	10.6	183.7	281.6	95.0	661.8	197.1	3 084.8
1962	10.7	186.5	284.6	95.8	676.3	202.5	3 148.0
1963	11.0	189.2	287.9	96.8	695.1	207.8	3 211.3
1964	11.2	191.9	290.5	97.8	708.6	214.2	3 274.6
1965	11.4	194.3	293.1	98.9	729.1	220.0	3 337.8
1966	11.6	196.6	295.2	99.8	749.1	225.9	3 409.7
1967	11.8	198.7	297.3	100.8	767.5	232.4	3 481.5
1968	12.0	200.7	299.1	102.0	789.1	238.7	3 553.4
1969	12.3	202.7	301.3	103.2	810.6	245.4	3 625.3
1970	12.5	205.1	303.1	104.3	833.8	252.1	3 697.1
1971	12.9	207.7	305.3	105.7	856.3	258.6	3 773.1
1972	13.2	209.9	307.3	107.2	875.9	265.2	3 849.1
1973	13.4	211.9	309.2	108.7	896.3	271.8	3 925.0
1974	13.7	213.9	310.6	110.2	912.9	278.5	4 001.0
1975	13.9	216.0	312.0	111.6	928.6	285.2	4 077.0
1976	14.0	218.0	313.1	112.8	941.7	286.8	4 150.5
1977	14.2	220.2	314.1	113.9	954.4	293.4	4 223.9
1978	14.4	222.6	315.0	114.9	967.4	300.1	4 297.4
1979	14.5	225.1	316.0	115.9	980.3	307.1	4 370.9
1980	14.7	227.8	318.0	116.8	1 001.2	314.6	4 444.4
1981	14.9	229.9	319.1	117.7	1 013.5	322.0	4 524.7
1982	15.2	232.2	319.8	118.5	1 025.8	328.9	4 605.1
1983	15.4	234.3	320.4	119.3	1 044.9	335.8	4 685.5
1984	15.6	236.4	321.0	120.1	1 060.3	342.7	4 765.8
1985	15.8	238.5	321.6	120.8	1 075.7	349.1	4 846.3
1986	16.0	240.7	322.3	121.5	1 092.2	356.2	4 934.0
1987	16.3	242.8	323.2	122.1	1 109.8	363.2	5 021.7
1988	16.5	245.1	324.2	122.6	1 127.5	370.1	5 109.4
1989	16.8	247.3	325.6	123.1	1 144.9	377.0	5 197.1
1990	17.1	249.9	327.9	123.5	1 161.0	380.5	5 284.8
1991	17.3	252.6	365.4	123.9	1 175.9	386.8	5 371.2
1992	17.5	255.4	367.1	124.3	1 189.4	393.4	5 457.5
1993	17.7	258.1	369.0	124.7	1 202.3	400.0	5 543.8
1994	17.8	260.7	370.4	125.0	1 214.9	406.6	5 630.1
1995	18.1	263.2	371.6	125.2	1 227.7	413.3	5 716.4
1996	18.3	266.6	372.7	125.8	1 243.3	419.9	5 804.8
1997	18.5	269.1	373.7	126.2	1 258.3	436.0	5 891.8
1998	18.7	274.0	374.6	126.3	1 262.4	432.4	5 901.1
1999	18.9	276.2	375.5	126.5	1 273.6	438.4	5 978.4
2000	19.2	275.1	375.5	128.1	1 309.7	448.0	6 111.4
2001	19.4	284.8	377.5	127.1	1 285.0	454.2	6 203.6

<sup>a</sup> Midyear. <sup>b</sup> Regarded as twelve countries for all years. <sup>c</sup> Chinese Taipei, Indonesia, Malaysia, the Philippines, Republic of Korea, Singapore, Thailand. <sup>d</sup> United Nations estimates.

Sources: ABS, *Estimated Resident Population by Sex and Age: States and Territories of Australia*, cat. no. 3201.0, Canberra; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries*, Manila; International Monetary Fund, *International Financial Statistics Yearbook*, Washington DC; OECD, *Main Economic Indicators*, Paris; United Nations, *World Population Prospects*, New York.

# 17 Australian farm returns, costs and prices

	Gross value of farm production \$m	Farm costs \$m	Net value of farm production \$m	Index of real net value of farm production ab	Index of prices received b	Index of prices paid b	Farmers' terms of trade bc	Consumer price index b
1960-61	2 745	1 717	1 028	199	26.0	11.7	222.9	11.7
1961-62	2 734	1 781	953	184	24.7	11.7	211.2	11.7
1962-63	2 990	1 865	1 125	217	25.4	11.7	217.1	11.7
1963-64	3 398	1 953	1 445	275	27.4	11.7	234.5	11.9
1964-65	3 422	2 093	1 329	244	26.7	12.1	220.0	12.3
1965-66	3 287	2 250	1 037	184	27.4	12.6	217.3	12.8
1966-67	3 806	2 415	1 391	240	27.4	13.1	209.6	13.1
1967-68	3 323	2 472	851	142	26.7	13.5	198.5	13.6
1968-69	3 927	2 673	1 254	204	26.0	13.5	193.4	13.9
1969-70	3 706	2 668	1 038	164	25.4	13.5	188.4	14.3
1970-71	3 539	2 713	826	125	23.9	13.9	171.6	15.0
1971-72	3 939	2 793	1 146	162	26.0	14.9	175.3	16.0
1972-73	4 927	3 103	1 824	243	35.6	16.2	219.9	17.0
1973-74	6 381	3 594	2 787	328	43.1	18.4	234.3	19.2
1974-75	5 841	4 196	1 645	166	36.9	23.4	158.0	22.4
1975-76	6 138	4 832	1 306	117	39.0	27.0	144.3	25.3
1976-77	6 716	5 278	1 438	113	42.5	30.1	141.1	28.8
1977-78	6 941	5 742	1 199	86	44.5	33.3	133.8	31.6
1978-79	10 207	6 629	3 578	237	54.0	35.5	152.1	34.2
1979-80	11 708	7 761	3 947	237	64.3	39.5	162.7	37.7
1980-81	11 540	8 739	2 801	154	68.4	44.9	152.2	41.2
1981-82	12 649	10 205	2 444	122	67.7	49.9	135.7	45.5
1982-83	11 636	11 403	233	10	71.1	55.3	128.6	50.7
1983-84	15 422	12 255	3 167	132	74.6	59.8	124.8	54.1
1984-85	15 473	12 896	2 577	103	76.6	63.4	121.0	56.4
1985-86	15 466	14 051	1 415	52	76.6	68.3	112.2	61.2
1986-87	17 095	15 386	1 709	58	82.8	74.2	111.6	66.9
1987-88	20 039	16 726	3 313	104	99.5	77.4	128.6	71.8
1988-89	23 222	18 395	4 827	142	112.4	84.3	133.2	77.0
1989-90	23 813	20 008	3 805	103	109.3	90.1	121.4	83.2
1990-91	21 214	20 167	1 047	27	93.6	90.8	103.0	87.6
1991-92	20 970	19 392	1 578	40	94.5	90.7	104.2	89.3
1992-93	22 120	19 340	2 780	70	93.7	89.5	104.8	90.2
1993-94	23 686	20 187	3 499	84	97.4	91.1	106.9	91.8
1994-95	23 719	21 591	2 128	51	112.0	94.9	118.1	94.7
1995-96	27 332	22 879	4 453	102	111.2	99.4	111.9	98.7
1996-97	28 259	23 808	4 451	101	101.6	99.3	102.3	100.0
1997-98	28 418	23 930	4 489	100	100.0	100.0	100.0	100.0
1998-99	28 745	24 503	4 242	93	95.0	100.0	95.0	101.2
1999-00	30 408	25 421	4 987	111	96.6	103.3	93.5	103.6
2000-01	34 088	27 145	6 942	139	108.3	110.0	98.5	109.8
2001-02	38 425	28 351	10 074	na	121.6	112.5	108.1	113.0

**a** Obtained by deflating the net value of farm production by the consumer price index. **b** ABARE revised the method for calculating farm, price and production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. **c** Ratio of index of prices received by farmers to index of prices paid by farmers.

Sources: ABS, *Australian National Accounts, National Income and Expenditure*, cat. no. 5206.0, Canberra; ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia*, cat. no. 7503.0, Canberra; ABARE.

## Farm sector

# 18 Volume of Australian farm production

	Crops			Livestock			
	Grains and oilseeds index	Other crops index	Total crops index	Livestock slaughterings index	Livestock products index	Total livestock index	Total farm index
1960-61	28.9	25.0	25.7	32.6	79.2	53.6	37.0
1961-62	24.7	23.2	24.0	39.3	83.1	58.3	38.5
1962-63	29.7	27.0	27.8	43.3	82.3	59.4	41.5
1963-64	31.2	28.7	28.7	45.6	86.4	62.9	43.3
1964-65	34.6	30.4	31.4	47.0	87.2	64.1	45.3
1965-66	25.8	29.7	27.1	45.1	84.2	61.0	41.9
1966-67	44.9	35.0	38.2	43.7	88.5	62.8	49.3
1967-68	26.2	31.6	28.4	45.8	88.1	64.2	43.6
1968-69	50.4	40.7	42.2	48.0	93.1	69.1	52.5
1969-70	38.8	36.7	36.4	51.9	98.0	74.0	51.2
1970-71	35.9	37.1	35.2	55.0	95.7	75.1	50.8
1971-72	39.7	39.8	38.4	60.1	94.8	78.0	53.9
1972-73	28.9	39.1	33.1	66.8	83.8	76.9	50.6
1973-74	46.0	34.8	39.5	65.5	80.4	74.5	53.2
1974-75	44.3	35.8	39.1	61.4	86.0	75.3	53.3
1975-76	48.4	34.9	40.6	74.0	82.6	79.4	55.8
1976-77	46.6	37.4	41.1	79.2	76.3	78.4	56.0
1977-78	39.2	40.8	39.4	86.8	74.5	81.0	55.8
1978-79	71.2	41.1	54.9	82.9	76.5	79.9	64.8
1979-80	63.6	41.9	51.6	72.5	76.8	73.9	60.1
1980-81	46.7	44.0	44.4	70.3	73.7	71.3	55.2
1981-82	66.2	48.6	56.1	73.6	75.0	73.7	62.9
1982-83	37.2	48.8	41.6	74.3	75.4	74.2	54.8
1983-84	88.6	53.7	69.6	69.0	79.5	73.4	70.3
1984-85	80.5	55.7	66.6	68.9	85.5	76.1	69.8
1985-86	71.7	59.4	64.0	72.4	87.0	78.6	69.5
1986-87	70.3	58.8	63.0	77.1	92.3	83.5	71.3
1987-88	60.5	63.8	61.2	79.7	94.0	85.6	71.4
1988-89	65.0	62.1	62.4	76.2	97.4	85.9	72.3
1989-90	65.3	65.1	64.2	82.5	108.1	94.3	77.2
1990-91	67.9	73.4	70.0	84.7	106.5	94.7	80.3
1991-92	61.7	78.1	69.9	87.7	95.5	91.2	78.6
1992-93	77.1	78.9	77.3	89.4	98.6	93.6	83.7
1993-94	85.4	80.4	81.7	91.3	99.9	95.2	87.0
1994-95	51.1	73.6	62.8	92.1	94.2	93.1	75.7
1995-96	89.7	82.0	85.2	91.4	94.5	92.9	88.6
1996-97	115.0	88.4	100.1	94.9	98.3	96.5	98.7
1997-98	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1998-99	116.6	102.5	108.2	102.8	104.0	103.3	106.0
1999-00	125.8	105.8	113.9	104.7	105.8	105.2	109.9
2000-01	118.4	105.3	110.6	108.6	105.2	107.3	109.2
2001-02	123.9	111.1	116.3	108.3	106.0	107.4	112.2

*Note:* ABARE revised the method for calculating farm production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

*Sources:* ABS, *Australian National Accounts, National Income and Expenditure*, cat. no. 5206.0, Canberra; ABS, *Agriculture Australia*, cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia*, cat. no. 7503.0, Canberra; ABARE.

# 19

## Gross value of Australian farm production

	Crops			Livestock			
	Grains and oilseeds \$m	Other crops \$m	Total crops \$m	Livestock slaughterings \$m	Livestock products \$m	Total livestock \$m	Total farm \$m
1960-61	536	536	1 072	533	1 140	1 674	2 745
1961-62	489	519	1 008	517	1 209	1 726	2 734
1962-63	577	559	1 136	574	1 279	1 854	2 990
1963-64	601	627	1 228	634	1 536	2 170	3 398
1964-65	661	659	1 320	733	1 369	2 102	3 422
1965-66	522	659	1 182	785	1 321	2 106	3 287
1966-67	894	745	1 639	796	1 371	2 167	3 806
1967-68	555	714	1 269	818	1 237	2 054	3 323
1968-69	904	812	1 716	892	1 319	2 211	3 927
1969-70	695	758	1 453	1 008	1 245	2 253	3 706
1970-71	674	802	1 476	1 011	1 052	2 063	3 539
1971-72	740	857	1 597	1 135	1 207	2 342	3 939
1972-73	610	972	1 582	1 542	1 803	3 345	4 927
1973-74	1 761	1 098	2 858	1 697	1 826	3 523	6 381
1974-75	1 767	1 438	3 204	1 020	1 617	2 637	5 841
1975-76	1 839	1 409	3 249	1 247	1 643	2 889	6 138
1976-77	1 638	1 551	3 189	1 686	1 841	3 527	6 716
1977-78	1 441	1 607	3 047	1 970	1 924	3 894	6 941
1978-79	3 080	1 833	4 913	3 138	2 157	5 294	10 207
1979-80	3 376	2 179	5 555	3 616	2 537	6 153	11 708
1980-81	2 673	2 637	5 311	3 485	2 744	6 229	11 540
1981-82	3 661	2 651	6 313	3 295	3 041	6 336	12 649
1982-83	2 331	2 672	5 003	3 454	3 179	6 633	11 636
1983-84	5 184	3 227	8 411	3 526	3 485	7 011	15 422
1984-85	4 807	3 073	7 880	3 808	3 785	7 593	15 473
1985-86	4 061	3 372	7 433	3 904	4 129	8 033	15 466
1986-87	3 751	3 827	7 578	4 585	4 931	9 516	17 095
1987-88	3 531	4 252	7 783	4 994	7 262	12 256	20 039
1988-89	4 698	5 146	9 844	5 484	7 894	13 378	23 222
1989-90	4 428	5 734	10 162	5 845	7 806	13 651	23 813
1990-91	3 366	5 779	9 145	5 715	6 354	12 069	21 214
1991-92	3 849	6 161	10 010	5 706	5 253	10 959	20 970
1992-93	4 788	6 108	10 896	6 016	5 208	11 224	22 120
1993-94	5 144	6 544	11 688	6 831	5 167	11 998	23 686
1994-95	4 000	7 102	11 102	6 622	5 995	12 617	23 719
1995-96	7 407	7 826	15 233	6 398	5 701	12 099	27 332
1996-97	7 998	8 172	16 170	6 336	5 753	12 089	28 259
1997-98	6 621	8 882	15 503	6 968	5 948	12 916	28 418
1998-99	6 881	9 201	16 082	7 238	5 425	12 663	28 745
1999-00	7 821	9 276	17 097	7 925	5 386	13 311	30 408
2000-01	8 553	9 969	18 523	9 518	6 046	15 565	34 088
2001-02	9 886	10 345	20 231	11 255	6 939	18 194	38 425

Sources: ABS, *Australian National Accounts, National Income and Expenditure*, cat. no. 5206.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia*, cat. no. 7503.0, Canberra; ABARE.

## Farm sector

### 20 Value of Australian agricultural exports (fob)

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Grains and oilseeds</b>								
Wheat (including flour)	1 632	3 389	4 346	3 687	3 467	3 481	4 197	4 612
Barley (including malt)	413	876	999	726	877	822	1 101	1 250
Oats	18	50	26	30	38	27	22	37
Sorghum	19	97	70	50	46	81	122	109
Rice	290	333	318	402	417	386	369	286
Lupins	89	85	195	193	171	230	122	131
Peas <sup>a</sup>	41	62	97	67	63	90	112	157
Chickpeas	24	51	120	118	50	101	113	167
Canola	38	138	124	256	558	638	544	572
Cottonseed	34	42	45	68	91	122	137	148
Other oilseeds <sup>b</sup>	23	15	21	20	24	28	28	19
<b>Total</b>	<b>2 620</b>	<b>5 138</b>	<b>6 362</b>	<b>5 618</b>	<b>5 800</b>	<b>6 008</b>	<b>6 865</b>	<b>7 487</b>
<b>Industrial crops</b>								
Raw cotton <sup>c</sup>	678	762	1 077	1 386	1 559	1 407	1 957	1 547
Sugar	1 629	1 552	1 546	1 706	1 289	1 092	1 111	1 392
Wine	382	474	599	813	991	1 352	1 630	2 000
<b>Total</b>	<b>2 689</b>	<b>2 788</b>	<b>3 222</b>	<b>3 904</b>	<b>3 839</b>	<b>3 851</b>	<b>4 698</b>	<b>4 940</b>
Other crops	1 783	2 048	2 160	2 297	2 485	2 777	3 143	3 429
<b>Total crops</b>	<b>7 092</b>	<b>9 974</b>	<b>11 744</b>	<b>11 820</b>	<b>12 124</b>	<b>12 636</b>	<b>14 706</b>	<b>15 856</b>
<b>Meat and live animals for slaughter</b>								
Beef and veal <sup>d</sup>	2 846	2 384	2 071	2 610	2 863	3 119	4 007	4 189
Live cattle <sup>d</sup>	201	344	428	333	343	433	482	526
Mutton <sup>d</sup>	323	299	288	369	309	326	416	490
Lamb <sup>d</sup>	172	199	240	275	305	369	508	626
Live sheep <sup>d</sup>	184	227	190	193	182	180	258	392
Pig meat	23	30	33	52	71	159	186	265
Poultry meat	13	13	14	18	23	21	26	26
Canned meat <sup>d</sup>	59	39	34	47	53	50	16	39
<b>Total</b>	<b>3 821</b>	<b>3 535</b>	<b>3 298</b>	<b>3 896</b>	<b>4 148</b>	<b>4 656</b>	<b>5 898</b>	<b>6 553</b>
<b>Wool</b>								
Greasy <sup>e</sup>	2 685	2 137	2 188	2 336	1 457	1 796	2 310	2 271
Semiprocessed	1 314	1 276	1 292	1 378	994	1 031	1 289	1 119
Skins	217	251	264	307	132	136	298	297
<b>Total e</b>	<b>4 216</b>	<b>3 664</b>	<b>3 744</b>	<b>4 020</b>	<b>2 583</b>	<b>2 963</b>	<b>3 897</b>	<b>3 687</b>
<b>Dairy products</b>								
Butter	159	181	220	238	294	291	291	297
Cheese	401	463	476	607	695	807	950	1 033
Casein	35	30	33	43	67	81	89	77
Skim milk powder	399	479	473	444	496	478	694	698
Wholemilk powder	183	255	268	275	364	403	580	571
Other dairy products	262	284	309	329	341	380	442	520
<b>Total</b>	<b>1 440</b>	<b>1 692</b>	<b>1 779</b>	<b>1 937</b>	<b>2 257</b>	<b>2 439</b>	<b>3 047</b>	<b>3 196</b>
Other livestock exports	1 296	1 319	1 302	1 417	1 444	1 452	1 884	1 771
<b>Total livestock exports</b>	<b>10 774</b>	<b>10 211</b>	<b>10 123</b>	<b>11 270</b>	<b>10 432</b>	<b>11 510</b>	<b>14 725</b>	<b>15 207</b>
<b>Total farm exports</b>	<b>17 866</b>	<b>20 184</b>	<b>21 867</b>	<b>23 089</b>	<b>22 556</b>	<b>24 146</b>	<b>29 431</b>	<b>31 063</b>

<sup>a</sup> Field peas and cowpeas. <sup>b</sup> Includes soybeans, linseed, sunflowerseed, safflowerseed and peanuts. Excludes meals and oils. <sup>c</sup> Excludes cotton waste and lint. <sup>d</sup> Based on quantity data from Agriculture, Fisheries and Forestry – Australia and export price data from the ABS. <sup>e</sup> On a balance of payments basis. ABS recorded trade data adjusted for changes in stock levels held overseas by Wool International.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia; ABARE.

## 21 Value of Australian agricultural exports (fob), by destination

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Africa</b>								
Egypt	83	293	532	314	579	500	544	719
South Africa	191	243	240	200	172	158	201	150
Total	357	692	932	918	1 169	992	1 308	1 552
<b>Americas</b>								
United States	1 176	973	1 109	1 494	1 684	2 044	2 862	3 408
Canada	406	407	438	468	452	435	566	686
Total	1 795	1 592	1 880	2 262	2 483	2 778	3 824	4 516
<b>North Asia</b>								
China	1 494	1 801	1 552	1 535	1 333	1 870	2 144	2 435
Chinese Taipei	666	700	732	714	741	752	800	843
Japan	4 110	4 021	3 605	4 012	3 964	4 168	4 761	4 556
Korea, Rep. of	1 128	993	975	983	1 099	1 168	1 451	1 627
Total	7 809	8 012	7 345	7 745	7 590	8 431	9 687	9 950
<b>South East Asia</b>								
Indonesia	705	1 160	1 429	1 204	1 071	1 069	1 554	1 626
Malaysia	795	936	912	927	789	753	989	1 091
Phillipines	386	457	490	495	599	631	700	620
Singapore	389	383	401	398	428	537	571	611
Thailand	306	368	401	452	515	527	673	600
Total	2 622	3 357	3 678	3 633	3 600	3 747	4 739	4 797
<b>South Asia</b>	348	557	1 160	1 485	1 186	1 268	1 216	1 229
<b>Middle East</b>	782	1 522	2 143	1 576	1 873	2 003	2 935	3 263
<b>Europe</b>								
European Union <sup>a</sup>	2 105	2 008	2 224	2 762	2 425	2 496	3 255	2 939
Russian Federation	48	55	56	141	31	22	79	88
Total	2 232	2 184	2 386	3 075	2 596	2 641	3 473	3 169
<b>Oceania</b>	796	816	841	904	926	988	1 133	1 302
New Zealand	503	533	538	590	628	680	807	964
<b>Other <sup>b</sup></b>	1 125	1 452	1 504	1 491	1 133	1 299	1 115	1 286
<b>Total</b>	<b>17 866</b>	<b>20 184</b>	<b>21 867</b>	<b>23 089</b>	<b>22 556</b>	<b>24 146</b>	<b>29 431</b>	<b>31 063</b>

<sup>a</sup> Fifteen countries. <sup>b</sup> Includes commodities such as rice and lupins for which export data are not available by destination.

*Note:* For some agricultural commodities (namely, wheat, sugar and barley), data are only available by volume to specific export destinations. The country export values for these commodities are calculated using an average export unit return to all destinations.

*Sources:* ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

## Farm sector

# 22 Indexes of prices received by farmers in Australia

	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
<b>Crops sector</b>									
Grains and oilseeds									
Wheat	89.7	86.6	78.9	85.2	110.6	102.0	69.0	103.8	93.4
Barley	86.7	76.5	77.8	85.6	109.2	111.2	75.3	86.2	92.8
Sorghum	85.1	75.5	67.0	73.5	89.3	85.6	80.3	83.7	94.1
Oats	69.6	75.9	74.8	81.0	92.8	79.4	72.1	78.8	78.9
Lupins	67.3	82.7	88.9	93.4	105.4	118.9	115.0	88.8	106.1
Canola	51.4	41.9	52.7	58.8	76.8	66.5	62.3	61.8	69.7
Total	88.6	84.4	79.4	87.9	107.7	102.1	75.7	95.3	94.2
Cotton	60.8	55.6	76.6	71.0	79.3	98.9	104.6	88.3	91.8
Sugar	68.8	69.7	82.9	84.5	96.5	109.8	102.6	90.4	89.6
Hay	48.9	60.7	59.7	64.4	74.1	80.3	95.1	95.6	77.3
Fruit	60.1	62.4	69.0	72.6	88.2	85.5	90.6	95.1	85.4
Wine grapes	31.7	29.1	32.9	49.6	49.5	59.6	46.7	53.8	52.5
Vegetables	60.6	69.4	84.4	79.6	112.4	122.5	86.5	89.8	94.3
Total crops sectors	77.1	75.9	78.5	83.4	102.1	103.2	84.9	93.4	91.9
<b>Livestock sector</b>									
Livestock for slaughter									
Cattle	97.8	97.2	105.6	109.1	119.9	129.2	123.2	117.9	117.0
Lambs	54.4	47.7	66.9	67.1	70.1	64.2	52.8	58.4	85.2
Sheep	48.1	35.1	45.3	55.8	69.3	29.4	8.8	21.4	39.0
Live sheep for export	76.0	68.6	79.2	86.8	79.2	78.0	34.7	47.8	55.7
Pigs	86.7	83.3	85.3	93.0	105.2	106.5	114.0	101.0	98.4
Poultry	69.3	74.4	77.9	85.6	98.6	100.4	100.7	93.6	97.7
Total	84.5	82.8	91.4	96.2	105.9	108.7	102.9	99.1	102.4
Livestock products									
Wool	76.0	82.5	95.2	153.2	156.5	131.9	99.7	86.7	75.1
Milk – market	62.7	61.6	65.5	66.7	73.8	76.9	79.4	81.5	84.7
Milk – manufacturing	47.3	54.1	62.7	74.4	87.8	95.7	97.1	99.8	113.0
Milk – total	55.0	58.4	65.0	72.1	82.9	88.8	90.7	93.2	102.3
Eggs	100.7	98.9	94.6	98.1	107.5	99.0	96.4	92.0	95.3
Honey	44.8	53.3	63.2	62.7	58.8	60.0	71.1	80.8	82.3
Total	72.9	78.0	87.9	127.0	133.3	118.7	98.1	90.6	87.4
Store and breeding stock	67.7	64.2	73.0	83.0	92.3	88.6	82.0	79.7	78.8
Total livestock sector	78.4	79.6	89.0	110.6	118.7	112.4	99.1	93.7	93.6
<b>Total prices received</b>	<b>76.6</b>	<b>76.6</b>	<b>82.8</b>	<b>99.5</b>	<b>112.4</b>	<b>109.3</b>	<b>93.6</b>	<b>94.5</b>	<b>93.7</b>

*Continued*

## 22 Indexes of prices received by farmers in Australia *(continued)*

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Crops sector</b>									
Grains and oilseeds									
Wheat	88.3	124.9	136.3	107.5	100.0	92.1	96.6	109.3	124.7
Barley	79.0	135.1	143.7	116.6	100.0	87.7	109.2	127.1	135.9
Sorghum	85.9	112.3	119.0	106.7	100.0	88.1	80.3	101.3	121.7
Oats	65.6	131.3	112.9	100.3	100.0	63.7	74.9	89.1	124.6
Lupins	96.2	95.3	106.7	111.8	100.0	79.8	84.8	106.0	191.9
Canola	77.3	80.0	81.4	75.6	100.0	89.6	75.0	82.8	111.1
Total	89.9	120.9	126.1	105.1	100.0	88.8	93.7	103.3	121.1
Cotton	98.6	123.5	121.3	103.1	100.0	88.4	97.5	102.8	98.9
Sugar	102.8	112.7	110.2	100.0	100.0	98.7	80.7	76.5	97.6
Hay	78.3	108.8	102.3	93.6	100.0	98.4	100.0	110.7	104.2
Fruit	87.0	101.1	103.0	109.6	100.0	108.7	105.9	104.3	105.9
Wine grapes	58.0	72.8	82.4	88.5	100.0	84.2	99.3	102.9	102.1
Vegetables	100.6	115.1	115.2	100.9	100.0	112.7	104.6	118.1	113.3
Total crops sectors	92.5	115.2	118.2	104.1	100.0	94.6	94.3	103.1	112.5
<b>Livestock sector</b>									
Livestock for slaughter									
Cattle	134.1	126.1	104.9	93.0	100.0	105.9	119.9	148.3	164.4
Lambs	97.6	89.9	116.9	121.4	100.0	103.8	97.4	109.2	159.3
Sheep	48.4	58.3	85.9	85.0	100.0	85.2	71.5	124.1	223.9
Live sheep for export	66.8	82.8	98.5	92.7	100.0	94.0	95.3	111.4	156.1
Pigs	95.3	96.4	122.4	123.2	100.0	94.2	119.3	123.1	133.8
Poultry	101.7	98.2	99.6	107.2	100.0	94.1	90.9	90.2	97.2
Total	113.9	109.9	106.5	101.0	100.0	101.2	110.0	127.9	149.2
Livestock products									
Wool	75.2	115.4	93.3	91.9	100.0	79.3	83.0	98.7	126.6
Milk – market	87.0	93.8	98.6	100.6	100.0	97.4	98.9	54.8	57.3
Milk – manufacturing	106.5	97.8	113.6	105.0	100.0	95.3	85.2	119.6	125.0
Milk – total	99.2	96.5	108.2	103.4	100.0	96.0	89.8	98.7	103.2
Eggs	91.4	88.6	101.7	105.2	100.0	85.3	84.0	79.1	80.7
Honey	76.8	81.7	90.2	101.6	100.0	101.1	94.3	94.3	115.0
Total	86.1	105.8	100.8	98.1	100.0	87.7	86.1	96.7	110.1
Store and breeding stock	95.0	96.7	96.1	89.4	100.0	100.9	105.0	126.0	145.3
Total livestock sector	99.9	107.0	103.2	98.8	100.0	95.4	99.4	114.4	132.3
<b>Total prices received</b>	<b>97.4</b>	<b>112.0</b>	<b>111.2</b>	<b>101.6</b>	<b>100.0</b>	<b>95.0</b>	<b>96.6</b>	<b>108.3</b>	<b>121.6</b>

*Note:* ABARE revised the method for calculating these indexes in October 1999. The indexes for commodity groups are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. Indexes for most individual commodities are based on annual gross unit value of production.

*Source:* ABARE.



## Farm sector

# 23 Farm land use and livestock numbers in Australia

	Area used for <sup>a</sup>			Livestock numbers <sup>b</sup>		
	Wheat million ha	Other crops million ha	Total area of farms million ha	Beef cattle million	Dairy cattle million	Sheep million
1960-61	5.4	5.6	468.1	12.43	4.90	152.68
1961-62	6.0	5.3	474.5	12.99	5.05	157.71
1962-63	6.7	5.5	476.6	13.47	5.08	158.63
1963-64	6.7	5.4	479.4	14.12	4.93	164.98
1964-65	7.3	5.8	481.9	13.97	4.84	170.62
1965-66	7.1	6.2	486.2	13.25	4.69	157.56
1966-67	8.4	6.6	487.0	13.65	4.62	164.24
1967-68	9.1	5.4	489.5	14.73	4.49	166.91
1968-69	10.8	5.8	490.6	16.28	4.34	174.60
1969-70	9.5	6.1	494.7	17.93	4.23	174.26
1970-71	6.5	6.9	497.2	20.26	4.11	171.74
1971-72	7.1	7.1	499.5	23.36	4.01	155.39
1972-73	7.6	6.7	499.8	25.12	3.98	134.10
1973-74	8.9	6.2	500.5	27.08	3.76	139.45
1974-75	8.3	5.5	499.6	29.07	3.73	145.83
1975-76	8.6	5.9	500.7	29.83	3.60	144.11
1976-77	9.0	6.0	491.5	28.27	3.27	131.32
1977-78	10.0	6.8	489.4	26.27	3.06	127.46
1978-79	10.2	7.2	493.2	24.25	2.87	130.50
1979-80	11.2	6.9	495.6	23.37	2.83	132.71
1980-81	11.3	7.0	495.4	22.37	2.80	131.44
1981-82	11.9	7.7	490.8	21.77	2.78	135.02
1982-83	11.5	7.9	483.8	19.72	2.76	130.51
1983-84	12.9	9.1	488.6	19.36	2.81	135.14
1984-85	12.1	9.1	489.2	19.98	2.81	145.67
1985-86	11.7	9.2	468.3	20.68	2.76	150.40
1986-87	11.3	8.6	471.0	20.96	2.71	153.18
1987-88	9.1	9.4	472.0	20.88	2.64	156.54
1988-89	8.9	8.7	466.9	21.42	2.62	164.91
1989-90	9.0	7.9	464.3	22.28	2.59	173.38
1990-91	9.2	8.2	462.8	22.88	2.50	166.57
1991-92	7.2	9.2	466.0	22.83	2.50	151.00
1992-93	9.1	9.0	460.1	22.65	2.53	140.54
1993-94	8.4	9.8	469.0	23.08	2.68	132.57
1994-95	7.9	8.9	463.3	22.99	2.74	120.86
1995-96	9.2	10.3	465.2	23.57	2.81	121.12
1996-97	10.9	10.5	462.2	23.74	2.96	120.23
1997-98	10.4	10.2	463.8	23.78	3.08	117.49
1998-99	11.5	12.8	453.7	23.36	3.22	115.46
1999-00	12.2	12.2	455.5	24.45	3.14	118.60
2000-01	12.1	11.6	455.7	24.52	3.22	110.93
2001-02	11.6	10.8	na	24.93	3.10	103.00

<sup>a</sup> 1960–61 to 1998–99 years ended 31 March. From 1999-00, year ended 30 June. Details for establishments with estimated value of agricultural operations (EVAO) of \$2 500 or more until 1985-86; EVAO of \$5 000 or more from 1986-87 to 1988-89; EVAO of \$20 000 or more from 1989-90 to 1990-91; EVAO of \$22 500 or more from 1991-92 to 1992-93; and EVAO of \$5 000 or more from 1993-94. <sup>b</sup> At 31 March. From 1999-00, as at 30 June. Before 1987, includes livestock holdings on establishments with an EVAO of \$2 500 or more. From 1987, the EVAO has been raised to \$5 000.

na Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia (Preliminary)*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Livestock and Livestock Products, Australia*, cat. no. 7221.0, Canberra; ABS, *Crops and Pastures, Australia*, cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; ABS, *Agricultural Land Use and Selected Inputs, Australia*, cat. no. 7411.0, Canberra; ABARE.

## 24 Number of agricultural establishments and rural employment in Australia

Rural employment <sup>b</sup>					
	Agricultural establishments <sup>a</sup> no.	Employers and self-employed '000	Wage and salary earners '000	Unpaid family helpers '000	Total '000
1960-61	202 800	na	na	na	448.1
1961-62	202 200	na	na	na	453.0
1962-63	201 600	na	na	na	443.2
1963-64	201 000	na	na	na	435.1
1964-65	200 350	na	na	na	429.2
1965-66	199 750	na	na	na	423.0
1966-67	198 400	251.9	139.4	25.7	416.9
1967-68	197 050	250.0	143.0	23.2	416.1
1968-69	195 700	242.4	142.2	25.4	409.9
1969-70	192 550	237.7	146.9	21.8	406.4
1970-71	189 400	243.0	148.9	22.8	414.6
1971-72	187 650	239.6	144.8	22.8	407.1
1972-73	185 900	236.0	143.3	22.1	401.4
1973-74	184 150	238.3	136.9	16.0	391.2
1974-75	182 250	238.7	127.0	16.1	381.9
1975-76	180 400	243.4	118.5	16.7	378.6
1976-77	173 650	248.3	107.1	17.6	373.0
1977-78	176 150	237.0	107.1	19.8	363.9
1978-79	177 220	233.1	113.9	14.1	361.1
1979-80	179 080	239.5	124.4	14.7	378.6
1980-81	175 760	243.9	124.9	13.6	382.4
1981-82	174 469	236.0	132.1	11.9	379.9
1982-83	175 729	253.4	120.6	16.8	390.8
1983-84	174 025	249.0	121.5	12.2	382.6
1984-85	171 441	248.1	116.8	11.2	376.0
1985-86	169 716	261.3	124.9	18.4	404.6
1986-87	128 707	250.1	118.6	25.4	394.1
1987-88	126 543	242.0	122.3	26.8	391.1
1988-89	125 708	245.9	133.1	25.5	404.5
1989-90	127 778	236.2	149.4	16.9	402.5
1990-91	124 975	238.3	143.4	26.8	408.6
1991-92	120 558	230.4	128.8	23.8	383.0
1992-93	120 655	227.7	122.4	27.2	377.3
1993-94	117 189	227.5	128.7	26.8	383.0
1994-95	116 193	228.2	148.3	26.8	403.4
1995-96	115 430	228.2	163.7	26.6	418.5
1996-97	114 187	225.6	171.0	25.3	421.9
1997-98	115 285	236.0	174.5	20.3	430.8
1998-99	116 478	214.1	188.8	18.9	421.8
1999-00	119 076	218.6	196.0	23.4	438.0
2000-01	119 626	206.8	200.5	21.8	429.1
2001-02	na	210.0	215.4	12.9	438.3

<sup>a</sup> As at 31 March. Before 1986-87, includes agricultural establishments with an estimated value of agricultural operations (EVAO) of \$2 500 or more. From 1986-87, the EVAO threshold was raised to \$20 000, and from 1991-92, the EVAO threshold was raised to \$22 500. <sup>b</sup> Average over four quarters. Between 1955-56 and 1993-94, the data refer to agriculture and services to agriculture. From 1994-95, data refer to agriculture, forestry, fishing and hunting, and services to these industries. **na** Not available.

Sources: ABS, *NIF-10S Model Data*, cat. no. 1313.0, Canberra; ABS, *Labour Statistics, Australia*, cat. no. 6101.0, Canberra; ABS, *The Labour Force, Australia*, cat. no. 6203.0, Canberra; ABS, *Characteristics of Australian Farms*, cat. no. 7102.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; Powell, R.A., *Technological change in Australian agriculture: 1920-21 to 1969-70*, PhD thesis, University of New England, Armidale; ABARE.

## Farm sector

### 25 Summary of farm sector and other rural exports <sup>a</sup>

	Cereal grains and products \$m	Sugar products and honey \$m	Meat and meat preparations \$m	Wool and sheepskins \$m	Other rural <sup>b</sup> \$m	Total \$m
<b>At current prices</b>						
1970-71	596	160	428	594	386	2 164
1971-72	623	223	558	631	441	2 476
1972-73	421	259	857	1 270	592	3 399
1973-74	748	230	795	1 242	588	3 603
1974-75	1 460	661	444	770	605	3 940
1975-76	1 397	599	668	1 043	730	4 437
1976-77	1 317	645	886	1 558	935	5 341
1977-78	1 330	544	1 118	1 292	1 075	5 359
1978-79	1 182	466	1 711	1 608	1 390	6 357
1979-80	2 957	719	1 729	1 790	1 667	8 862
1980-81	2 339	1 198	1 592	1 920	1 648	8 697
1981-82	2 494	794	1 417	1 893	1 799	8 397
1982-83	1 837	596	1 632	1 819	2 020	7 904
1983-84	2 861	665	1 357	1 960	2 135	8 978
1984-85	4 000	625	1 409	2 651	2 509	11 194
1985-86	3 848	652	1 698	3 028	2 972	12 198
1986-87	2 759	698	2 247	3 920	3 570	13 194
1987-88	2 298	701	2 557	5 806	3 979	15 341
1988-89	2 828	934	2 270	5 984	4 053	16 069
1989-90	3 288	1 104	2 936	3 753	4 484	15 565
1990-91	2 436	948	3 173	2 887	4 897	14 341
1991-92	2 352	747	3 434	3 829	5 657	16 019
1992-93	2 954	1 072	3 750	3 367	6 450	17 593
1993-94	3 205	1 315	4 043	3 369	7 087	19 019
1994-95	2 523	1 730	3 654	4 216	7 529	19 652
1995-96	4 926	1 712	3 292	3 664	8 428	22 022
1996-97	5 954	1 694	2 957	3 744	9 339	23 688
1997-98	5 094	1 939	3 731	4 020	10 472	25 256
1998-99	5 046	1 472	4 008	2 583	11 572	24 681
1999-00	4 941	1 229	4 467	2 963	13 089	26 689
2000-01	5 834	1 330	5 796	3 897	15 693	32 550
2001-02	5 994	1 576	6 245	3 687	16 335	33 836

<sup>a</sup> On a balance of payments basis. <sup>b</sup> Includes other farm, forest and fisheries products. Also includes wine, paper and paperboard, and tuna transhipped at sea or captured under joint venture agreements, which are not included in rural exports by the ABS.

Sources: ABS, *Balance of Payments, Australia*, cat. no. 5302.0, Canberra; ABARE.

## 26 Summary of operations of mineral resource establishments <sup>a</sup>

	Number of establish- ments at 30 June no.	Employ- ment at 30 June <sup>b</sup> no.	Wages and salaries <sup>c</sup> \$m	Turnover \$m	Stocks		Purchases, transfers in and selected expenses \$m	Value added \$m
					Opening \$m	Closing \$m		
<b>Mining <sup>d</sup></b>								
1973-74	1 307	64 056	481	2 798	216	243	828	1 996
1974-75	1 306	69 122	675	3 726	242	341	1 156	2 669
1975-76	1 271	67 609	783	4 257	346	479	1 340	3 050
1976-77	1 277	67 888	928	5 062	473	548	1 589	3 548
1977-78	1 352	66 312	1 018	5 777	579	639	1 962	3 875
1978-79	1 368	66 563	1 096	6 561	643	654	2 166	4 407
1979-80	1 448	73 805	1 286	8 042	651	795	2 702	5 484
1980-81	1 514	80 033	1 594	9 329	806	1 064	3 364	6 224
1981-82	1 490	79 745	1 882	10 199	1 075	1 350	3 776	6 698
1982-83	1 542	77 755	2 063	11 901	1 333	1 710	4 169	8 109
1983-84	1 630	77 926	2 129	13 524	1 699	1 700	4 700	8 825
1984-85	1 649	78 063	2 307	16 291	1 786	1 716	5 611	10 610
1985-86	1 528	78 945	2 573	19 618	1 656	1 818	6 824	12 956
1986-87	1 451	78 233	2 772	19 257	1 829	2 285	6 798	12 914
1987-88	1 475	76 753	2 883	20 912	2 246	2 166	7 226	13 606
1988-89	375	64 746	2 690	20 830	2 052	2 017	6 640	14 155
1989-90	1 313	78 373	3 504	26 573	2 205	2 581	8 789	18 160
1990-91	527	65 776	3 550	28 899	2 435	2 606	8 907	20 164
1991-92	499	61 348	3 567	28 371	2 496	2 580	9 313	19 143
1992-93	1 095	66 462	3 820	31 507	2 903	2 870	10 381	21 093
1993-94	516	56 465	3 627	29 018	2 614	2 517	9 989	18 933
1994-95	499	55 014	3 594	28 882	2 508	2 517	10 219	18 654
1995-96	511	56 529	3 882	31 014	2 761	2 501	11 392	19 882
1996-97	503	56 168	4 077	34 234	2 786	3 354	12 380	22 422
1997-98	528	51 048	4 157	37 558	3 353	3 318	13 540	23 770
1998-99	527	45 703	3 910	37 524	3 471	3 296	13 230	24 120
1999-00	529	53 169	4 169	42 632	3 897	4 146	12 705	24 412
2000-01	na	52 854	4 344	54 883	4 008	3 496	na	33 958

<sup>a</sup> From 1992-93, the classification of census units is based on the 1993 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Before 1992-93, classification of census units was based on the Australian Standard Industrial Classification (ASIC); ANZSIC has replaced the following editions of ASIC: the 1983 edition (used since the 1982-83 census), the 1978 edition (used since the 1977-78 census) and the 1969 edition (used since the 1968-69 census). <sup>b</sup> Includes working proprietors. <sup>c</sup> Excludes amounts drawn by working proprietors. <sup>d</sup> Data for 1973-74 to 1987-88 and 1989-90 cover ASIC subdivisions 11-15; data for 1988-89, 1990-91 and 1991-92 cover ASIC subdivisions 11-14; data for 1992-93 cover ANZSIC subdivisions 11-14 (equivalent to ASIC subdivisions 11-15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11-13 (equivalent to ASIC subdivisions 11-14). Data from 1996-97 based on ABS mining collection, equivalent to ANZSIC subdivisions 11-13.

Sources: ABS, *Manufacturing Industry, Australia*, cat. no. 8201.0, Canberra; ABS, *Manufacturing Establishments, Summary of Operations, Australia*, cat. no. 8202.0, Canberra; ABS, *Manufacturing Industry, Details of Operations, Australia*, cat. no. 8203.0, Canberra; ABS, *Mining Industry, Australia*, cat. no. 8401.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; ABS, *Mining Operations, Australia*, cat. nos. 8402.0 and 8415.0, Canberra.

## Resources sector

# 27 Value of Australian mineral production, exploration expenditure and royalties paid

	Gross value of minerals produced ab					Exploration expenditure de	Mineral royalties paid to governments be
	Metallics \$m	Coal and petroleum \$m	Construction materials c \$m	Non-metallics \$m	Total \$m		
1965	264	170	78	30	542	na	23
1966	328	181	83	32	624	na	28
1967	371	202	92	32	697	na	24
1968	468	250	97	37	852	na	22
1969	689	285	120	48	1 142	na	28
1970	815	439	137	59	1 450	na	43
1971	883	553	146	66	1 648	na	61
1972	931	689	162	85	1 867	na	67
1973	1 134	822	173	113	2 242	na	73
1974	1 429	959	207	115	2 710	na	99
1975	1 643	1 583	248	127	3 601	170	155
1976	1 858	2 223	276	179	4 536	156	177
1977	2 162	2 647	269	187	5 265	202	209
1978	2 088	3 001	313	216	5 618	262	223
1979	2 968	4 793	365	237	8 363	345	263
1980	3 540	6 226	448	273	10 487	581	371
1981	3 238	8 022	532	279	12 071	838	402
1982	3 820	8 635	605	288	13 348	1 380	433
1983	3 748	9 819	590	325 h	14 482	1 365	554
1984	4 389 f	11 717	706 g	327 h	17 457 i	1 249	586
1985	5 479 j	15 193	826 g	361 k	22 108 i	1 230	735
1986	5 963 j	11 961	894 g	596 l	19 720 i	1 208	942
1987	7 146 f	12 147 m	856 g	637 n	21 207 i	862	800
1988	8 310	10 221	973 g	777	20 281	1 295	821
1988-89	8 760 o	10 440 o	1 018 g	845 q	21 063 q	1 336	2 113
1989-90	11 110	12 700	1 399 g	924	26 133	1 190	2 156
1990-91	10 910 o	15 361 o	na	na	26 293	1 184	2 413
1991-92	10 957 o	15 010 o	na	na	25 985	1 078	2 167
1992-93	10 920 o	15 801 o	1 405 g	1 065	26 721	1 244	2 327
1993-94	10 861 o	14 841 o	na	na	25 702	1 299	2 033
1994-95	11 715 o	15 023 o	na	na	26 723	1 576	1 745
1995-96	12 793	15 986	na	na	28 779	1 685	1 867
1996-97	13 617	17 912	na	na	31 358	2 001	2 142
1997-98	14 696	19 517	na	na	34 213	2 048	2 298
1998-99	15 228	18 955	na	na	34 182	1 706	1 923
1999-00	14 234	20 065	na	na	34 299	1 399	2 448
2000-01	18 748	26 245	871	1 488	47 463	1 727	na

a Before 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90, data compiled by ABARE on a fiscal year basis; and from 1990-91, data compiled by ABS from annual Mining Census data. b From 1965 to 1989-90, data cover ASIC subdivisions 11-15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11-14; data for 1992-93 cover ANZSIC subdivisions 11-14 (equivalent to ASIC subdivisions 11-15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11-13 (equivalent to ASIC subdivisions 11-14). Data from 1996-97 based on ABS mining collection, equivalent to ANZSIC subdivisions 11-13. c Coverage is inconsistent between years. d Year ended 30 June. e Private expenditure: includes energy exploration. f Excludes bauxite for Western Australia. g Excludes Australian Capital Territory. h Excludes talc and limestone for Western Australia. i Includes confidential items not separately included in the listed categories. j Excludes bauxite for Western Australia and iron oxide, molybdenum and tin-copper concentrate for Tasmania. k Excludes limestone and salt for Queensland. l Excludes salt for Victoria and limestone and talc for Western Australia. m Excludes coal for Western Australia. n Excludes salt for Victoria and limestone, silica and talc for Western Australia. o Tasmanian coal production included in metallics. q Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. na Not available.

Sources: ABS, *Mining Operations, Australia*, cat. nos. 8402.0 and 8415.0, Canberra; ABS, *Mineral Exploration, Australia*, cat. no. 8407.0, Canberra; ABS, *Actual and Expected Private Mineral Exploration, Australia*, cat. no. 8412.0, Canberra; ABS, *Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.

## 28 Australian private mineral exploration expenditure, by type of mineral sought

	Energy minerals			Metallic minerals					
	Petroleum	Other <sup>a</sup>	Total	Gold	Base metals <sup>b</sup>	Other metallics	Total	Other	Total
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
1970-71	79	na	na	na	na	na	na	na	na
1971-72	104	na	na	na	na	na	na	na	na
1972-73	93	na	na	na	na	na	na	na	na
1973-74	90	na	na	na	na	na	na	na	na
1974-75	60	14	74	na	na	na	90	6	170
1975-76	56	15	71	na	na	na	78	7	156
1976-77	68	30	98	na	na	na	95	9	202
1977-78	103	48	151	na	na	na	101	10	262
1978-79	163	56	219	na	na	na	105	21	345
1979-80	295	85	380	30	92	41	163	38	581
1980-81	368	123	491	69	153	69	291	56	838
1981-82	804	165	969	95	167	79	341	70	1 380
1982-83	927	98	1 025	96	130	55	281	59	1 365
1983-84	824	60	884	152	138	40	330	35	1 249
1984-85	793	48	841	177	135	40	352	37	1 230
1985-86	766	82	848	215	79	32	326	34	1 208
1986-87	305	59	364	357	77	22	456	42	862
1987-88	495	48	543	581	84	40	705	47	1 295
1988-89	639	57	696	449	100	36	584	56	1 336
1989-90	583	52	635	341	118	39	498	57	1 190
1990-91	583	36	618	301	172	45	518	48	1 184
1991-92	474	40	514	305	145	66	515	48	1 078
1992-93	612	33	645	320	183	45	548	50	1 244
1993-94	507	35	542	454	192	43	688	69	1 299
1994-95	682	46	728	555	201	37	792	55	1 576
1995-96	725	60	785	547	252	40	839	61	1 685
1996-97	853	84	936	728	207	59	994	71	2 001
1997-98	981	87	1 068	648	227	55	930	50	2 048
1998-99	868	55	923	486	177	70	733	49	1 706
1999-00	723	47	770	375	157	64	596	33	1 399
2000-01	1 044	50	1 093	370	165	69	604	30	1 727
2001-02	884	59	943	331	133	87	551	30	1 524

<sup>a</sup> Coal and uranium. <sup>b</sup> Includes copper, lead, zinc, silver, nickel and cobalt. **na** Not available.

Sources: ABS, *Mineral Exploration, Australia*, cat. no. 8407.0, Canberra; ABS, *Actual and Expected Private Mineral Exploration, Australia*, cat. no. 8412.0, Canberra.

## Resources sector

### 29 Private new capital expenditure

	Mining <sup>a</sup>	Manufacturing	Other selected industries	All industries
	\$m	\$m	\$m	\$m
1963-64	68	na	na	1 113
1964-65	107	na	na	1 404
1965-66	217	na	na	1 713
1966-67	243	na	na	1 661
1967-68	325	na	na	1 813
1968-69	435	na	na	2 027
1969-70	533	na	na	2 360
1970-71	781	na	na	2 940
1971-72	874	na	na	3 120
1972-73	455	na	na	2 660
1973-74 <sup>b</sup>	541	na	na	3 776
1974-75	707	na	na	4 565
1975-76	654	na	na	5 316
1976-77	490	na	na	5 952
1977-78	804	na	na	7 091
1978-79	1 034	na	na	8 699
1979-80 <sup>c</sup>	1 117	na	na	8 298
1980-81	1 910	na	na	10 962
1981-82	2 868	na	na	13 999
1982-83	3 488	na	na	14 185
1983-84	2 386	na	na	13 021
1984-85	2 100	na	na	14 525
1985-86	2 799	na	na	18 070
1986-87	3 639	na	na	21 327
1987-88	3 986	7 088	15 493	26 567
1988-89	3 976	7 524	18 788	30 288
1989-90	4 055	8 439	18 756	31 250
1990-91	4 567	7 663	17 358	29 588
1991-92	4 217	7 325	13 592	25 134
1992-93	5 482	7 537	14 218	27 237
1993-94	5 586	8 350	16 053	29 989
1994-95	6 351	10 351	18 859	35 561
1995-96	7 525	10 457	22 489	40 471
1996-97	8 781	10 198	24 858	43 837
1997-98	11 029	10 996	24 185	46 210
1998-99	8 795	9 608	26 997	45 400
1999-00	5 468	10 140	28 783	44 391
2000-01	5 491	9 141	27 933	42 565
2001-02	7 250	9 179	27 896	44 325

<sup>a</sup> Includes expenditure on petroleum and gas. <sup>b</sup> Break in continuity as a result of change in scope and the introduction of the integrated capital expenditure survey. <sup>c</sup> Break in continuity as a result of the changed definition in accounting for finance leases. **na** Not available.

Sources: ABS, *Private New Capital Expenditure, Australia, Actual and Expected Expenditure, Preliminary*, cat. no. 5625.0, Canberra; ABS, *Private New Capital Expenditure, Australia*, cat. no. 5626.0, Canberra; ABARE.

# 30 Australian production of mineral commodities

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Bauxite	Mt	43	43	44	46	51	55	54
Coal								
Black								
Salable	Mt	195	207	222	225	239	258	273
Raw	Mt	243	261	279	284	299	321	345
Brown	Mt	53	60	64	66	66	65	65
Copper in mine products s	kt	438	547	576	691	796	876	876
Diamonds	'000 ct	42 565	37 120	43 046	35 948	29 672	22 475	30 676
Gold in mine products s	t	273	299	317	303	299	296	264
Iron ore and concentrate	Mt	148	153	161 s	153 s	160	176	185
Lead in mine products s	kt	506	516	571	663	648	724	744
Manganese ore and concentrate s	kt	2 168	2 297	1 647	1 630	1 755	1 948	1 779
Nickel in mine products s	kt	105	115	134	127	141	197	207
Petroleum								
Crude oil and condensate	ML	30 251	31 049	33 961	27 897	37 447	38 705	36 100
LPG (naturally occurring)	ML	4 113	4 253	4 901	4 368	4 832	4 558	4 647
Natural gas and ethane	GL	30	30	31	32	33	34	36
Salt s	kt	8 255	8 315	9 035	9 203	9 610	9 492	9 213
Silver in mine products s	t	981	1 010	1 333	1 593	1 889	2 021	2 106
Tin in mine products s	t	8 867	9 215	10 544	9 877	9 820	9 909	7 911
Titanium minerals								
Ilmenite	kt	2 071	2 100	2 392	2 156	2 134	2 092	1 843
Rutile	kt	199	197	247	214	185	209	207
Synthetic rutile s	kt	517	534	662	569	566	650	612
Titanium dioxide pigment s	kt	185	159	162	164	168	181	186
Uranium	t	5 088	5 975	5 788	6 387	8 217	9 549	7 964
Zinc in mine products s	kt	1 039	1 060	1 038	1 142	1 265	1 483	1 490
Zircon concentrate	kt	496	411	409	385	372	377	389

s ABARE estimate.

Sources: ABS; state mines departments and their equivalents; ABARE.



## Resources sector

### 31 Gross value of Australian mineral production, by commodity <sup>a</sup>

	1995-96 \$m	1996-97 \$m	1997-98 \$m	1998-99 \$m	1999-00 \$m	2000-01 \$m
Coal						
Black	7 444 <b>b</b>	8 647	9 609	11 611	10 228	11 621
Brown	465	442	385	328	na	520
Construction materials	na	na	na	na	na	871
Copper ore and concentrate	1 182 <b>c</b>	1 331	1 376	1 397	1 503	2 303
Diamonds	na	na	na	na	na	634
Gemstones						
Opals	na	na	na	na	na	98
Sapphires	na	na	na	na	na	12
Gold bullion	4 462 <b>b</b>	na	4 972	4 532	3 851	1 189
Gold ore and concentrate <b>d</b>	na	na	na	na	na	3 240
Iron ore and concentrate	2 999	3 570	3 922	4 307	3 605	4 938
Lead ore and concentrate	374	347	402	525	469	849
Manganese ore and concentrate <b>d</b>	na	na	na	na	na	210
Nickel ore and concentrate <b>d</b>	na	na	na	na	na	1 865
Petroleum						
Crude oil and condensate	8 077	8 823	9 523	8 118	11 295	12 127
LPG (naturally occurring)						
Natural gas and ethane						
Salt	na	na	na	na	na	264
Tin ore and concentrate <b>d</b>	na	na	na	na	na	176
Titanium minerals						
Ilmenite	na <b>d</b>	171 <b>e</b>	189 <b>e</b>	212 <b>e</b>	288 <b>e</b>	169 <b>e</b>
Rutile	na <b>d</b>	144	186	182	184	117
Uranium	202 <b>f</b>	na	225	266	325	423
Zinc ore and concentrate	461	779	695	739	934	1 768
Zircon concentrate	na <b>d</b>	256	218	179	284	202
<b>Total <sup>g</sup></b>	<b>28 779</b>	<b>31 358</b>	<b>34 213</b>	<b>34 182</b>	<b>34 299</b>	<b>47 463</b>

**a** Gross value is ex mine. For 1989-90 data are compiled by ABARE on a fiscal year basis; and from 1990-91 data are compiled by ABS from annual Mining Census data. Data in this table are not on the same basis as data shown in the previous table. **b** Excludes Tasmania. **c** Excludes South Australia. **d** ABS confidentiality provisions apply, data not available for publication. **e** Excludes value of ilmenite use for beneficiated ilmenite. **f** Excludes the Northern Territory. **g** Includes components shown as not available. Totals for 1993-94 and 1994-95 cover ANZSIC subdivisions 11-13 (equivalent to ASIC subdivisions 11-14). Data from 1996-97 are based on ABS mining collection (equivalent to ANZSIC subdivisions 11-13). **na** Not available.  
**Sources:** ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *Australian Mining Industry*, cat. no. 8414.0, Canberra; ABS, *Mining Operations Australia*, cat. no. 8415.0, Canberra; state mines departments and their equivalents; ABARE.

# 32 Gross value of Australian mineral production, by state <sup>a</sup>

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australia
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
1960	159	33	75	44	28	16	7	363
1961	156	43	64	45	32	16	7	363
1962	160	40	74	46	31	18	5	375
1963	185	41	84	45	34	20	6	416
1964	233	45	97	45	39	25	7	493
1965	267	50	98	48	39	29	11	542
1966	262	53	138	80	42	35	13	624
1967	274	57	135	134	40	35	19	697
1968	298	59	186	195	42	45	25	852
1969	351	64	258	290	80	67	31	1 142
1970	382	176	288	401	91	80	32	1 450
1971	382	282	301	476	88	80	38	1 648
1972	445	310	357	514	104	88	48	1 867
1973	475	413	470	602	122	85	72	2 242
1974	600	434	600	740	109	120	105	2 710
1975	839	618	832	976	116	113	103	3 601
1976	1 033	888	1 102	1 064	144	151	151	4 536
1977	1 193	1 055	1 226	1 309	147	178	152	5 265
1978	1 267	1 398	1 176	1 256	166	211	141	5 618
1979	1 578	2 888	1 646	1 593	209	249	196	8 363
1980	1 625	4 046	1 937	2 042	225	282	326	10 487
1981	2 237	4 903	1 894	2 119	254	284	378	12 071
1982	2 381	5 036	2 228	2 614	305	277	506	13 348
1983	2 375	5 792	2 368	2 575	542	277	551	14 482 <sup>b</sup>
1984	2 707	6 652	2 892	3 170 <sup>c</sup>	782	237	697	17 457 <sup>b</sup>
1985	2 959	8 514	4 020 <sup>d</sup>	4 310 <sup>c</sup>	1 165	269 <sup>e</sup>	620	22 108 <sup>b</sup>
1986	3 151	5 131	4 185	5 096 <sup>c</sup>	1 016	336	805	19 720 <sup>b</sup>
1987	3 249	5 471	4 277	5 834	991	300	1 085	21 207 <sup>b</sup>
1988	3 392	3 979	4 164	6 296	1 049	356	1 047	20 281
1988-89	3 705	3 715	4 689	6 259	1 131	382 <sup>f</sup>	1 182	21 063 <sup>g</sup>
1989-90	4 524	4 019 <sup>h</sup>	5 381	8 819	1 231	496	1 663	26 133 <sup>h</sup>
1990-91	3 751	na <sup>i</sup>	4 961	9 761	na <sup>i</sup>	355	1 866	26 293
1991-92	3 721	na <sup>i</sup>	4 981	9 994	na <sup>i</sup>	361	1 493	25 985
1992-93	3 817	na <sup>i</sup>	5 519	10 286	na <sup>i</sup>	310	1 350	26 721
1993-94	3 863	na <sup>i</sup>	5 134	10 231	na <sup>i</sup>	327	1 028	25 702
1994-95	3 867	na <sup>i</sup>	5 283	11 835	na <sup>i</sup>	327	1 074	26 723
1995-96	4 027	na <sup>i</sup>	5 922	12 847	1 117	na	na	28 779
1996-97	4 688	3 265	6 425	14 231	1 029	387	1 306	31 358
1997-98	5 019	3 379	7 318	15 672	1 124	356	1 345	34 213
1998-99	5 291	2 471	8 217	15 438	1 053	446	1 266	34 182
1999-00	4 979	3 532	7 984	14 758	1 206	550	1 290	34 299
2000-01	7 031	na	10 910	23 256	2 130	504	3 633	47 463

<sup>a</sup> Gross value is ex mine. Before 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90, data compiled by ABARE on a financial year basis; and from 1990-91, data compiled by ABS from annual Mining Census data. Data for 1954 to 1989-90 cover ASIC subdivisions 11-15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11-14; data for 1992-93 cover ANZSIC subdivisions 11-14 (equivalent to ASIC subdivisions 11-15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11-13 (equivalent to ASIC subdivisions 11-14). Data from 1996-97 based on ABS mining collection, (equivalent to ANZSIC subdivisions 11-13). <sup>b</sup> Includes items excluded from state totals for confidentiality reasons. <sup>c</sup> Excludes bauxite, limestone and talc. <sup>d</sup> Excludes limestone and salt. <sup>e</sup> Excludes iron oxide, molybdenum, and tin-copper concentrate. <sup>f</sup> Excludes clay, dolomite, limestone, peat and silica. <sup>g</sup> Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. <sup>h</sup> Excludes salt and silica for Victoria. <sup>i</sup> ABS confidentiality provisions apply; data not available for publication. <sup>na</sup> Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *Australian Mining Industry*, cat. no. 8414.0, Canberra; ABS, *Mining Operations Australia*, cat. no. 8415.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.

## Resources sector

### 33 Australian smelter and refinery production of mineral commodities

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Alumina	kt	12 940	13 326	13 252	13 581	14 207	15 037	16 098	16 417
Aluminium	kt	1 285	1 331	1 395	1 589	1 686	1 742	1 788	1 809
Blister copper <b>a</b>	kt	238	250	252	223	234	387	419	458
Copper	kt	282	294	310	283	306	477	517	563
Gold									
Australian origin	t	244	274	290	276	287	313	296	271
Overseas origin	t	43	36	35	18	20	12	16	20
Lead bullion <b>a</b>	kt	177	181	191	171	157	165	153	201
Lead <b>b</b>	kt	205	224	202	185	199	233	215	275
Nickel matte	kt	73	77	73	103	79	98	100	96
Nickel <b>c</b>	kt	71	73	73	79	77	101	121	131
Petroleum									
Automotive diesel oil	ML	11 365	12 200	12 968	13 183	12 968	12 737	13 212	13 064
Automotive gasoline	ML	17 911	18 358	18 084	18 589	18 705	18 652	17 887	18 000
Aviation turbine fuel	ML	4 410	4 882	5 284	5 423	5 218	5 539	5 836	5 390
Fuel oil	ML	2 431	1 998	1 796	1 662	1 634	1 839	1 951	1 684
Raw steel <b>d</b>	kt	8 428	8 471	8 467	9 143	8 549	8 053	8 003	8 311
Silver	t	349	350	339	227	410	543	532	616
Tin	t	455	550	570	650	595	602	1 039	829
Zinc	kt	312	330	319	304	323	405	534	572

**a** Metallic content. **b** Includes lead content of lead alloys from primary sources. **c** Includes nickel contained in metal and nickel oxide. **d** Includes recovery from scrap.

Sources: DITR; ABARE.

# 34 Prices of mineral commodities

	Alumina av. export unit value A\$/t	Aluminium (high grade) LME cash US\$/t	Gold London AM fix US\$/oz	Iron ore <sup>a</sup> av. export unit value A\$/t	Steaming coal av. export unit value A\$/t	Coking coal av. export unit value A\$/t	Crude oil world trade weighted average US\$/bbl	Uranium Nuexco exch. value <sup>b</sup> US\$/lb
1980-81	154.78	1 501.00	566.45	15.08	32.74	44.28	36.42	26.85
1981-82	176.79	1 087.00	384.32	16.91	43.31	51.32	33.94	22.50
1982-83	186.10	1 142.00	424.45	22.28	46.20	60.28	31.86	20.46
1983-84	180.47	1 482.00	391.75	19.44	42.33	55.88	28.65	20.67
1984-85	197.43	1 095.00	324.93	20.80	43.82	61.20	28.22	15.71
1985-86	186.11	1 074.00	333.37	23.46	47.58	65.04	22.27	16.71
1986-87	189.36	1 249.75	410.27	23.98	45.82	63.31	15.07	16.90
1987-88	238.85	2 241.50	455.37	20.04	39.11	52.45	16.26	16.22
1988-89	267.35	2 346.00	402.80	18.68	41.68	52.54	14.47	11.94
1989-90	329.04	1 638.25	382.79	22.19	48.93	60.69	16.56	9.39
1990-91	307.56	1 581.25	373.70	24.63	49.18	61.82	21.95	9.70
1991-92	241.73	1 232.00	351.93	26.74	48.48	61.55	17.76	8.02
1992-93	242.11	1 199.00	343.69	26.91	50.00	65.38	17.74	9.59
1993-94	224.36	1 204.50	378.93	24.28	47.84	61.97	14.45	9.68
1994-95	216.31	1 761.75	384.37	21.53	44.12	55.88	16.83	10.17
1995-96	247.36	1 662.78	389.89	22.70	49.29	61.30	17.44	13.69
1996-97	236.49	1 512.89	363.82	22.94	46.49	61.18	20.30	14.24
1997-98	274.06	1 510.08	306.07	26.66	48.25	68.30	15.03	11.18
1998-99	263.13	1 276.25	285.90	28.44	44.76	64.18	12.31	10.10
1999-00	297.80	1 515.25	281.60	25.29	39.43	53.54	24.05	9.40
2000-01	354.29	1 538.00	269.45	31.16	47.78	62.51	26.82	7.83
2001-02	314.25	1 359.76	287.87	33.05	57.51	75.95	21.59	9.58
	Copper (high grade) LME cash US\$/t	Lead (high grade) LME cash US\$/t	Zinc (high grade) LME cash US\$/t	Silver <sup>c</sup> London fix US\$/troy oz	Nickel LME cash US\$/t	Ilmenite <sup>d</sup> av. export unit value A\$/t	Rutile <sup>e</sup> av. export unit value A\$/t	Zircon <sup>f</sup> av. export unit value A\$/t
1980-81	866.00	363.00	853.00	1 497.67	6 462.25	26.00	305.00	77.00
1981-82	846.00	311.00	746.00	807.50	5 542.00	28.00	275.00	91.00
1982-83	1 049.00	280.00	767.00	1 047.58	4 421.50	28.00	255.00	117.00
1983-84	1 031.00	332.00	891.00	981.67	4 762.00	33.00	266.00	118.00
1984-85	1 379.00	337.00	864.00	673.92	5 040.25	31.28	352.66	122.58
1985-86	1 411.00	270.00	679.00	580.67	4 269.00	40.57	451.92	145.26
1986-87	1 393.00	322.00	810.00	604.42	3 843.75	53.33	553.82	194.60
1987-88	2 259.00	655.00	940.00	697.08	10 208.50	63.96	578.13	310.47
1988-89	2 845.00	642.00	1 582.00	609.92	14 730.50	70.27	616.99	535.68
1989-90	2 639.00	776.00	1 578.00	519.33	9 600.00	76.37	703.40	656.92
1990-91	2 641.00	682.00	1 308.00	428.00	9 081.00	82.38	775.61	515.75
1991-92	2 253.00	527.00	1 164.00	407.25	7 578.00	82.94	629.07	317.90
1992-93	2 193.80	487.00	1 114.00	387.08	6 252.43	79.72	545.46	193.28
1993-94	1 893.00	439.00	937.00	497.83	5 262.87	83.36	536.07	206.43
1994-95	2 765.59	613.00	1 045.00	516.20	7 447.13	86.16	568.94	295.34
1995-96	2 739.51	721.00	1 022.00	535.87	8 212.34	92.56	672.57	495.70
1996-97	2 264.68	707.00	1 124.00	490.54	7 223.57	99.42	733.81	601.80
1997-98	1 903.38	568.26	1 227.00	543.87	5 813.93	106.87	773.46	582.65
1998-99	1 514.50	513.47	998.18	516.15	4 506.75	116.97	789.31	513.74
1999-00	1 737.81	464.94	1 143.59	520.45	8 262.10	133.39	732.15	481.89
2000-01	1 786.51	476.14	1 049.66	466.71	7 239.79	152.06	849.08	607.62
2001-02	1 508.50	473.60	791.40	441.55	5 918.97	150.76	882.58	708.25

<sup>a</sup> Lump and fines. <sup>b</sup> Nuexco exchange value to 1997-98; Ux Consulting Industry spot price from 1998-99. <sup>c</sup> London fix rate from May 2001; Handy and Harman, commercial bar, minimum 99.9 per cent prior to May 2001. <sup>d</sup> All grades, bulk and bagged, before January 1992; bulk only thereafter. <sup>e</sup> All grades before August 1999; bagged only thereafter. <sup>f</sup> All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades to September 1999; bagged only thereafter.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; London Metal Exchange; London Bullion Market Association; US Energy Information Administration; ABARE.

## Resources sector

### 35 Exports and imports of Australian mineral resources <sup>a</sup>

	Coal, coke and briquettes	Other mineral fuels	Metalliferous ores and other minerals <sup>b</sup>	Gold	Other metals	Total	Imports <sup>c</sup>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
1970-71	206	41	789	20	374	1 430	208
1971-72	240	60	810	20	415	1 545	187
1972-73	294	46	931	25	513	1 809	223
1973-74	352	105	1 116	35	638	2 246	590
1974-75	733	162	1 595	46	884	3 420	661
1975-76	1 066	161	1 831	50	761	3 869	723
1976-77	1 292	206	2 243	34	1 038	4 813	922
1977-78	1 489	234	2 400	48	1 040	5 211	1 021
1978-79	1 531	316	2 616	80	1 385	5 928	1 305
1979-80	1 686	427	3 306	113	1 868	7 400	2 157
1980-81	1 981	517	3 409	56	1 517	7 480	2 372
1981-82	2 367	903	3 456	94	1 469	8 289	3 144
1982-83	3 049	1 099	3 852	290	1 768	10 058	2 121
1983-84	3 477	1 502	4 229	400	1 916	11 524	2 066
1984-85	4 591	2 294	4 974	601	2 492	14 952	2 029
1985-86	5 204	2 214	5 309	1 137	2 421	16 285	1 537
1986-87	5 361	1 564	5 494	2 047	2 933	17 399	1 910
1987-88	4 866	1 786	6 358	3 107	3 863	19 980	2 772
1988-89	4 805	1 258	7 187	3 021	4 669	20 940	3 665
1989-90	5 932	2 068	8 348	3 764	4 650	24 762	4 322
1990-91	6 480	3 595	8 932	4 136	4 737	27 880	4 968
1991-92	6 949	3 402	8 477	4 605	4 702	28 135	4 910
1992-93	7 620	3 913	8 312	4 580	5 210	29 635	6 237
1993-94	7 253	3 351	8 233	5 521	5 396	29 754	5 791
1994-95	6 936	3 794	8 448	4 907	6 097	30 182	6 140
1995-96	7 843	4 165	9 614	5 850	6 799	34 271	6 701
1996-97	8 005	5 154	9 803	6 878	6 054	35 894	7 359
1997-98	9 586	5 309	11 373	7 226	7 185	40 679	8 564
1998-99	9 288	4 461	11 635	6 413	6 984	38 781	8 966
1999-00	8 336	9 082	12 361	5 164	8 810	43 753	12 060
2000-01	10 844	13 464	15 839	5 229	10 146	55 522	14 245
2001-02	13 429	10 970	15 318	5 301	9 650	54 668	13 548

<sup>a</sup> Balance of payments basis. <sup>b</sup> Includes ABARE estimates for bauxite, manganese and other ABS confidential minerals from 1984-85 until 1989-90. From 1990-91, ABS data include actual details for these items. ABARE estimates for items not classified as mineral resources by ABS are included for all years since 1984-85. <sup>c</sup> Pre 1987-88 reported on a calendar year basis. (example, 1987-88 = 1988). Post 1987-88 reported on a fiscal year basis. Sources: ABS, *Balance of Payments, Australia*, cat. nos 5302.0 and 5303.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABARE.

## 36 Australian exports of mineral commodities

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Alumina	kt	10 315	10 984	11 011	10 536	11 059	11 654	12 721	13 091
Aluminium (ingot metal)	kt	920	1 042	1 060	1 233	1 365	1 364	1 471	1 490
Coal, black									
Coking	kt	73	77	79	84	85	97	106	106
Steaming	kt	63	61	67	79	84	79	88	92
Copper s	kt	245	282	389	441	529	582	694	749
Diamonds s	'000 ct	23 931	33 627	52 521	42 483	51 244	51 095	25 513	25 242
Gold, refined	t	284	334	312	428	421	330	302	280
Iron and steel									
Iron ore and pellets	kt	129	126	138	142	135	149	157	156
Iron and steel	kt	2 861	3 130	3 212	3 347	3 332	2 941	2 931	3 147
Ferroalloys	kt	148	156	161	145	153	48	40	45
Lead s	kt	467	477	483	559	620	727	672	731
Magnesia	t	67 603	84 836	75 426	124 361	122 777	174 854	161 236	151 760
Manganese ore and concentrate s	kt	1 577	1 683	1 797	1 147	1 125	1 301	1 522	1 589
Petroleum									
Crude oil and other refinery feedstock	ML	11 445	10 899	12 401	14 785	14 291	20 877	24 044	23 936
LNG s	Mt	7	7	7	8	8	8	8	8
LPG	ML	1 189	1 469	2 421	2 824	2 486	2 857	2 785	3 211
Refinery products	ML	3 289	4 101	5 041	4 941	4 236	4 116	4 564	3 409
Salt	kt	7 545	7 996	7 605	8 444	8 710	8 389	8 636	8 912
Silver, refined bullion	t	186	236	306	257	399	447	450	547
Tin s	t	7 902	9 008	9 395	10 550	10 002	9 934	9 660	8 026
Titanium minerals									
Ilmenite concentrate a	kt	1 014	1 192	1 147	1 304	1 216	1 133	1 012	914
Leucoxene	kt	17	17	36	24	18	41	70	60
Rutile concentrate	kt	212	203	186	207	188	179	190 s	190
Synthetic rutile s	kt	300	304	351	476	381	369	443	398
Titanium dioxide pigment	kt	122	127	130	136	133	135	140	145
Uranium oxide (U <sub>3</sub> O <sub>8</sub> )	t	4 069	5 286	5 701	6 415	5 989	8 025	9 722	7 367
Zinc s	kt	889	965	1 011	926	1 126	1 120	1 456	1 488
Zircon concentrate b	kt	524	450	382	396	364	374	375 s	388

a Bulk and bagged before January 1992; bulk only thereafter. b All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Resources sector

### 37 Value of Australian exports of mineral commodities

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Bauxite <sup>s</sup>	125	116	104	120	135	185	196	136
Alumina <sup>a</sup>	2 231	2 717	2 604	2 887	2 910	3 471	4 507	4 114
Aluminium (ingot metal)	2 173	2 379	2 088	2 828	2 840	3 302	4 229	3 965
Coal, black								
Coking	4 098	4 745	4 814	5 742	5 472	5 184	6 597	8 038
Steaming	2 775	3 014	3 118	3 790	3 767	3 114	4 204	5 294
Copper <sup>b</sup>	797	928	1 007	1 194	1 366	1 616	2 286	2 160
Diamonds <sup>cs</sup>	480	526	396	538	598	601	634	555
Gems, other than diamonds	137	136	115	93	79	83	99	82
Gold, refined	4 690	5 531	4 706	6 242	6 317	4 803	4 887	4 950
Iron and steel								
Iron ore and pellets	2 774	2 865	3 155	3 791	3 844	3 779	4 903	5 160
Iron and steel	1 379	1 510	1 385	1 608	1 316	1 268	1 543	1 381
Lead <sup>b</sup>	427	428	469	492	537	607	637	729
Magnesia	38	48	37	57	46	45	53	56
Manganese ore and concentrate <sup>s</sup>	202	212	231	157	165	185	261	290
Nickel <sup>s</sup>	978	1 157	1 072	1 103	845	1 862	2 039	1 776
Petroleum								
Crude oil and other refinery feedstock	1 726	1 675	2 119	2 251	1 881	5 292	8 137	6 390
LNG	1 201	1 372	1 537	1 599	1 425	1 949	2 671	2 613
LPG	154	189	356	367	297	648	830	721
Refinery products	719	933	1 147	1 097	866	1 202	1 844	1 234
Salt	175	179	168	211	222	221	253	267
Silver <sup>d</sup>	47	62	69	94	112	129	142	163
Tin <sup>b</sup>	50	61	57	75	73	70	76	49
Titanium minerals								
Ilmenite concentrate <sup>e</sup>	87	110	114	139	142	151	154	138
Leucoxene concentrate	7	11	19	15	9	16	21	23
Rutile concentrate	121	137	136	160	148	131 <sup>s</sup>	161	167
Synthetic rutile <sup>s</sup>	142	149	184	274	251	226	317	296
Titanium dioxide pigment	293	324	256	346	387	404	494	460
Uranium oxide (U <sub>3</sub> O <sub>8</sub> )	188	242	245	288	288	367	497	361
Zinc <sup>b</sup>	776	816	844	988	1 133	1 233	1 882	1 529
Zircon concentrate <sup>f</sup>	155	223	230	231	187	180 <sup>s</sup>	228	274
Other mineral resources	953	1 369	3 030	1 827	1 030	1 380	719	1 296
Total mineral resources <sup>g</sup>	30 182	34 271	35 894	40 679	38 781	43 753	55 522	54 668

<sup>a</sup> Includes aluminium hydroxide. <sup>b</sup> Value of all ores, concentrates, intermediate products (where applicable) and refined metal. <sup>c</sup> Unsorted and sorted. <sup>d</sup> Includes refined bullion, powder, unwrought silver and semimanufactured forms. <sup>e</sup> Bulk ilmenite from 1 January 1992. <sup>f</sup> All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. <sup>g</sup> Total mineral resources exports on an ABARE balance of payments basis. <sup>s</sup> ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 38 Australian exports of minerals, by destination <sup>a</sup>

	1987	1988	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Africa	33	47	90	57	96	112	117	113
Americas								
United States	1 672	873	977	993	1 016	647	661	568
Other	172	226	182	229	213	299	407	408
Asia								
Chinese Taipei	623	700	889	1 091	1 175	1 466	1 538	1 493
Hong Kong, China	755	1 425	1 240	679	758	1 037	1 191	1 200
Japan	6 046	6 148	6 801	7 884	9 171	9 202	9 439	9 306
Korea, Rep. of	926	1 111	1 238	1 519	1 897	2 063	2 545	2 952
Singapore	na	644	828	1 274	1 908	2 208	2 549	1 874
Other	1 548	1 103	1 390	1 462	1 849	2 517	3 185	3 272
Europe								
United Kingdom	977	720	815	838	825	714	783	1 243
Other European Union	1 777	1 238	1 379	1 612	1 799	1 872	1 748	631
Other Europe	231	276	383	723	904	423	389	334
Oceania								
New Zealand	142	228	319	276	274	349	443	489
Other	9	54	268	293	350	384	405	382
Other	1 361	2 995	3 442	4 626	4 700	3 875	3 529	3 677
Total	16 308	17 788	20 241	23 554	26 935	27 169	28 929	28 897
	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Africa	113	113	119	164	231	180	153	263
Americas								
United States	568	641	484	742	1 931	1 227	1 797	2 119
Other	408	364	388	404	544	582	564	675
Asia								
Chinese Taipei	1 493	1 617	1 897	1 953	2 566	2 599	2 956	4 060
Hong Kong, China	1 200	800	843	1 017	1 648	1 068	990	1 256
Japan	9 306	9 354	9 176	9 077	10 545	10 008	11 337	15 039
Korea, Rep. of	2 952	3 306	4 708	5 241	4 520	4 420	4 647	5 967
Singapore	1 874	2 161	1 814	1 595	1 918	1 693	3 259	4 060
Other	3 272	3 842	4 436	4 607	4 524	4 642	5 272	6 861
Europe								
France	263	262	260	265	294	380	309	443
Germany	335	370	398	406	478	416	383	427
Netherlands	354	368	178	156	279	347	463	795
United Kingdom	1 243	498	791	581	1 097	2 456	1 537	1 470
Other European Union	631	667	699	688	961	1 093	841	1 045
Other Europe	334	345	673	463	1 212	544	516	573
Oceania								
New Zealand	489	517	696	817	740	719	858	989
Other	382	398	494	548	511	407	550	860
Other	3 677	3 761	5 127	4 845	5 398	5 383	6 649	8 153
Total	28 897	29 385	33 180	33 571	39 397	38 164	43 079	55 054

<sup>a</sup> Not on a balance of payments basis; totals differ from earlier tables. Prior to 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; from 1988-89 data compiled by ABARE on a fiscal year basis. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABARE.



## Resources sector

### 39 Australian imports of mineral commodities

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Clays	kt	62	49	32	38	45	66	57
Diamonds <sup>a</sup>	'000 ct	2 749	3 322	2 777	2 827	2 528	2 598	2 431
Iron and steel								
Iron ore and pellets <sup>b</sup>	kt	3 926	4 782	5 351	4 429	4 460	4 658	3 880
Iron and steel	kt	731	841	1 134	1 127	1 128	896	1 354
Ferroalloys	kt	57	80	79	57	47	46	46
Limestone	kt	991	1 027	636	1 066	705	665	595
Magnesium	kt	8	5	3	6	7	6	6
Petroleum								
Crude oil and other								
refinery feedstock	ML	23 703	24 768	25 017	29 729	26 936	26 343	27 308
LPG	ML	415	588	511	496	519	633	588
Automotive gasoline	ML	421	1 074	483	890	1 065	1 189	1 436
Diesel fuel <sup>c</sup>	ML	997	846	918	1 561	2 574	1 363	823
Other refinery products <sup>s</sup>	ML	1 535	1 677	1 128	581	648	902	na
Phosphate rock	kt	911	906	452	884	756	823	933
Platinum and platinum								
group metals	kg	3 422	3 471	3 536	8 329	3 199	2 158	1 652
Potassium fertiliser	kt	366	329	435	357	353	346	417
Sulphur	kt	145	146	131	325	263	482	544

<sup>a</sup> Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. <sup>b</sup> Includes limonite ore used for the production of refined nickel products. <sup>c</sup> Includes automotive diesel oil and industrial marine diesel fuel. <sup>s</sup> ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 40 Value of Australian imports of mineral commodities

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Clays	15	14	10	17	17	25	23
Diamonds <b>a</b>	123	148	170	162	210	249	255
Gold <b>b</b>	703	589	1 991	2 351	2 390	1 686	2 207
Iron and steel							
Iron ore and pellets <b>c</b>	79	91	127	85	107	122	104
Iron and steel	860	807	1 061	940	1 034	923	1 099
Ferroalloys	72	69	74	69	54	58	60
Limestone	15	13	8	16	11	11	10
Magnesium	32	21	13	25	21	15	14
Petroleum							
Crude oil and other refinery feedstock	3 562	4 233	3 707	3 794	6 313	8 753	7 458
LPG	55	87	68	64	108	160	116
Automotive gasoline	85	225	93	134	321	432	448
Diesel fuel <b>d</b>	219	208	149	225	377	438	414
Other refinery products <b>s</b>	401	434	393	312	325	463	953
Phosphate rock	52	50	30	64	54	62	72
Platinum and platinum group metals	25	30	61	148	55	30	42
Potassium fertiliser	66	58	89	86	82	91	117
Silver	15	7	36	46	29	16	32
Sulphur	12	8	4	18	21	37	30

**a** Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Refined and unrefined bullion. **c** Includes value of limonite ore used for the production of refined nickel products. **d** Includes automotive diesel oil and industrial and marine diesel fuel. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## RURAL COMMODITIES



## Coarse grains

### 41 Summary of Australian statistics for coarse grains <sup>a</sup>

	Area '000 ha	Yield t/ha	Production		Exports <sup>b</sup>	
			Volume kt	Value \$m	Volume kt	Value \$m
1960-61	2 795	1.16	3 244	130	1 114	42
1961-62	2 450	0.97	2 382	105	1 092	46
1962-63	2 396	1.09	2 615	114	599	26
1963-64	2 423	1.08	2 608	117	706	31
1964-65	2 476	1.11	2 760	125	735	34
1965-66	2 710	0.87	2 371	120	478	24
1966-67	3 019	1.28	3 850	180	872	41
1967-68	2 693	0.75	2 023	98	330	16
1968-69	3 185	1.19	3 799	152	853	34
1969-70	3 334	1.10	3 684	134	904	33
1970-71	4 191	1.31	5 474	233	2 196	98
1971-72	4 492	1.29	5 782	223	3 138	135
1972-73	3 891	0.93	3 620	190	1 654	79
1973-74	3 664	1.27	4 671	347	1 739	136
1974-75	3 285	1.35	4 424	404	2 883	280
1975-76	3 868	1.44	5 575	500	3 137	306
1976-77	3 901	1.29	5 019	464	3 294	332
1977-78	4 318	0.98	4 218	347	1 928	177
1978-79	4 663	1.51	7 063	555	2 833	245
1979-80	4 199	1.48	6 215	669	4 459	511
1980-81	4 284	1.22	5 209	702	2 735	427
1981-82	4 847	1.38	6 687	799	3 445	517
1982-83	4 527	0.88	3 966	562	1 790	292
1983-84	5 794	1.64	9 497	1 240	4 529	735
1984-85	5 523	1.59	8 769	1 156	6 326	956
1985-86	5 306	1.53	8 113	974	5 757	813
1986-87	4 436	1.58	6 989	814	3 646	469
1987-88	4 576	1.57	7 162	911	2 494	375
1988-89	4 292	1.57	6 734	1 041	2 453	444
1989-90	3 919	1.79	7 005	1 087	3 306	662
1990-91	4 127	1.64	6 766	797	3 294	571
1991-92	4 624	1.75	8 109	1 076	2 716	485
1992-93	4 690	1.78	8 361	1 165	3 303	606
1993-94	5 092	1.94	9 865	1 274	2 298	440
1994-95	4 257	1.30	5 534	1 123	2 636	449
1995-96	5 296	1.90	10 083	2 093	4 095	1 023
1996-97	5 376	2.02	10 846	1 978	4 792	1 096
1997-98	5 388	1.87	10 101	1 601	3 388	806
1998-99	5 115	2.10	10 722	1 419	5 236	960
1999-00	4 245	2.22	9 436	1 401	4 531	931
2000-01	5 325	2.05	10 913	1 952	4 931	1 245
2001-02	5 714	2.28	13 044	2 362	5 480	1 396

<sup>a</sup> Barley, oats, sorghum and maize. Includes triticale from 1979-80. <sup>b</sup> Exports are on a July-June basis, including grains and the grain equivalent of malt exported.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Crops and Pastures, Australia*, cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; ABARE.

## Coarse grains

### 42 Australian coarse grains area, yield and production, by state <sup>a</sup>

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia <sup>b</sup>
<b>Barley</b>								
<b>Area</b>								
1995-96	'000 ha	593	628	168	745	964	14	3 112
1996-97	'000 ha	668	585	180	909	1 009	15	3 367
1997-98	'000 ha	701	618	135	1 017	1 036	13	3 521
1998-99	'000 ha	638	568	163	811	975	11	3 167
1999-00	'000 ha	476	585	130	550	845	9	2 596
2000-01	'000 ha	615	693	112	983	1 041	10	3 454
2001-02	'000 ha	659	707	96	1 074	1 181	7	3 724
<b>Yield</b>								
1995-96	t/ha	1.81	2.14	1.16	1.78	1.92	2.74	1.87
1996-97	t/ha	2.22	2.03	2.38	1.80	1.91	2.33	1.99
1997-98	t/ha	1.95	1.50	1.52	1.99	1.86	2.38	1.84
1998-99	t/ha	1.95	1.53	1.96	1.81	2.10	2.73	1.89
1999-00	t/ha	2.18	2.03	1.95	2.03	1.67	2.44	1.94
2000-01	t/ha	2.04	2.41	1.03	1.38	2.23	2.60	1.95
2001-02	t/ha	2.11	2.39	1.92	2.09	2.45	3.57	2.26
<b>Production</b>								
1995-96	kt	1 074	1 342	195	1 323	1 851	38	5 823
1996-97	kt	1 483	1 189	429	1 635	1 923	35	6 696
1997-98	kt	1 365	928	205	2 027	1 926	31	6 482
1998-99	kt	1 247	870	320	1 469	2 051	30	5 987
1999-00	kt	1 040	1 189	254	1 117	1 409	22	5 032
2000-01	kt	1 253	1 670	115	1 358	2 320	26	6 743
2001-02	kt	1 389	1 692	184	2 243	2 891	25	8 423
<b>Oats</b>								
<b>Area</b>								
1995-96	'000 ha	505	187	14	300	120	10	1 136
1996-97	'000 ha	393	175	39	316	121	8	1 052
1997-98	'000 ha	325	172	16	305	111	8	937
1998-99	'000 ha	354	188	18	228	112	8	909
1999-00	'000 ha	160	138	10	199	70	6	584
2000-01	'000 ha	168	140	13	248	75	7	650
2001-02	'000 ha	236	144	10	292	86	6	773
<b>Yield</b>								
1995-96	t/ha	1.41	2.09	0.49	1.95	1.35	1.83	1.65
1996-97	t/ha	1.54	1.74	0.67	1.73	1.29	1.75	1.57
1997-98	t/ha	1.50	2.15	0.81	1.95	1.38	1.88	1.74
1998-99	t/ha	1.89	2.44	0.83	2.03	1.59	1.75	1.98
1999-00	t/ha	1.78	2.14	1.20	2.21	1.11	1.67	1.91
2000-01	t/ha	1.46	2.51	0.46	1.28	1.56	1.86	1.62
2001-02	t/ha	1.40	2.44	0.60	1.94	1.99	2.00	1.86
<b>Production</b>								
1995-96	kt	711	392	7	585	162	18	1 875
1996-97	kt	607	304	26	546	156	14	1 653
1997-98	kt	488	369	13	596	153	15	1 634
1998-99	kt	669	458	15	463	178	14	1 798
1999-00	kt	284	296	12	439	78	10	1 118
2000-01	kt	246	351	6	317	117	13	1 050
2001-02	kt	331	352	6	567	171	12	1 439

*Continued*

## Coarse grains

### 42 Australian coarse grains area, yield and production, by state <sup>a</sup> (continued)

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia <sup>b</sup>
<b>Sorghum</b>								
<b>Area</b>								
1995-96	'000 ha	171	2	597	0	0	0	769
1996-97	'000 ha	117	1	424	1	0	0	544
1997-98	'000 ha	123	3	379	1	0	0	507
1998-99	'000 ha	216	1	367	2	0	1	587
1999-00	'000 ha	200	1	419	2	0	0	622
2000-01	'000 ha	258	2	494	2	0	0	758
2001-02	'000 ha	263	na	589	0	0	0	852
<b>Yield</b>								
1995-96	t/ha	2.76	2.64	1.87	0.00	0.00	0.00	2.07
1996-97	t/ha	3.56	3.00	2.36	2.00	0.00	0.00	2.62
1997-98	t/ha	3.10	1.88	1.82	2.00	0.00	0.00	2.13
1998-99	t/ha	3.81	2.00	2.89	3.00	0.00	0.00	3.22
1999-00	t/ha	4.02	3.00	3.12	0.75	0.00	0.00	3.40
2000-01	t/ha	2.98	2.00	2.34	2.00	0.00	0.00	2.55
2001-02	t/ha	2.98	na	2.26	0.00	0.00	0.00	2.50
<b>Production</b>								
1995-96	kt	472	4	1 116	0	0	0	1 591
1996-97	kt	417	3	1 003	2	0	0	1 425
1997-98	kt	382	6	691	2	0	0	1 081
1998-99	kt	822	2	1 059	6	0	0	1 891
1999-00	kt	804	2	1 308	2	0	0	2 116
2000-01	kt	770	4	1 156	4	0	0	1 935
2001-02	kt	785	6	1 331	0	0	0	2 129
<b>Maize</b>								
<b>Area</b>								
1995-96	'000 ha	24	1	31	1	0	0	58
1996-97	'000 ha	31	1	34	1	0	0	67
1997-98	'000 ha	22	1	34	1	0	0	57
1998-99	'000 ha	27	1	37	1	0	0	66
1999-00	'000 ha	22	1	59	1	0	0	82
2000-01	'000 ha	26	1	47	0	0	0	74
2001-02	'000 ha	40	1	50	2	0	0	93
<b>Yield</b>								
1995-96	t/ha	8.06	5.96	3.67	0.96	0.00	0.00	5.64
1996-97	t/ha	8.26	7.00	3.82	5.00	0.00	0.00	5.94
1997-98	t/ha	7.32	10.00	2.85	3.00	0.00	0.00	4.75
1998-99	t/ha	6.89	3.00	3.92	4.00	0.00	0.00	5.12
1999-00	t/ha	8.07	7.00	3.82	3.00	0.00	0.00	4.95
2000-01	t/ha	6.85	8.00	3.38	0.00	0.00	0.00	4.66
2001-02	t/ha	8.25	7.00	3.50	4.50	0.00	0.00	5.60
<b>Production</b>								
1995-96	kt	190	7	114	1	0	0	325
1996-97	kt	256	7	130	5	0	0	398
1997-98	kt	161	10	97	3	0	0	271
1998-99	kt	186	3	145	4	0	0	338
1999-00	kt	178	4	224	2	0	0	406
2000-01	kt	178	8	159	0	0	0	345
2001-02	kt	330	7	175	9	0	0	521

Continued

## Coarse grains

### 42 Australian coarse grains area, yield and production, by state <sup>a</sup> (continued)

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia <sup>b</sup>
<b>Triticale</b>								
<b>Area</b>								
1995-96	'000 ha	75	55	6	17	66	2	221
1996-97	'000 ha	118	93	2	26	105	2	346
1997-98	'000 ha	132	108	1	27	97	2	366
1998-99	'000 ha	143	111	1	29	99	2	386
1999-00	'000 ha	129	114	3	25	88	2	361
2000-01	'000 ha	126	127	1	28	105	2	389
2001-02	'000 ha	110	60	6	14	80	2	272
<b>Yield</b>								
1995-96	t/ha	2.77	2.20	1.45	1.20	1.56	3.53	2.12
1996-97	t/ha	2.69	1.80	3.00	1.35	1.34	3.50	1.95
1997-98	t/ha	2.02	1.69	1.00	1.30	1.44	3.50	1.73
1998-99	t/ha	1.87	1.65	1.00	1.21	1.41	3.50	1.83
1999-00	t/ha	2.51	1.58	1.33	1.72	1.67	5.11	2.12
2000-01	t/ha	2.57	1.42	4.00	1.54	1.40	5.00	2.16
2001-02	t/ha	3.39	3.92	0.83	2.50	1.36	2.93	1.96
<b>Production</b>								
1995-96	kt	209	120	8	20	104	7	469
1996-97	kt	317	167	6	35	141	7	674
1997-98	kt	267	183	1	35	140	7	633
1998-99	kt	267	183	1	35	140	7	708
1999-00	kt	324	180	4	43	147	10	764
2000-01	kt	324	180	4	43	147	10	840
2001-02	kt	373	235	5	35	109	6	532
<b>Total coarse grains</b>								
<b>Area</b>								
1995-96	'000 ha	1 368	872	816	1 063	1 150	26	5 296
1996-97	'000 ha	1 327	855	679	1 253	1 235	25	5 376
1997-98	'000 ha	1 303	902	565	1 351	1 244	23	5 388
1998-99	'000 ha	1 378	869	586	1 071	1 186	22	5 115
1999-00	'000 ha	987	838	621	777	1 003	17	4 245
2000-01	'000 ha	1 193	963	667	1 261	1 221	19	5 325
2001-02	'000 ha	1 308	912	751	1 382	1 347	15	5 714
<b>Yield</b>								
1995-96	t/ha	1.94	2.14	1.77	1.81	1.84	2.45	1.90
1996-97	t/ha	2.32	1.95	2.35	1.77	1.80	2.24	2.02
1997-98	t/ha	2.04	1.66	1.78	1.97	1.78	2.30	1.87
1998-99	t/ha	2.32	1.74	2.63	1.85	2.00	2.32	2.10
1999-00	t/ha	2.66	1.99	2.90	2.06	1.63	2.48	2.22
2000-01	t/ha	2.32	2.30	2.16	1.37	2.12	2.58	2.05
2001-02	t/ha	2.45	2.51	2.26	2.07	2.35	2.86	2.28
<b>Production</b>								
1995-96	kt	2 655	1 865	1 440	1 929	2 117	64	10 083
1996-97	kt	3 080	1 670	1 594	2 223	2 220	56	10 846
1997-98	kt	2 663	1 496	1 007	2 663	2 219	53	10 101
1998-99	kt	3 191	1 516	1 540	1 977	2 369	51	10 722
1999-00	kt	2 630	1 670	1 802	1 602	1 634	42	9 436
2000-01	kt	2 771	2 213	1 440	1 722	2 584	49	10 913
2001-02	kt	3 208	2 292	1 701	2 854	3 171	43	13 044

<sup>a</sup> Crops sown for grain. Crop years are November–October for barley, oats and triticale, and March–February for sorghum and maize. <sup>b</sup> State and Australian totals may not be equal as a result of rounding and the inclusion of data for the Australian Capital Territory. <sup>na</sup> Not available.

Sources: ABARE, *Australian Crop Report*, Canberra; ABS, *Selected Agricultural Commodities, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra.

## 43 Australian exports of sorghum and oats, by destination

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Sorghum</b>								
Asia								
Chinese Taipei	7	67	14	10	na a	na a	5	8
Japan	96	314	239	203	na a	na a	305	491
Other	8	29	46	37	na a	na a	381	87
Total	111	411	299	251	265	539	691	586
(value, \$m)	19	97	70	50	46	81	122	109
<b>Oats</b>								
Asia								
Japan	7	7	8	9	11	11	19	9
Korea, Rep. of	0	0	0	1	2	4	3	1
Philippines	1	1	4	5	5	5	5	5
Middle East								
Morocco	0	2	0	0	0	0	0	0
United Arab Emirates	0	2	1	1	1	3	2	2
Other a	88	220	110	138	237	138	69	114
Total	96	233	124	155	257	160	97	130
(value, \$m)	18	50	26	30	38	27	22	37

a No country detail provided due to confidentiality. na Not available.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



## Coarse grains

### 44 Australian coarse grains supply and disposal, by grain <sup>a</sup>

	Area '000 ha	Production kt	Exports b kt	Estimated domestic disposals	
				Feed and food kt	Seed c kt
Barley d					
1996-97	3 367	6 696	4 331 (447)	2 054	158
1997-98	3 521	6 482	3 463 (457)	1 948	143
1998-99	3 167	5 987	4 765 (525)	2 041	117
1999-00	2 596	5 032	3 325 (569)	1 854	157
2000-01	3 454	6 743	4 567 (602)	2 158	168
2001-02	3 724	8 423	5 013 (644)	2 361	139
Oats					
1996-97	1 052	1 653	150	1 458	45
1997-98	937	1 634	154	1 437	44
1998-99	909	1 798	248	1 522	28
1999-00	584	1 118	135	951	31
2000-01	650	1 050	86	927	37
2001-02	773	1 439	190	1 213	34
Sorghum					
1996-97	544	1 425	231	1 192	3
1997-98	507	1 081	184	894	3
1998-99	587	1 891	493	1 396	3
1999-00	622	2 116	665	1 448	4
2000-01	758	1 935	501	1 429	4
2001-02	852	2 129	420	1 715	2
Maize					
1996-97	67	398	8	389	1
1997-98	57	271	19	251	1
1998-99	66	338	36	300	1
1999-00	82	406	53	352	1
2000-01	74	345	45	299	1
2001-02	93	521	54	466	1
Triticale					
1996-97	346	674	1	656	18
1997-98	366	633	2	614	19
1998-99	386	708	0	690	18
1999-00	361	764	0	744	14
2000-01	389	840	0	826	14
2001-02	272	532	0	519	13
Total					
1996-97	5 376	10 846	4 721	5 749	225
1997-98	5 388	10 101	3 822	5 143	209
1998-99	5 115	10 722	5 542	5 949	167
1999-00	4 245	9 436	4 177	5 350	207
2000-01	5 325	10 913	5 199	5 639	224
2001-02	5 714	13 044	5 668	6 275	190

<sup>a</sup> Crop years are November–October for barley, oats and triticale, and April–March for sorghum and maize. <sup>b</sup> Figures in parentheses are exports of malt in barley equivalents. Exports may include carryover from earlier harvests. <sup>c</sup> Estimated using the following seeding rates for grain crops: sorghum 5 kg/ha; barley 45 kg/ha; maize 15 kg/ha; oats 48 kg/ha; triticale 50 kg/ha. <sup>d</sup> Malt use is expressed as barley equivalent = malt x 1.2. Approximately 1000 tonnes of pearled cooking barley is also included annually.

Sources: ABARE, *Australian Crop Report*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; ABARE.

# 45 Australian feedgrains prices

	Barley a \$/t	Oats b \$/t	Sorghum c \$/t	Maize c \$/t	Feed wheat c \$/t	Triticale c \$/t
1976-77	81.82	75.62	83.62	95.58	105.40	na
1977-78	75.10	67.93	84.80	87.77	111.60	na
1978-79	76.66	64.73	85.86	102.60	116.61	na
1979-80	97.06	78.48	103.28	na	140.50	na
1980-81	139.41	141.44	135.33	na	151.37	na
1981-82	111.19	105.60	112.95	129.90	149.78	na
1982-83	158.14	na	na	na	184.11	na
1983-84	122.86	96.07	127.82	160.63	175.24	na
1984-85	110.20	104.99	131.69	147.48	204.36	123.32
1985-86	109.47	100.68	126.71	143.76	193.82	121.17
1986-87	106.38	100.83	111.42	135.60	170.12	111.23
1987-88	117.93	109.09	129.02	154.84	189.54	132.25
1988-89	142.35	124.35	152.19	175.95	221.84	147.43
1989-90	151.67	116.15	152.77	176.25	171.00	155.60
1990-91	123.58	107.79	136.79	167.53	135.83	125.17
1991-92	147.28	141.02	172.75	189.15	159.67	150.56
1992-93	130.65	105.43	148.91	181.98	143.50	132.82
1993-94	127.30	105.27	168.60	229.58	137.58	135.59
1994-95	227.00	237.96	215.74	276.08	232.75	229.58
1995-96	226.80	171.69	223.69	244.02	234.72	220.22
1996-97	180.73	143.10	174.79	207.61	188.38	178.47
1997-98	179.48	171.49	182.37	215.50	185.93	184.23
1998-99	133.48	110.44	141.63	173.38	155.38	130.84
1999-00	141.03	103.23	130.58	161.14	153.63	138.95
2000-01	173.80	136.96	162.60	186.58	171.83	176.29
2001-02	202.95	191.46	187.52	224.90	211.87	211.96
<b>2001</b>						
January	172.50	142.75	171.50	195.00	180.00	174.25
February	180.25	145.25	164.75	185.00	170.75	178.00
March	182.75	145.25	168.75	181.25	164.25	175.00
April	186.00	146.75	172.00	182.50	172.75	184.25
May	185.80	155.60	172.80	188.00	179.00	191.60
June	191.25	180.75	181.25	202.00	187.00	207.25
July	199.75	185.00	189.50	208.50	202.75	210.00
August	202.80	178.60	188.40	206.40	206.00	207.20
September	198.25	173.25	179.00	199.25	192.25	197.75
October	195.60	163.00	176.40	204.80	200.60	195.00
November	188.50	168.75	182.75	220.00	204.50	197.50
December	195.00	178.33	186.33	235.00	203.33	209.67
<b>2002</b>						
January	209.50	202.50	192.50	241.25	222.50	227.50
February	217.25	205.50	184.50	237.75	225.75	223.50
March	212.25	206.00	184.75	229.50	221.75	221.75
April	203.67	206.33	195.75	233.75	220.00	219.00
May	198.80	210.20	192.60	238.40	221.00	215.60
June	214.00	220.00	197.75	244.25	222.00	219.00
July	227.80	235.00	221.40	266.80	231.50	232.60
August	257.50	275.00	263.25	291.25	280.00	261.00

a Average quote for bulk feed barley, delivered Sydney region. b Average quote for bulk feed oats, delivered Sydney region. c Average bulk quote, delivered Sydney region. na Not available.

Sources: Based on data supplied by New South Wales Department of Agriculture and various grains traders.

## Coarse grains

### 46 Summary of world statistics for coarse grains

	Area million ha	Production Mt	Use Mt	Closing stocks a		Stocks to use ratio %	Trade b Mt	Use per person kg	Price c US\$/t
				World Mt	United States Mt				
1960-61	316	439.4	432.4	109.8	79	25	26	143	na
1961-62	316	432.3	438.6	103.6	67	24	34	142	46.0
1962-63	315	448.6	450.8	101.4	59	22	33	143	51.0
1963-64	320	455.2	450.5	106.1	64	24	36	140	55.0
1964-65	315	460.6	468.6	98.1	51	21	38	143	56.0
1965-66	313	472.5	490.3	80.3	40	16	47	147	55.0
1966-67	315	508.9	505.9	83.3	36	16	44	148	60.0
1967-68	319	533.5	522.4	94.4	46	18	44	150	50.0
1968-69	318	533.9	530.5	97.8	47	18	41	149	49.0
1969-70	323	558.1	558.1	97.8	46	18	48	154	54.0
1970-71	323	559.2	573.5	83.5	32	15	54	155	63.0
1971-72	324	617.4	601.4	99.6	47	17	58	159	52.0
1972-73	318	594.2	612.6	81.2	32	13	69	159	72.0
1973-74	335	659.4	660.8	79.8	22	12	82	168	114.0
1974-75	333	622.7	612.9	89.6	21	15	70	153	132.0
1975-76	339	641.0	637.3	93.3	24	15	87	156	116.0
1976-77	342	692.0	671.6	113.8	37	17	88	162	108.0
1977-78	344	691.1	680.8	124.0	50	18	95	161	95.0
1978-79	341	744.2	724.8	143.3	58	20	99	169	103.0
1979-80	341	735.3	726.2	152.5	64	21	107	166	115.0
1980-81	341	723.6	734.6	142.6	44	19	119	166	142.0
1981-82	349	759.2	733.3	168.4	78	23	110	162	118.0
1982-83	339	775.6	741.8	202.2	109	27	96	161	115.0
1983-84	334	678.2	747.2	133.2	40	18	104	160	146.0
1984-85	335	806.3	767.6	171.9	58	22	112	161	124.0
1985-86	341	833.8	762.5	243.2	127	32	95	157	106.0
1986-87	338	824.7	789.7	278.2	153	35	97	160	77.0
1987-88	325	787.2	800.3	262.9	134	33	103	159	86.0
1988-89	325	722.9	782.4	203.4	66	26	112	153	118.0
1989-90	323	793.8	815.0	182.2	46	22	117	157	110.7
1990-91	317	829.1	816.3	195.0	48	24	102	154	106.5
1991-92	323	810.7	811.5	194.2	34	24	107	150	110.4
1992-93	326	871.6	847.2	218.7	63	26	107	154	97.9
1993-94	319	798.9	838.6	179.0	27	21	100	150	114.8
1994-95	324	871.3	859.7	190.6	45	22	93	151	105.3
1995-96	314	803.0	841.9	151.7	14	18	94	146	160.1
1996-97	323	908.5	875.1	185.2	27	21	94	151	132.4
1997-98	311	883.8	873.2	195.7	38	22	86	148	112.4
1998-99	307	888.9	869.4	215.2	51	25	94	147	94.5
1999-00	300	876.1	881.7	209.6	49	24	107	147	89.9
2000-01	295	858.1	881.5	186.2	53	21	106	144	86.6
2001-02	300	883.4	902.7	170.8	46	19	101	145	90.1

a Stocks data are based on national carryover levels at the end of national crop years. Aggregate stocks data therefore should not be construed as representing stock levels at fixed points in time. b September–August basis; includes intra-EU trade. c Export price US no. 2 yellow corn fob Gulf. na Not available.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; ABARE.

## 47 World coarse grains production, by region and country

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Africa</b>								
Egypt	6.6	6.3	6.8	6.9	6.5	6.6	6.6	7.1
Nigeria	17.7	18.5	16.9	16.8	17.5	17.7	16.7	17.9
South Africa	5.5	11.0	10.8	8.3	8.1	11.1	7.8	9.5
<b>Americas</b>								
Argentina	13.8	13.9	18.9	24.7	17.8	21.7	19.6	18.4
Brazil	38.2	33.2	36.6	31.3	33.5	32.6	42.7	36.7
Canada	23.4	24.1	28.2	25.1	26.6	26.8	24.3	22.9
Mexico	20.4	23.9	26.5	23.1	24.7	26.2	24.5	27.0
United States	283.5	210.0	265.7	260.4	271.5	263.2	273.1	261.9
<b>Asia</b>								
China	114.3	124.5	141.3	114.7	143.5	137.2	114.0	122.4
India	29.8	29.8	34.3	31.0	31.7	30.5	31.6	30.9
Turkey	8.9	9.4	9.9	10.0	10.5	9.2	10.1	9.5
Thailand	4.0	3.9	4.1	3.9	4.5	4.1	4.9	4.6
<b>Europe</b>								
European Union <sup>a</sup>	86.6	88.5	103.8	109.4	105.5	102.1	107.2	105.7
Denmark <sup>b</sup>	4.0	4.5	4.5	4.6	4.4	4.2	5.1	4.9
France <sup>b</sup>	22.2	22.0	26.0	29.2	28.3	27.4	28.0	28.4
Germany <sup>b</sup>	19.8	22.1	23.2	25.7	24.4	24.8	23.7	27.1
Italy <sup>b</sup>	9.4	10.4	11.5	11.8	10.5	12.0	12.1	12.1
Spain <sup>b</sup>	10.6	8.1	14.4	13.9	16.2	12.0	14.8	11.8
Sweden <sup>b</sup>	3.0	3.2	4.0	4.0	3.4	3.7	3.7	3.5
United Kingdom <sup>b</sup>	6.5	7.5	8.4	8.4	7.2	7.2	7.3	7.4
Former Yugoslavia	5.2	6.3	5.8	6.5	5.7	6.6	3.3	3.0
Hungary	6.2	6.3	7.1	8.4	7.6	8.3	6.1	9.2
Poland	14.1	17.2	16.7	17.2	17.6	16.7	13.8	17.7
Romania	10.6	12.1	11.1	15.0	9.6	11.9	5.8	8.5
Russian Federation	45.1	30.7	31.8	41.6	19.0	21.8	28.2	35.2
Ukraine	18.5	15.6	9.5	15.5	10.3	10.6	13.0	17.0
<b>Oceania</b>								
Australia	5.5	10.1	10.8	10.1	10.7	9.4	10.9	13.0
Other	105.7	111.3	115.1	106.3	112.5	108.1	97.6	109.6
<b>Total <sup>c</sup></b>	<b>871.3</b>	<b>803.0</b>	<b>908.5</b>	<b>883.8</b>	<b>888.9</b>	<b>876.1</b>	<b>858.1</b>	<b>883.4</b>

<sup>a</sup> Regarded as fifteen countries. <sup>b</sup> International Grains Council data from 2000–01. <sup>c</sup> World totals do not necessarily equal those of other tables as a result of the different sources used.

Sources: ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; International Grains Council, *Grain Market Report*.

## Coarse grains

### 48 World coarse grains production, by grain

	Corn Mt	Barley Mt	Sorghum Mt	Oats Mt	Total <sup>a</sup> Mt
1960-61	199.6	78.9	40.8	55.9	439.4
1961-62	207.8	74.3	38.6	48.9	432.3
1962-63	207.3	87.1	41.8	48.7	448.6
1963-64	217.1	89.2	43.7	45.8	455.2
1964-65	215.4	96.3	41.6	42.6	460.6
1965-66	225.5	92.7	46.4	44.6	472.5
1966-67	250.1	102.5	49.3	46.3	508.9
1967-68	262.2	105.0	53.3	48.1	533.5
1968-69	252.5	115.0	51.5	51.5	533.9
1969-70	270.0	118.0	54.8	51.9	558.1
1970-71	268.1	119.8	55.1	51.6	559.2
1971-72	308.5	131.4	57.7	53.8	617.4
1972-73	301.4	132.5	54.0	47.6	594.2
1973-74	330.5	146.0	65.9	49.7	659.4
1974-75	299.8	149.6	60.3	46.7	622.7
1975-76	339.2	136.0	63.8	44.6	641.0
1976-77	356.1	166.2	62.2	45.8	692.0
1977-78	365.4	157.1	64.4	48.4	691.1
1978-79	392.1	175.6	63.6	48.5	744.2
1979-80	425.3	153.8	61.5	42.5	735.3
1980-81	408.8	157.4	59.4	41.5	723.6
1981-82	441.8	149.5	70.4	40.2	759.2
1982-83	440.1	161.2	65.2	46.2	775.6
1983-84	348.2	158.5	58.5	43.5	678.2
1984-85	458.6	170.5	65.8	45.8	806.3
1985-86	479.1	173.6	70.2	47.0	833.8
1986-87	476.0	178.1	64.5	44.6	824.7
1987-88	451.1	175.3	56.6	40.6	787.2
1988-89	400.9	164.0	54.5	35.4	722.9
1989-90	461.2	166.1	55.3	39.3	793.8
1990-91	482.4	179.2	53.7	39.3	829.1
1991-92	491.4	169.8	53.7	33.0	810.7
1992-93	538.5	166.0	65.5	33.9	871.6
1993-94	476.2	169.1	56.0	35.4	798.9
1994-95	560.3	161.0	58.0	33.0	871.3
1995-96	517.4	142.1	55.3	28.7	803.0
1996-97	592.2	153.6	69.5	30.6	908.5
1997-98	575.2	154.5	58.9	31.0	883.8
1998-99	605.6	136.0	59.4	25.7	888.9
1999-00	606.8	127.9	58.6	24.1	876.1
2000-01	586.1	134.7	52.7	26.2	858.1
2001-02	593.5	141.2	56.5	27.1	883.4

<sup>a</sup> Includes rye, millet and mixed grain.

Source: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## 49 World coarse grains trade, by region and country

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Africa								
Egypt	2.7	2.3	3.2	3.3	3.7	4.6	5.3	5.3
South Africa	0.9	0.4	0.3	0.3	0.7	0.1	0.6	0.8
Americas								
Brazil	1.6	0.7	0.7	1.9	1.3	2.0	0.5	1.0
Mexico	5.9	8.5	5.4	8.0	9.1	9.9	11.0	10.0
Asia								
China	6.4	3.0	2.1	1.6	2.6	2.3	2.6	2.4
Chinese Taipei	6.5	6.0	6.0	4.8	4.8	5.2	5.2	4.9
Japan	20.7	20.2	20.5	21.0	20.9	20.4	20.2	19.9
Korea, Rep. of	9.0	10.1	8.7	7.6	7.8	9.3	8.9	8.7
Europe								
Eastern Europe	2.0	1.7	2.7	1.4	1.2	1.7	2.9	1.8
European Union <sup>a</sup>	4.7	5.8	2.7	2.3	3.1	2.7	3.0	4.3
Russian Federation	6.5	9.9	5.8	3.4	0.8	1.0	0.9	0.3
Ukraine	1.2	1.6	1.6	0.2	0.0	0.0	0.0	0.0
Middle East								
Iran	1.6	1.7	2.2	1.6	1.4	1.9	1.9	1.8
Saudi Arabia	5.2	4.8	7.2	5.3	7.1	6.3	6.6	6.4
<b>Total <sup>b</sup></b>	<b>94.1</b>	<b>88.9</b>	<b>91.2</b>	<b>85.4</b>	<b>93.1</b>	<b>100.7</b>	<b>101.9</b>	<b>101.4</b>
<b>Exports</b>								
Africa								
South Africa	0.3	2.8	1.5	1.3	0.6	1.5	1.3	1.6
Asia								
China	1.6	0.2	4.0	6.2	3.4	10.0	7.3	7.0
Thailand	0.2	0.1	0.0	0.1	0.1	0.1	0.4	0.2
Americas								
Argentina	6.0	8.3	11.9	13.7	8.6	12.9	10.3	10.2
Canada	4.7	4.4	5.4	3.7	3.2	3.5	3.6	2.5
United States	62.4	63.0	51.6	45.3	56.0	56.3	56.6	55.0
Europe								
Eastern Europe	1.9	1.2	2.3	3.0	3.3	3.1	1.2	4.4
European Union <sup>a</sup>	7.9	4.6	8.6	4.0	9.2	13.0	10.1	4.8
Oceania								
Australia	1.6	4.9	4.7	3.8	5.5	4.2	5.2	5.7
<b>Total <sup>b</sup></b>	<b>93.5</b>	<b>94.3</b>	<b>93.8</b>	<b>86.2</b>	<b>93.7</b>	<b>107.4</b>	<b>105.8</b>	<b>101.3</b>

<sup>a</sup> Regarded as fifteen countries. Includes intra-EU trade. <sup>b</sup> Includes some unspecified countries.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Grain: World Markets and Trade*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## Coarse grains

### 50 World corn trade, by region and country <sup>a</sup>

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Canada	0.9	0.9	0.9	1.5	0.8	0.7	2.5	3.1
China	4.3	1.5	0.1	0.3	0.3	0.1	0.1	0.1
Chinese Taipei	6.2	5.7	5.7	4.5	4.6	5.0	4.9	4.7
European Union <sup>b</sup>	3.8	4.5	2.4	2.1	2.7	2.3	2.9	2.8
Japan	16.5	16.0	16.0	16.4	16.3	16.1	16.3	16.0
Korea, Rep. of	8.2	9.0	8.3	7.5	7.5	8.7	8.7	8.5
Malaysia	2.3	2.3	2.3	2.2	2.4	2.3	2.6	2.2
Mexico	3.2	6.4	3.1	4.4	5.6	4.9	5.9	5.0
Russian Federation	3.3	8.2	4.2	3.3	0.1	0.1	0.2	0.1
Ukraine	0.4	0.8	1.0	0.1	0.0	0.0	0.0	0.0
Total <sup>c</sup>	68.8	65.9	65.0	63.3	66.2	71.4	74.9	73.4
<b>Exports</b>								
Argentina	5.8	7.5	10.8	12.2	7.9	11.9	9.7	9.5
China	1.4	0.2	3.9	6.2	3.3	9.9	7.3	7.0
South Africa	0.3	2.7	1.4	1.2	0.5	1.4	1.3	1.6
Thailand	0.2	0.1	0.0	0.1	0.1	0.1	0.4	0.2
United States	55.3	56.6	45.7	38.2	50.4	49.2	49.3	48.3
Other	3.2	3.3	4.0	5.4	4.7	4.5	9.4	5.1
Total <sup>c</sup>	66.1	70.3	65.9	63.4	66.9	77.1	77.3	71.7

<sup>a</sup> September–August years. <sup>b</sup> Regarded as fifteen countries. Excludes intra-EU trade. <sup>c</sup> Includes some unspecified countries.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

### 51 World barley trade, by region and country

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
China	1.4	1.4	2.0	1.2	2.0	2.2	2.5	2.3
Eastern Europe	1.0	0.7	1.1	0.4	0.5	0.5	0.7	0.5
European Union <sup>a</sup>	0.2	0.3	0.1	0.0	0.1	0.1	0.2	1.2
Japan	1.8	1.7	1.4	1.4	1.4	1.4	2.4	3.4
Russian Federation	0.6	0.7	0.5	0.2	0.3	0.8	0.4	0.2
Saudi Arabia	4.3	3.9	5.9	4.0	5.9	4.8	5.2	5.0
Total <sup>b</sup>	15.0	13.3	16.9	12.7	16.9	17.1	16.6	17.5
<b>Exports</b>								
Australia	1.5	4.0	4.3	3.5	4.8	3.5	4.5	5.5
Canada	2.9	2.6	3.4	2.2	1.1	1.7	1.9	1.0
European Union <sup>a</sup>	5.4	2.3	6.9	2.5	7.4	10.1	7.9	3.5
United States	1.4	1.4	0.7	1.6	0.6	0.6	1.3	0.6
Total <sup>b</sup>	16.6	13.5	17.8	13.2	16.8	17.3	17.4	17.0

<sup>a</sup> Regarded as fifteen countries. Excludes intra-EU trade. <sup>b</sup> Includes some unspecified countries.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## 52 World sorghum trade, by country

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Chinese Taipei	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
European Union <b>a</b>	0.6	1.0	0.2	0.2	0.3	0.3	0.0	0.1
Israel	0.2	0.4	0.5	0.1	0.1	0.2	0.1	0.1
Japan	2.3	2.5	2.8	2.8	2.5	2.2	2.0	2.0
Mexico	2.5	1.8	2.1	3.3	3.3	4.8	4.9	4.8
<b>Total <b>b</b></b>	<b>6.0</b>	<b>6.2</b>	<b>6.0</b>	<b>6.8</b>	<b>6.4</b>	<b>8.0</b>	<b>7.1</b>	<b>7.3</b>
<b>Exports</b>								
Argentina	0.2	0.8	0.8	1.3	0.6	0.9	0.4	0.5
Australia	0.1	0.5	0.2	0.2	0.5	0.9	0.6	0.5
United States	5.7	5.0	5.2	5.4	5.0	6.5	6.0	6.1
<b>Total <b>b</b></b>	<b>6.4</b>	<b>6.7</b>	<b>6.4</b>	<b>7.0</b>	<b>6.3</b>	<b>8.5</b>	<b>7.2</b>	<b>7.2</b>

**a** Regarded as fifteen countries. Excludes intra-EU trade. **b** Includes some unspecified countries.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## 53 US coarse grains supply and disposal

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Area	million ha	37.4	33.6	38.1	36.9	36.2	35.0	35.6	33.9
Yield	t/ha	7.6	6.2	7.0	7.1	7.5	7.5	7.7	7.7
Production	Mt	283.5	210.0	265.7	260.4	271.5	263.2	273.1	261.9
Opening stocks	Mt	27.4	45.3	14.4	27.0	38.2	51.4	48.9	52.7
Imports	Mt	3.4	2.8	2.9	2.9	3.1	2.8	2.7	2.6
Availability	Mt	314.2	258.2	283.1	290.4	312.7	317.3	324.7	317.1
Domestic use	Mt	206.5	180.7	204.5	207.0	205.3	212.1	215.4	216.2
– feed	Mt	157.2	133.8	154.7	154.7	152.3	157.2	159.8	157.8
– food, seed	Mt	49.3	46.9	49.7	52.2	53.0	55.0	55.6	58.4
Exports	Mt	62.4	63.0	51.6	45.3	56.0	56.3	56.6	55.0
Closing stocks	Mt	45.3	14.4	27.0	38.2	51.4	48.9	52.7	45.9
– FOR <b>a</b>	Mt	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
– CCC <b>b</b>	Mt	1.2	0.9	0.1	0.1	0.3	0.4	0.4	0.2
– free	Mt	42.0	13.5	26.9	38.1	51.1	48.5	52.3	45.7

**a** Farmer Owned Reserve. **b** Commodity Credit Corporation.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, World Agricultural Supply and Demand Estimates, Washington DC.



## Coarse grains

### 54 US corn supply and disposal <sup>a</sup>

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Base area	million ha	33.0	na	na	na	na	na	na	na
Participation	%	81.0	82.0	98.0	na	na	na	na	na
ARP <sup>b</sup>	%	0.0	7.5	na	na	na	na	na	na
Area									
– idled <sup>c</sup>	million ha	2.1	2.5	na	na	na	na	na	na
– planted	million ha	32.1	28.8	32.1	32.2	32.5	31.3	32.2	30.7
– harvested	million ha	29.3	26.4	29.4	29.4	29.4	28.5	29.3	27.8
Yield	t/ha	8.70	7.12	7.98	7.95	8.44	8.40	8.60	8.67
Production	Mt	255.3	188.0	234.5	233.9	247.9	239.5	251.9	241.5
Opening stocks	Mt	21.6	39.6	10.8	22.4	33.2	45.4	43.6	48.2
Imports	Mt	0.2	0.4	0.3	0.2	0.5	0.4	0.2	0.3
Availability	Mt	277.1	228.0	245.7	256.5	281.6	285.3	295.7	290.0
Domestic use	Mt	182.3	160.6	177.6	185.1	185.8	192.5	198.1	148.0
– feed	Mt	138.7	119.2	134.0	139.2	138.9	143.9	148.4	148.0
– food, seed	Mt	43.6	41.4	43.5	45.8	46.9	48.6	49.7	52.2
Exports	Mt	55.3	56.6	45.7	38.2	50.4	49.2	49.3	48.3
Closing stocks	Mt	39.6	10.8	22.4	33.2	43.2	43.7	52.0	53.0
– FOR <sup>d</sup>	Mt	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
– CCC <sup>e</sup>	Mt	1.1	0.8	0.1	0.1	0.3	0.4	0.4	0.4
– free	Mt	36.5	10.1	22.4	33.2	42.8	43.3	51.6	52.6
Farm price	US\$/bus	2.26	3.24	2.71	2.43	1.94	1.82	1.85	1.97
Loan rate	US\$/bus	1.99	1.94	1.89	1.89	1.89	1.89	1.89	1.89
Export price <sup>f</sup>	US\$/t	105.3	160.1	132.4	112.4	94.5	89.9	86.6	90.1

<sup>a</sup> September–August crop years. <sup>b</sup> Area Reduction Program. <sup>c</sup> Set aside and diverted. <sup>d</sup> Farmer Owned Reserve. <sup>e</sup> Commodity Credit Corporation. <sup>f</sup> US no. 2 yellow corn fob Gulf. **na** Not available.

Sources: US Department of Agriculture, *Agricultural Outlook*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates*, Washington DC.

# 55 US sorghum and barley supply and disposal

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Sorghum a</b>									
Area harvested	million ha	3.6	3.3	4.8	3.7	3.1	3.5	3.1	3.5
Yield	t/ha	4.6	3.5	4.2	4.3	4.2	4.4	3.8	3.8
Production	Mt	16.4	11.7	20.2	16.1	13.2	15.1	12.0	13.1
Opening stocks	Mt	1.2	1.8	0.5	1.2	1.2	1.7	1.7	1.1
Availability	Mt	17.6	13.5	20.7	17.3	14.4	16.8	13.6	14.1
Domestic use	Mt	10.1	8.0	14.2	10.7	7.8	8.6	6.5	6.6
Exports	Mt	5.7	5.0	5.2	5.4	5.0	6.5	6.0	6.1
Closing stocks	Mt	1.8	0.5	1.2	1.2	1.7	1.7	1.1	1.4
Farm price	US\$/bus	2.1	3.2	2.3	2.2	1.7	1.6	1.9	2.0
Loan rate	US\$/bus	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7
Export price b	US\$/t	108.3	161.3	118.3	110.0	92.5	87.5	95.7	97.7
<b>Barley c</b>									
Area harvested	million ha	2.7	2.5	2.7	2.5	2.4	1.9	2.1	1.7
Yield	t/ha	3.0	3.1	3.1	3.1	3.2	3.2	3.3	3.1
Production	Mt	8.2	7.8	8.5	7.8	7.7	6.1	6.9	5.4
Opening stocks	Mt	3.0	2.5	2.2	2.4	2.6	3.1	2.4	2.3
Imports	Mt	1.4	0.9	0.8	0.9	0.6	0.6	0.6	0.5
Availability	Mt	12.6	11.2	11.5	11.1	10.9	9.8	10.0	8.3
Domestic use	Mt	8.7	7.6	8.5	6.9	7.2	6.8	6.4	5.7
Exports	Mt	1.4	1.4	0.7	1.6	0.6	0.6	1.3	0.6
Closing stocks	Mt	2.5	2.2	2.4	2.6	3.1	2.4	2.3	2.0
Farm price	US\$/bus	2.0	2.9	2.7	2.4	2.0	2.1	2.1	2.2
Loan rate	US\$/bus	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7
Export price d	US\$/t	119.1	166.9	137.8	118.2	95.9	105.3	110.7	111.6

a September–August crop years. b US no. 2 sorghum fob Gulf. c June–May crop years. d No. 2 barley fob Portland (July–June average).

Sources: US Department of Agriculture, *Agricultural Outlook*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates*, Washington DC.

## Coarse grains

### 56 Feedgrains export price quotations, by category

	US no. 2 hard red winter wheat (Gulf) <sup>a</sup> US\$/t	US no. 2 yellow corn (Gulf) <sup>a</sup> US\$/t	US no. 2 sorghum (Gulf) <sup>a</sup> US\$/t	US no. 2 barley (Portland) <sup>b</sup> US\$/t
1977-78	116.0	95.0	95.0	104.0
1978-79	141.0	103.0	103.0	102.0
1979-80	175.0	115.0	115.0	135.0
1980-81	183.0	142.0	142.0	149.0
1981-82	170.0	118.0	118.0	131.0
1982-83	160.0	115.0	115.0	116.0
1983-84	154.0	146.0	146.0	138.0
1984-85	148.0	124.0	124.0	119.0
1985-86	128.0	106.0	106.0	100.0
1986-87	110.5	77.0	77.0	94.0
1987-88	123.4	86.0	86.0	101.0
1988-89	165.8	118.0	118.0	127.0
1989-90	160.8	110.7	110.7	123.0
1990-91	117.9	106.5	106.5	118.0
1991-92	151.0	110.4	110.4	122.0
1992-93	141.3	97.9	97.9	115.0
1993-94	141.5	114.8	114.8	112.0
1994-95	156.4	105.3	105.3	119.1
1995-96	215.3	160.1	160.1	166.9
1996-97	178.5	132.4	132.4	137.8
1997-98	141.8	112.4	112.4	118.2
1998-99	119.1	94.5	94.5	95.9
1999-00	113.2	89.9	89.9	105.3
2000-01	128.5	86.6	86.6	110.7
2001-02	127.5	90.1	90.1	111.6
<b>2001</b>				
January	136.0	95.7	104.2	119.2
February	131.3	93.2	101.6	115.6
March	131.0	93.1	100.0	114.2
April	131.8	88.0	95.2	112.9
May	136.0	85.8	96.2	110.8
June	130.0	83.2	90.8	110.4
July	127.5	90.7	93.5	109.3
August	127.0	93.0	96.7	112.6
September	126.3	89.5	93.9	113.8
October	127.3	86.9	94.1	114.2
November	129.4	90.1	98.0	113.6
December	125.3	87.1	89.9	111.4
<b>2002</b>				
January	130.0	92.1	99.8	110.5
February	127.0	91.0	97.8	112.3
March	125.8	90.0	95.8	112.0
April	125.3	87.3	93.7	110.9
May	123.6	90.5	95.1	110.9
June	135.8	93.5	97.3	107.9
July	151.2	99.7	102.6	112.1
August	165.2	110.0	114.7	119.4

<sup>a</sup> Export price, fob Gulf ports. <sup>b</sup> Export price, fob Portland.

Sources: International Grains Council, *Market Report*, London; US Department of Agriculture, Economic Research Service, *Wheat Situation and Outlook Report*, Washington DC.

# 57 Coarse grains supply and disposal in major exporting countries

	Area harvested million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports Mt	Closing stocks Mt
<b>United States (September–August)</b>						
1995-96	33.6	6.25	210.0	180.7	63.0	14.4
1996-97	38.1	6.97	265.7	204.5	51.6	27.0
1997-98	36.9	7.06	260.4	207.0	45.3	38.2
1998-99	36.2	7.51	271.5	205.3	56.0	51.4
1999-00	35.0	7.51	263.2	212.1	56.3	48.9
2000-01	35.6	7.67	273.1	215.4	56.6	52.7
2001-02	33.9	7.72	261.9	216.2	55.0	45.9
<b>Canada (August–July) <sup>a</sup></b>						
1995-96	7.0	3.46	24.1	21.0	4.4	2.9
1996-97	8.0	3.52	28.2	21.8	5.4	4.8
1997-98	7.6	3.31	25.1	23.5	3.7	4.3
1998-99	7.4	3.60	26.6	23.6	3.2	4.9
1999-00	6.9	3.87	26.8	23.3	3.5	5.7
2000-01	7.2	3.39	24.3	24.7	3.6	4.3
2001-02	7.0	3.28	22.9	24.7	2.5	3.2
<b>Argentina (March–February)</b>						
1995-96	3.9	3.61	13.9	6.4	8.3	0.7
1996-97	4.7	4.06	18.9	6.8	11.9	1.1
1997-98	4.7	5.28	24.7	9.7	13.7	2.4
1998-99	3.9	4.57	17.8	10.0	8.6	1.6
1999-00	4.5	4.86	21.7	9.1	12.9	1.3
2000-01	4.1	4.81	19.6	9.4	10.3	1.2
2001-02	3.7	5.00	18.4	8.3	10.2	1.2
<b>Australia (November–October)</b>						
1995-96	5.3	1.90	10.1	5.8	4.9	0.2
1996-97	5.4	2.02	10.8	6.3	4.7	0.3
1997-98	5.4	1.87	10.1	5.7	3.8	1.2
1998-99	5.1	2.10	10.7	6.5	5.5	0.3
1999-00	4.2	2.22	9.4	5.9	4.2	0.2
2000-01	5.3	2.05	10.9	6.2	5.2	0.1
2001-02	5.7	2.28	13.0	6.9	5.7	0.4
<b>European Union (July–June) <sup>b</sup></b>						
1995-96	18.5	4.79	88.5	92.5	4.6	10.0
1996-97	19.6	5.28	103.8	95.9	8.6	12.0
1997-98	20.5	5.34	109.4	98.1	4.0	21.7
1998-99	20.1	5.26	105.5	97.5	9.2	23.5
1999-00	19.0	5.37	102.1	95.8	13.0	19.5
2000-01	19.3	5.56	107.2	102.8	10.1	16.9
2001-02	19.5	5.41	105.7	102.3	4.8	19.7
<b>World</b>						
1995-96	313.9	2.56	803.0	841.9	94.3	151.7
1996-97	322.7	2.82	908.5	875.1	93.8	185.2
1997-98	311.1	2.84	883.8	873.2	86.2	195.7
1998-99	307.2	2.89	888.9	869.4	93.7	215.2
1999-00	299.6	2.92	876.1	881.7	107.4	209.6
2000-01	295.2	2.91	858.1	881.5	105.8	186.2
2001-02	299.7	2.95	883.4	898.9	101.3	170.8

<sup>a</sup> Canada also imports about 0.5 million tonnes of grain from the United States each year. <sup>b</sup> Regarded as fifteen countries. Includes intra-EU trade.

Note: The marketing period of each country is shown in parentheses.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; ABARE.

## Cotton

### 58 Australian cotton area harvested and lint yield <sup>a</sup>

	Area harvested			Lint yield		
	New South Wales '000 ha	Queensland '000 ha	Australia <sup>b</sup> '000 ha	New South Wales t/ha	Queensland t/ha	Australia <sup>b</sup> t/ha
1960-61	na	na	15.0	na	na	0.173
1961-62	na	na	11.7	na	na	0.188
1962-63	na	na	15.3	na	na	0.118
1963-64	na	na	15.6	na	na	0.161
1964-65	7.3	7.9	15.3	0.942	0.207	0.652
1965-66	12.5	5.9	22.2	1.247	0.326	0.913
1966-67	12.3	5.5	21.5	0.927	0.541	0.855
1967-68	19.4	5.2	31.1	1.301	0.731	1.057
1968-69	22.3	6.3	32.5	1.158	0.722	1.035
1969-70	23.1	5.9	31.7	0.880	0.735	0.874
1970-71	26.4	5.2	35.1	0.485	0.596	0.565
1971-72	29.3	6.9	40.1	1.133	0.957	1.081
1972-73	31.7	8.0	43.6	0.744	0.600	0.720
1973-74	31.0	7.1	41.7	0.703	0.930	0.731
1974-75	27.5	7.4	38.5	0.982	0.797	0.856
1975-76	23.9	6.0	29.8	0.853	0.750	0.835
1976-77	24.8	8.9	35.3	0.847	0.787	0.794
1977-78	31.6	9.6	41.6	1.104	0.969	1.063
1978-79	36.1	13.4	49.8	1.102	0.993	1.063
1979-80	51.4	20.0	75.0	1.243	0.965	1.109
1980-81	61.6	22.0	83.6	1.252	0.991	1.183
1981-82	74.5	29.0	103.5	1.456	0.900	1.298
1982-83	71.9	24.6	96.5	1.043	1.049	1.045
1983-84	104.5	32.9	137.4	1.027	1.033	1.028
1984-85	131.2	51.9	183.1	1.538	0.904	1.358
1985-86	135.8	41.2	177.0	1.593	1.238	1.510
1986-87	125.0	31.0	156.0	1.451	1.297	1.420
1987-88	163.6	80.9	244.6	1.204	0.890	1.100
1988-89	140.8	53.3	194.1	1.577	1.332	1.515
1989-90	175.0	64.8	239.8	1.346	1.077	1.273
1990-91	202.0	77.0	279.0	1.678	1.403	1.552
1991-92	225.0	87.0	312.0	1.812	1.688	1.609
1992-93	204.0	82.0	286.0	1.478	1.314	1.304
1993-94	210.0	84.0	294.0	1.301	1.123	1.120
1994-95	157.0	89.0	246.0	1.594	1.402	1.362
1995-96	185.5	118.4	321.0	1.460	1.270	1.311
1996-97	277.0	119.1	396.1	1.599	1.403	1.535
1997-98	299.3	138.8	438.2	1.588	1.371	1.519
1998-99	381.7	179.9	561.5	1.243	1.341	1.275
1999-00	313.0	151.3	464.3	1.574	1.638	1.595
2000-01	325.3	185.5	510.7	1.627	1.432	1.556
2001-02	287.8	115.0	402.8	1.771	1.594	1.720

<sup>a</sup> August–July crop years. <sup>b</sup> Includes data for Western Australia. **na** Not available.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia*, cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News*, Canberra; ABARE.

# 59 Australian cottonseed and lint production <sup>a</sup>

	Cottonseed production			Lint production		
	New South Wales kt	Queensland kt	Australia <sup>b</sup> kt	New South Wales kt	Queensland kt	Australia <sup>b</sup> kt
1960-61	na	na	4.5	na	na	2.6
1961-62	na	na	3.8	na	na	2.2
1962-63	na	na	3.1	na	na	1.8
1963-64	na	na	4.4	na	na	2.5
1964-65	11.8	2.8	17.4	6.8	1.6	10.0
1965-66	27.0	3.3	35.4	15.5	1.9	20.3
1966-67	20.0	5.2	32.1	11.5	3.0	18.4
1967-68	43.9	6.6	57.3	25.2	3.8	32.9
1968-69	44.9	8.0	58.5	25.8	4.6	33.6
1969-70	35.5	7.7	48.3	20.4	4.4	27.7
1970-71	22.3	5.4	31.9	12.8	3.1	19.8
1971-72	52.8	12.7	69.1	33.2	6.6	43.3
1972-73	36.4	10.7	50.7	23.6	4.8	31.4
1973-74	35.7	10.8	49.8	21.8	6.6	30.5
1974-75	44.1	9.7	53.8	27.0	5.9	33.0
1975-76	33.2	7.4	40.6	20.4	4.5	24.9
1976-77	34.9	11.7	46.6	21.0	7.0	28.0
1977-78	56.9	15.2	72.1	34.9	9.3	44.2
1978-79	56.8	21.7	78.5	39.8	13.3	53.0
1979-80	104.3	31.5	135.8	63.9	19.3	83.2
1980-81	125.8	35.6	161.4	77.1	21.8	98.9
1981-82	176.5	42.6	219.1	108.2	26.1	134.3
1982-83	112.3	42.1	154.4	75.0	25.8	100.8
1983-84	135.0	55.2	190.2	107.3	34.0	141.3
1984-85	308.2	102.2	410.4	201.8	46.9	248.7
1985-86	308.0	74.0	382.0	216.3	51.0	267.3
1986-87	281.6	48.4	330.0	181.4	40.2	221.6
1987-88	333.9	101.1	435.0	197.0	72.0	269.0
1988-89	345.0	74.3	419.3	222.0	71.0	294.0
1989-90	380.0	113.0	493.0	235.6	69.8	305.3
1990-91	526.0	160.0	686.0	330.6	102.4	433.0
1991-92	563.0	186.0	749.0	376.8	124.9	502.0
1992-93	365.1	162.4	527.5	258.2	114.8	373.0
1993-94	334.2	131.3	465.5	236.5	92.7	329.2
1994-95	550.0	246.0	796.0	202.6	132.4	335.0
1995-96	630.0	303.0	933.0	270.4	150.2	420.7
1996-97	627.5	232.6	860.1	433.4	173.9	608.3
1997-98	672.3	269.0	941.3	475.4	190.3	665.6
1998-99	671.1	341.0	1 012.1	474.6	241.2	715.7
1999-00	696.9	350.4	1 047.3	492.8	247.8	740.6
2000-01	748.1	375.4	1 123.6	529.0	265.5	794.5
2001-02	720.6	259.3	979.8	509.6	183.3	692.9

<sup>a</sup> August–July crop year. <sup>b</sup> Includes data for Western Australia. **na** Not available.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia*, cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News*, Canberra; ABARE.

## Cotton

### 60 Australian production, trade and use of raw cotton

	Domestic lint production a kt	Gross value of production b \$m	Imports		Exports		Use kt
			Volume kt	Value \$m	Volume kt	Value \$m	
1960-61	2.6	na	na	na	na	na	na
1961-62	2.2	1.3	na	na	na	na	na
1962-63	1.8	1.9	19.3	na	na	na	21.3
1963-64	2.5	2.2	25.7	na	na	na	25.5
1964-65	10.0	7.7	25.2	na	na	na	25.6
1965-66	20.3	14.3	14.6	8.2	na	na	28.3
1966-67	18.4	13.6	9.1	4.7	na	na	28.8
1967-68	32.9	19.7	12.3	6.9	na	na	28.1
1968-69	33.6	20.7	5.7	3.8	3.7	1.9	28.9
1969-70	27.7	18.6	4.7	3.0	11.5	5.1	30.1
1970-71	19.8	14.0	7.0	4.3	7.4	3.4	30.3
1971-72	43.3	29.8	8.9	5.8	2.4	1.6	27.4
1972-73	31.4	32.6	3.8	2.7	22.3	11.3	28.7
1973-74	30.5	32.6	8.4	9.3	3.2	1.8	31.6
1974-75	33.0	26.6	4.0	4.8	7.7	5.4	23.3
1975-76	24.9	29.3	4.1	4.4	16.0	11.5	26.9
1976-77	28.0	37.5	5.0	7.4	5.5	7.1	22.2
1977-78	44.2	52.2	4.0	5.6	9.8	10.9	21.4
1978-79	53.0	76.0	1.7	3.1	23.6	28.5	20.6
1979-80	83.2	135.3	2.0	4.0	48.5	66.9	21.2
1980-81	98.9	147.0	2.2	4.3	59.0	92.0	21.7
1981-82	134.3	182.0	1.0	1.9	79.0	117.0	20.4
1982-83	100.8	168.0	0.7	1.3	129.0	198.0	17.5
1983-84	141.3	269.0	1.1	2.4	82.0	148.0	20.5
1984-85	248.7	330.0	2.7	6.0	140.0	262.0	20.3
1985-86	267.3	295.0	0.5	1.4	241.0	380.0	21.0
1986-87	221.6	372.5	0.3	0.6	251.0	345.0	22.3
1987-88	269.0	421.6	0.3	0.7	176.0	353.0	22.2
1988-89	294.0	536.9	1.1	2.9	287.3	462.8	21.8
1989-90	305.3	658.0	0.1	0.3	306.0	579.8	24.3
1990-91	433.0	981.0	0.7	2.2	339.7	737.7	23.0
1991-92	502.0	972.0	0.7	1.8	458.1	945.0	27.7
1992-93	373.0	770.0	0.3	1.3	396.0	755.5	28.3
1993-94	329.2	739.0	0.3	1.4	360.5	732.0	31.7
1994-95	335.0	910.0	0.2	1.2	296.4	678.0	33.4
1995-96	420.7	1 001.0	0.7	2.0	311.4	762.3	42.0
1996-97	608.3	1 342.0	0.2	0.6	505.0	1 076.9	42.4
1997-98	665.6	1 449.2	0.2	1.0	593.4	1 385.6	40.4
1998-99	715.7	1 378.0	0.2	1.0	646.7	1 559.0	37.7
1999-00	740.6	1 570.0	0.4	1.4	703.0	1 406.6	40.6
2000-01	794.5	1 773.5	0.4	1.6	833.8	1 957.1	36.1
2001-02	692.9	1 481.6	0.4	1.0	718.4	1 547.2	32.0

a August–July crop year. b Includes cottonseed. na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia*, cat. no. 7503.0, Canberra; Raw Cotton Marketing Advisory Committee, *Annual Report*, Canberra; ABARE.

# 61 Australian exports of raw cotton, by destination

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Asia	278.4	281.7	463.9	537.5	594.1	657.7	778.6	674.8
China	18.4	18.9	76.4	74.7	18.2	5.4	11.4	13.1
Chinese Taipei	11.7	17.7	24.0	28.1	30.0	26.7	31.6	21.5
India	2.4	0.7	0.9	18.3	14.3	41.8	66.1	55.0
Indonesia	69.6	99.1	161.0	161.5	209.3	182.9	220.3	193.9
Japan	95.6	69.2	78.4	101.3	135.4	138.9	139.6	120.9
Korea, Rep. of	19.8	28.1	28.6	35.7	50.1	53.0	75.3	94.0
Pakistan	0.0	0.0	1.2	3.7	18.6	48.8	39.6	29.1
Philippines	15.0	6.2	10.5	8.1	7.2	12.2	11.6	5.1
Thailand	19.5	20.1	38.7	55.4	79.4	95.0	114.5	90.1
Other	26.5	21.7	44.3	50.9	31.6	53.0	68.8	52.1
Europe	17.3	24.9	30.5	49.2	45.0	41.1	49.3	41.3
Germany	1.8	0.4	0.3	3.2	0.6	0.8	0.0	0.0
Italy	7.2	17.1	19.0	30.4	27.4	22.4	29.2	24.3
Spain	5.1	5.0	5.6	11.5	9.0	3.0	2.6	2.9
Other	3.2	2.3	5.6	4.1	7.9	14.9	17.5	14.1
United States	0.0	2.8	7.2	0.3	0.2	0.1	0.4	0.0
Other countries	0.6	4.9	10.6	6.7	7.6	4.2	5.9	2.3
<b>Total</b>	<b>296.4</b>	<b>311.4</b>	<b>505.0</b>	<b>593.4</b>	<b>646.7</b>	<b>703.0</b>	<b>833.8</b>	<b>718.4</b>

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



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### 62 Cotton prices and unit values

	Cotlook 'A' index <sup>a</sup> USc/lb	Australian base price for raw cotton <sup>b</sup> Ac/kg	Average unit export return for raw cotton Ac/kg	Average gross unit value <sup>c</sup> Ac/kg
1960-61	na	57.0	na	0.0
1961-62	na	59.0	na	59.1
1962-63	na	59.0	na	105.6
1963-64	na	57.0	na	88.0
1964-65	na	57.0	na	77.0
1965-66	na	57.0	na	70.4
1966-67	28.4	55.0	na	73.9
1967-68	31.3	58.0	na	59.9
1968-69	28.8	60.0	51.4	61.6
1969-70	28.0	58.0	44.3	67.1
1970-71	31.1	65.0	45.9	70.7
1971-72	37.2	72.0	66.7	68.8
1972-73	42.0	72.0	50.7	103.8
1973-74	76.5	120.0	56.3	106.9
1974-75	52.5	90.0	70.1	80.6
1975-76	65.3	117.0	71.9	117.7
1976-77	81.9	166.0	129.1	133.9
1977-78	65.1	135.0	111.2	118.0
1978-79	76.1	156.0	120.8	143.4
1979-80	85.4	179.0	137.9	162.6
1980-81	94.2	192.0	155.9	148.6
1981-82	73.8	164.0	148.1	135.5
1982-83	76.7	199.0	153.5	166.7
1983-84	87.7	237.0	180.5	190.4
1984-85	69.2	226.0	187.1	132.7
1985-86	49.0	174.0	157.7	110.4
1986-87	62.1	211.0	137.5	168.1
1987-88	72.3	237.0	200.6	156.7
1988-89	66.4	186.6	161.1	182.6
1989-90	82.4	247.7	189.5	215.5
1990-91	82.9	249.5	217.1	226.6
1991-92	63.1	198.4	206.3	193.6
1992-93	57.7	197.6	190.8	206.4
1993-94	70.6	234.4	203.0	224.5
1994-95	91.6	286.5	228.8	271.6
1995-96	86.3	265.0	244.8	238.0
1996-97	78.5	234.6	213.2	220.6
1997-98	73.2	251.9	233.5	217.7
1998-99	60.2	227.5	241.1	192.5
1999-00	52.5	199.2	200.1	212.0
2000-01	58.4	256.6	234.7	223.2
2001-02	41.8	195.1	215.4	213.8

<sup>a</sup> Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1972-73 to July 1981, and for SM 1 3/32" cotton from August 1981. August–July crop year. <sup>b</sup> Equivalent to 'in store' prices – that is, Cotlook prices in USc/lb to which freight differentials have been added, then converted to Australian currency, with 'into store' charges added finally. Prices approximate import parity prices. <sup>c</sup> Gross value of production including cottonseed, divided by lint production. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News*, Canberra; Cotlook Limited, *Cotton Outlook*, United Kingdom; ABARE.

# 63 Summary of world statistics for raw cotton <sup>a</sup>

	Opening stocks kt	Production kt	Total supply kt	Consumption kt	Imports <sup>b</sup> kt	Price <sup>c</sup> US\$/lb
1960-61	na	9 812	na	10 064	3 770	na
1961-62	4 110	9 682	13 792	9 840	3 476	na
1962-63	4 064	10 224	14 288	9 576	3 587	na
1963-64	4 901	11 052	15 953	10 410	3 870	na
1964-65	5 552	11 707	17 259	11 157	3 785	na
1965-66	6 218	12 386	18 604	11 712	3 726	na
1966-67	6 982	11 381	18 363	12 200	3 925	28.4
1967-68	6 113	11 218	17 331	12 241	3 782	31.3
1968-69	5 061	12 383	17 444	12 273	3 682	28.8
1969-70	5 143	11 909	17 052	12 189	3 860	28.0
1970-71	4 888	11 991	16 879	12 428	5 358	31.1
1971-72	4 675	12 871	17 546	12 718	5 369	37.2
1972-73	4 790	13 450	18 240	12 956	5 956	42.0
1973-74	5 229	13 638	18 867	13 130	5 819	76.5
1974-75	5 839	13 860	19 699	12 409	5 186	52.5
1975-76	7 186	11 745	18 931	13 404	5 724	65.3
1976-77	5 576	12 272	17 848	13 102	5 437	81.9
1977-78	4 813	13 905	18 718	13 295	5 898	65.1
1978-79	5 521	12 988	18 509	13 793	5 902	76.1
1979-80	4 726	14 255	18 981	14 367	6 642	85.4
1980-81	4 634	13 823	18 457	14 148	5 934	94.2
1981-82	4 503	14 952	19 455	13 768	5 596	73.8
1982-83	5 601	14 505	20 106	14 579	5 676	76.7
1983-84	5 549	14 314	19 863	14 965	5 891	87.7
1984-85	5 183	19 302	24 485	15 396	6 016	69.2
1985-86	9 076	17 480	26 556	16 399	6 313	49.0
1986-87	10 311	15 367	25 678	17 894	7 206	62.1
1987-88	7 685	17 641	25 326	18 325	6 648	72.3
1988-89	7 000	18 374	25 374	18 554	7 326	66.4
1989-90	6 723	17 362	24 085	18 916	7 123	82.4
1990-91	5 418	18 935	24 353	18 634	6 675	82.9
1991-92	5 886	20 832	26 718	18 733	6 362	63.1
1992-93	8 022	17 961	25 983	18 686	5 884	57.7
1993-94	7 471	16 707	24 178	18 606	6 065	70.6
1994-95	5 847	18 749	24 596	18 492	6 647	91.6
1995-96	6 521	20 318	26 839	18 765	5 994	86.3
1996-97	8 001	19 547	27 548	19 151	6 277	78.5
1997-98	8 797	20 009	28 806	18 972	5 717	73.2
1998-99	9 912	18 566	28 478	18 439	5 433	60.2
1999-00	10 405	19 043	29 448	19 823	6 206	52.5
2000-01	9 862	19 322	29 184	20 028	5 813	58.4
2001-02	9 298	21 400	30 698	20 534	6 411	41.8

<sup>a</sup> August–July crop year. <sup>b</sup> Includes trade among the twelve republics of the former Soviet Union and Estonia, Latvia and Lithuania. <sup>c</sup> Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1972-73 to July 1981, and for SM 1 3/32" cotton from August 1981. **na** Not available.

Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; Cotlook Limited, *Cotton Outlook*, United Kingdom; ABARE.

## Cotton

### 64 World area, yield and production of raw cotton <sup>a</sup>

	Area harvested '000 ha	Lint yield kg/ha	Production					World kt
			Central Asian Republics <sup>b</sup> kt	India kt	Pakistan kt	United States kt	China kt	
1960-61	32 120	305	na	na	na	3 100	1 067	9 812
1961-62	32 413	299	na	895	328	3 110	806	9 682
1962-63	31 780	322	na	1 086	368	3 228	740	10 224
1963-64	32 882	336	na	1 103	422	3 330	1 197	11 052
1964-65	33 551	349	na	1 031	380	3 297	1 655	11 707
1965-66	33 326	372	na	961	417	3 255	2 090	12 386
1966-67	31 210	365	na	960	466	2 080	2 330	11 381
1967-68	30 964	362	na	1 129	520	1 621	2 351	11 218
1968-69	31 921	388	na	1 035	529	2 379	2 351	12 383
1969-70	32 487	367	na	1 044	538	2 175	2 079	11 909
1970-71	31 801	377	na	963	544	2 219	2 286	11 991
1971-72	33 043	390	na	1 260	707	2 281	2 112	12 871
1972-73	33 538	401	na	1 125	675	2 984	1 960	13 450
1973-74	32 849	415	na	1 079	633	2 825	2 547	13 638
1974-75	33 530	413	na	1 199	610	2 513	2 460	13 860
1975-76	29 889	393	na	1 130	494	1 808	2 373	11 745
1976-77	30 568	401	na	1 012	418	2 304	2 068	12 272
1977-78	33 568	414	na	1 229	553	3 133	2 047	13 905
1978-79	32 901	395	na	1 348	464	2 364	2 166	12 988
1979-80	32 211	443	na	1 363	744	3 185	2 199	14 255
1980-81	32 272	428	na	1 322	714	2 422	2 700	13 823
1981-82	32 972	453	na	1 428	748	3 407	2 961	14 952
1982-83	31 381	462	na	1 471	823	2 605	3 592	14 505
1983-84	30 920	463	na	1 333	494	1 692	4 638	14 314
1984-85	33 723	572	na	1 820	1 008	2 827	6 249	19 302
1985-86	31 582	553	na	1 964	1 216	2 925	4 137	17 480
1986-87	29 360	523	na	1 579	1 320	2 119	3 549	15 367
1987-88	30 878	571	na	1 555	1 468	3 214	4 246	17 641
1988-89	33 765	544	na	1 788	1 426	3 355	4 159	18 374
1989-90	31 567	550	na	2 295	1 456	2 655	3 788	17 362
1990-91	33 170	571	na	1 989	1 638	3 376	4 507	18 935
1991-92	34 820	598	na	2 023	2 177	3 835	5 683	20 832
1992-93	32 631	550	1 880	2 346	1 540	3 531	4 507	17 961
1993-94	30 706	544	1 947	2 134	1 368	3 513	3 745	16 707
1994-95	32 200	581	1 820	2 427	1 361	4 281	4 333	18 749
1995-96	35 958	564	1 716	2 885	1 785	3 897	4 768	20 318
1996-97	33 842	577	1 355	3 030	1 594	4 124	4 202	19 547
1997-98	33 772	592	1 506	2 686	1 562	4 092	4 594	20 009
1998-99	32 958	561	1 399	2 805	1 372	3 030	4 507	18 566
1999-00	32 373	588	1 559	2 652	1 872	3 694	3 832	19 043
2000-01	31 925	602	1 370	2 380	1 785	3 742	4 420	19 322
2001-02	34 063	627	1 569	2 678	1 807	4 421	5 313	21 400

<sup>a</sup> August–July crop year. <sup>b</sup> Includes Tajikistan, Turkmenistan, Uzbekistan, Kyrgyzstan and Kazakhstan. **na** Not applicable.

Sources: US Department of Agriculture, *Cotton: World Markets and Trade*, Foreign Agriculture Service Circular, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## 65 World exports of raw cotton, by country <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Africa	802	881	1 029	1 109	1 124	1 144	1 048	1 109
Asia	169	508	349	208	247	524	293	163
China	40	5	2	7	148	368	98	74
Pakistan	32	312	26	83	2	90	125	35
Central Asian Republics								
Tajikistan	145	98	87	81	93	77	85	103
Turkmenistan	320	200	114	109	163	174	147	98
Uzbekistan	1 090	984	991	995	830	893	740	740
Australia	296	311	505	593	647	703	834	705
Central and South America	391	450	365	308	316	150	259	246
United States	2 047	1 671	1 495	1 633	946	1 470	1 472	2 395
Other	939	894	909	783	797	803	872	771
Total	6 199	5 997	5 844	5 819	5 163	5 942	5 789	6 330

<sup>a</sup> August–July crop year. Includes small quantities re-exported.

Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## 66 World imports of raw cotton, by destination <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Asia	3 375	2 987	2 999	2 437	2 550	2 768	2 753	3 119
China	884	663	787	399	78	25	52	98
Hong Kong, Korea, Rep. of and Chinese Taipei	816	858	783	693	746	783	653	752
Japan	381	330	292	292	275	279	248	231
Other Asia	1 294	1 136	1 137	1 053	1 451	1 681	1 800	2 038
Europe	2 052	1 766	1 708	1 712	1 441	1 599	1 580	1 586
Eastern Europe <sup>b</sup>	270	285	276	279	246	222	215	216
European Union <sup>c</sup>	1 093	1 039	1 054	1 004	851	873	850	811
Other Europe	689	442	378	429	344	504	515	559
Other	1 229	1 194	1 584	1 568	1 443	1 839	1 481	1 706
Total	6 656	5 947	6 291	5 717	5 434	6 206	5 814	6 411

<sup>a</sup> August–July crop year. Does not include cotton in transit. <sup>b</sup> Includes imports into Albania, Bulgaria, former Czechoslovakia, Czech Republic, Slovakia, Hungary, Poland, Romania and former Yugoslavia. <sup>c</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular*, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## Dairy products

### 67 Summary of Australian statistics for dairy products

	Dairy cow numbers a '000	Milk yield per cow L	Production			Export price c	
			Milk b ML	Butter kt	Cheese kt	Butter \$/t	Cheese \$/t
1960-61	3 162	1 926	6 089	182	48	638	503
1961-62	3 230	2 032	6 563	201	57	598	458
1962-63	3 263	2 045	6 673	204	60	604	462
1963-64	3 296	2 064	6 803	206	59	618	477
1964-65	3 214	2 151	6 914	206	63	688	514
1965-66	3 094	2 236	6 919	209	60	669	534
1966-67	3 061	2 383	7 295	222	70	607	591
1967-68	2 963	2 298	6 808	196	71	584	519
1968-69	2 866	2 430	6 965	198	75	523	545
1969-70	2 829	2 659	7 523	223	76	512	480
1970-71	2 745	2 641	7 249	203	78	516	504
1971-72	2 693	2 629	7 079	196	81	793	673
1972-73	2 647	2 626	6 952	185	93	784	733
1973-74	2 492	2 711	6 756	175	96	695	761
1974-75	2 477	2 623	6 497	161	99	955	1 012
1975-76	2 467	2 533	6 248	148	113	836	1 117
1976-77	2 279	2 533	5 772	118	104	1 124	1 070
1977-78	2 056	2 734	5 621	112	116	1 280	1 259
1978-79	1 921	2 951	5 669	105	142	1 249	1 337
1979-80	1 869	2 906	5 432	84	151	1 595	1 545
1980-81	1 819	2 871	5 223	79	135	1 875	1 926
1981-82	1 810	2 905	5 258	76	153	2 714	2 158
1982-83	1 792	3 078	5 516	88	158	2 412	2 444
1983-84	1 809	3 269	5 913	111	161	1 871	2 611
1984-85	1 809	3 335	6 033	114	160	1 617	2 433
1985-86	1 770	3 411	6 038	105	170	1 592	2 515
1986-87	1 757	3 598	6 173	104	177	1 758	2 645
1987-88	1 714	3 657	6 130	94	176	1 634	2 735
1988-89	1 709	3 781	6 290	96	191	1 970	2 990
1989-90	1 698	3 790	6 263	104	175	2 421	3 461
1990-91	1 682	3 911	6 403	106	179	1 968	3 203
1991-92	1 699	4 074	6 732	108	198	2 177	3 316
1992-93	1 716	4 318	7 327	126	210	2 241	3 693
1993-94	1 786	4 523	8 077	143	234	2 197	3 750
1994-95	1 821	4 506	8 206	131	241	2 076	3 449
1995-96	1 884	4 626	8 716	143	272	2 993	3 881
1996-97	1 977	4 571	9 036	147	290	2 217	3 702
1997-98	2 060	4 582	9 439	154	310	2 513	3 955
1998-99	2 155	4 723	10 178	176	327	2 819	3 967
1999-00	2 171	4 996	10 847	170	373	2 350	3 670
2000-01	2 176	4 846	10 545	151	376	2 706	4 342
2001-02	2 123	5 309	11 271	164	431	2 767	4 738

a Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of \$5 000 or more. From 1999-2000, at 30 June. House cows and heifers are included before 1977-78, but excluded thereafter. Before 1986-87, includes livestock holdings on establishments with an EVAO of \$2 500 or more. b Before 1980-81, milk production included an estimate of on-farm use. c Fob.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Preliminary*, cat. no. 7111.0, Canberra; Australian Dairy Corporation, *Monthly Statistics*, Melbourne; ABARE.

# 68 Value of Australian exports of dairy products, by destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Cheese</b>								
Japan	\$m	198.8	197.2	255.7	276.0	306.6	338.8	429.2
Philippines	\$m	18.6	17.7	22.0	21.6	16.4	18.6	20.0
Saudi Arabia	\$m	64.3	53.7	74.3	81.6	94.1	123.6	148.2
United Kingdom	\$m	20.3	32.2	18.2	29.5	23.9	38.7	21.5
United States	\$m	17.0	21.5	26.1	30.2	28.8	39.1	48.3
Other	\$m	144.3	153.2	210.2	256.1	336.8	391.0	366.3
Total	\$m	463.3	475.6	606.6	695.0	806.6	949.9	1 033.4
<b>Butter and butterfat <sup>a</sup></b>								
Egypt	\$m	11.6	20.4	11.8	33.0	33.7	34.6	23.5
Malaysia	\$m	13.4	13.0	11.5	11.7	15.8	14.7	14.4
Philippines	\$m	16.6	10.7	11.2	11.4	11.9	8.6	5.1
Singapore	\$m	23.4	18.3	19.5	20.7	19.4	16.7	20.4
Thailand	\$m	37.8	22.4	21.3	22.9	27.3	19.8	23.0
Other	\$m	77.7	135.6	163.1	194.6	182.6	196.6	211.0
Total	\$m	180.6	220.5	238.3	294.3	290.5	291.0	297.4
<b>Skim milk powder</b>								
Japan	\$m	56.3	48.1	50.9	25.6	56.2	48.9	53.7
Malaysia	\$m	75.3	76.0	76.8	73.7	78.3	87.4	88.4
Philippines	\$m	122.4	113.4	101.6	128.5	102.0	181.4	143.5
Singapore	\$m	34.2	38.1	25.3	32.3	26.7	51.8	52.8
Thailand	\$m	87.4	61.6	47.2	61.9	55.1	67.2	69.1
Other	\$m	103.6	136.0	142.5	174.0	159.8	257.5	290.5
Total	\$m	479.3	473.2	444.2	496.0	478.1	694.2	697.9
<b>Casein</b>								
Japan	\$m	9.0	6.5	5.3	5.3	9.2	12.8	14.4
United States	\$m	9.4	18.7	28.4	47.4	57.7	55.4	56.0
Other	\$m	11.8	7.7	9.5	13.8	13.8	21.3	6.5
Total	\$m	30.2	32.9	43.2	66.6	80.7	89.5	76.8
<b>Wholemilk powder</b>								
Malaysia	\$m	43.8	36.7	32.8	34.7	27.0	26.9	39.2
Singapore	\$m	13.0	13.3	9.2	15.2	15.7	31.7	29.7
Taiwan	\$m	33.2	29.3	21.9	42.1	49.2	54.9	54.1
Thailand	\$m	19.5	20.7	24.9	29.4	28.8	24.9	22.6
Other	\$m	145.2	168.1	186.3	242.7	282.8	441.8	425.5
Total	\$m	254.7	268.2	275.0	364.0	403.4	580.2	571.1
<b>Other products</b>								
Fresh milk	\$m	57.2	68.3	67.4	76.0	81.4	82.0	98.1
Other fresh products	\$m	13.2	18.4	21.7	18.2	20.2	12.7	7.9
Condensed milk	\$m	60.9	48.6	57.8	81.6	87.6	111.5	123.7
Other powders	\$m	81.0	97.1	116.2	117.4	158.7	192.6	275.1
Total	\$m	212.3	232.3	263.1	293.1	348.0	398.8	504.8

<sup>a</sup> Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Dairy products

### 69 Australian exports of dairy products, by destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Cheese</b>								
Japan	kt	58.3	60.2	70.1	73.6	84.9	84.6	103.2
Philippines	kt	6.4	6.0	6.8	6.6	5.4	5.5	5.2
Saudi Arabia	kt	12.3	10.0	12.3	12.6	14.6	16.3	17.4
United Kingdom	kt	4.0	6.9	3.1	5.7	6.8	9.8	4.3
United States	kt	5.3	6.8	7.3	8.0	8.3	9.4	10.8
Other	kt	33.1	38.6	53.7	68.7	99.7	93.2	77.1
Total	kt	119.4	128.5	153.4	175.2	219.8	218.8	218.1
<b>Butter and butterfat <sup>a</sup></b>								
Egypt	kt	4.7	10.6	5.5	12.2	17.0	14.5	10.7
Malaysia	kt	4.3	4.8	3.8	3.7	6.0	5.3	4.7
Philippines	kt	5.6	4.6	4.5	3.9	4.8	3.3	2.0
Singapore	kt	8.0	7.4	7.7	8.3	8.0	5.8	7.2
Thailand	kt	12.6	9.2	8.5	7.6	10.1	7.2	7.9
Other	kt	20.9	58.6	61.6	66.4	73.9	68.3	72.0
Total	kt	60.3	99.5	94.8	104.4	123.6	107.5	107.5
<b>Skim milk powder</b>								
Japan	kt	22.5	20.2	20.9	11.5	27.2	20.2	18.3
Malaysia	kt	24.7	29.2	30.1	32.8	36.1	25.9	25.3
Philippines	kt	41.9	47.5	41.0	57.4	47.0	51.1	41.4
Singapore	kt	12.7	16.4	10.7	15.4	12.4	15.1	16.4
Thailand	kt	29.2	24.2	19.0	27.0	24.4	18.2	21.8
Other	kt	37.5	54.6	56.4	76.0	71.1	72.1	87.0
Total	kt	168.5	192.2	178.0	220.1	218.2	202.6	210.2
<b>Casein</b>								
Japan	kt	1.3	1.0	1.2	1.0	1.2	1.2	1.2
United States	kt	1.3	3.6	5.1	9.1	9.6	5.8	6.5
Other	kt	0.8	1.0	2.6	2.8	2.8	3.0	0.8
Total	kt	3.4	5.7	9.0	12.9	13.6	10.0	8.5
<b>Wholemilk powder</b>								
Chinese Taipei	kt	9.6	9.6	7.7	14.8	17.8	14.4	13.2
Malaysia	kt	14.8	13.2	11.4	11.6	10.0	7.9	10.3
Singapore	kt	4.6	5.1	3.4	5.9	6.4	9.6	9.8
Thailand	kt	6.5	8.2	9.1	10.7	11.5	7.8	6.4
Other	kt	45.6	60.4	63.9	83.3	107.7	127.8	125.6
Total	kt	81.1	96.5	95.4	126.3	153.4	167.5	165.3
<b>Other products</b>								
Fresh milk	ML	69.4	79.8	75.1	81.7	86.1	83.1	86.9
Other fresh products	ML	6.2	9.3	8.6	6.1	5.2	3.1	1.4
Condensed milk	kt	52.5	44.6	51.6	62.4	68.9	62.6	71.5
Other powders	kt	28.1	34.5	36.2	38.2	53.6	48.6	67.3

<sup>a</sup> Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 70 Australian dairy cow numbers, by state <sup>a</sup>

	New South Wales '000	Victoria '000	Queensland '000	Western Australia '000	South Australia '000	Tasmania '000	Australia <sup>b</sup> '000
1965	719	1 187	689	113	159	143	3 214
1966	675	1 192	627	109	155	148	3 094
1967	668	1 211	599	103	149	149	3 061
1968	645	1 200	556	100	139	152	2 963
1969	604	1 209	497	97	139	153	2 866
1970	568	1 245	460	101	138	155	2 829
1971	527	1 244	441	96	138	153	2 745
1972	491	1 257	420	97	145	155	2 693
1973	465	1 274	390	98	141	155	2 647
1974	418	1 244	341	95	132	140	2 492
1975	387	1 269	329	91	135	144	2 477
1976	384	1 258	330	93	135	143	2 467
1977	373	1 167	312	84	120	128	2 279
1978	341	1 125	287	74	112	118	2 056
1979	320	1 047	265	72	105	110	1 921
1980	308	1 037	247	72	102	103	1 869
1981	289	1 024	236	71	100	99	1 819
1982	283	1 024	235	70	99	100	1 810
1983	293	998	234	69	98	98	1 792
1984	285	1 021	234	69	101	99	1 809
1985	274	1 036	229	69	102	98	1 809
1986	264	1 016	224	68	102	96	1 770
1987	270	997	223	67	102	96	1 757
1988	260	977	218	65	100	94	1 714
1989	258	990	210	64	94	92	1 709
1990	245	995	208	65	90	93	1 698
1991	230	1 000	199	66	89	97	1 682
1992	222	1 026	188	68	90	103	1 699
1993	222	1 033	189	70	93	107	1 716
1994	232	1 085	189	74	94	113	1 786
1995	230	1 113	189	73	97	119	1 821
1996	235	1 161	189	97	71	130	1 884
1997	245	1 229	194	71	101	137	1 977
1998	266	1 268	203	73	107	143	2 060
1999	282	1 340	196	65	117	154	2 155
2000	289	1 377	194	65	105	139	2 171
2001	270	1 360	187	72	132	155	2 176
2002	264	1 363	174	75	110	134	2 123

<sup>a</sup> Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of \$5 000 or more. From 2000, at 30 June. House cows and heifers are included before 1977-78, but excluded thereafter. Before 1986-87, includes livestock holdings on establishments with an EVAO of \$2 500 or more. <sup>b</sup> Includes data for the Australian Capital Territory and the Northern Territory.

Sources: ABS, *Principal Agricultural Commodities Australia*, cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra.



## Dairy products

### 71 Australian production of wholemilk, by state <sup>a</sup>

	New South Wales ML	Victoria ML	Queensland ML	Western Australia ML	South Australia ML	Tasmania ML	Australia <sup>b</sup> ML
1960-61	1 452	2 713	967	266	396	290	6 089
1961-62	1 567	2 869	1 097	265	434	333	6 563
1962-63	1 473	3 035	1 114	255	434	357	6 673
1963-64	1 466	3 159	1 090	260	443	378	6 803
1964-65	1 327	3 391	1 047	281	465	397	6 914
1965-66	1 367	3 414	1 005	281	447	400	6 919
1966-67	1 468	3 622	1 083	253	449	416	7 295
1967-68	1 410	3 338	987	252	404	413	6 808
1968-69	1 268	3 715	781	265	467	464	6 965
1969-70	1 413	4 028	870	254	483	469	7 523
1970-71	1 237	4 062	770	256	470	450	7 249
1971-72	1 171	3 973	768	255	458	451	7 079
1972-73	1 177	3 945	737	242	424	424	6 952
1973-74	1 069	3 917	665	241	439	422	6 756
1974-75	958	3 745	658	246	426	461	6 497
1975-76	980	3 518	683	233	398	436	6 248
1976-77	943	3 212	624	215	355	423	5 772
1977-78	891	3 263	559	209	339	360	5 621
1978-79	906	3 283	570	213	332	365	5 669
1979-80	907	3 151	508	222	329	315	5 432
1980-81	840	3 065	495	214	319	289	5 223
1981-82	875	3 028	546	209	306	294	5 258
1982-83	905	3 164	564	221	340	322	5 516
1983-84	940	3 400	619	232	382	340	5 913
1984-85	940	3 516	616	243	372	346	6 033
1985-86	904	3 575	600	243	365	351	6 038
1986-87	906	3 692	601	248	374	352	6 173
1987-88	932	3 649	617	249	377	306	6 130
1988-89	923	3 792	626	245	370	334	6 290
1989-90	879	3 787	629	267	356	343	6 263
1990-91	857	3 907	626	283	366	363	6 403
1991-92	894	4 119	635	302	411	372	6 732
1992-93	997	4 456	702	326	434	413	7 327
1993-94	1 098	4 968	764	344	456	447	8 077
1994-95	1 087	5 114	740	343	485	437	8 206
1995-96	1 115	5 482	751	342	512	514	8 716
1996-97	1 192	5 634	797	349	535	529	9 036
1997-98	1 242	5 866	822	387	580	543	9 439
1998-99	1 285	6 414	827	403	646	603	10 178
1999-00	1 395	6 870	848	714	412	609	10 847
2000-01	1 326	6 777	760	393	699	590	10 545
2001-02	1 343	7 405	744	393	715	672	11 271

<sup>a</sup> Before 1977-78, milk production includes an estimate of on-farm use. <sup>b</sup> Includes data for the Australian Capital Territory and estimates for the Northern Territory.

Source: Australian Dairy Corporation, *Monthly Statistics*, Melbourne.

## 72 Australian manufacture of dairy products

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Butter <sup>a</sup>	131.4	142.8	146.9	153.6	175.7	170.2	150.7	163.7
Cheese	241.3	272.5	290.0	310.4	327.2	373.4	375.5	430.5
Non-cheddar	90.6	98.1	113.9	121.5	140.6	157.1	163.0	192.1
Cheddar	150.7	174.4	176.1	188.9	186.6	216.3	212.5	238.4
Wholemilk powder	104.4	113.0	133.7	128.5	144.8	186.7	205.3	238.7
Skim milk powder <sup>b</sup>	197.5	215.0	223.3	215.1	255.2	246.6	244.2	244.3
Casein	6.5	5.7	5.4	8.8	7.5	9.0	8.0	11.7
Buttermilk powder	12.9	14.0	14.6	15.0	17.0	17.8	15.7	16.8

<sup>a</sup> Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat production. <sup>b</sup> Includes mixed skim milk powder and buttermilk powder.

Sources: Australian Dairy Corporation, *Monthly Statistics*, Melbourne; ABARE.

## 73 Australian consumption of dairy products

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
<b>Total consumption</b>								
Butter	kt	55.7	51.9	49.7	54.7	58.3	58.9	56.8
Margarine (table)	kt	95.7	98.7	86.6	82.0	82.0	83.0 <sup>s</sup>	83.0
Cheese <sup>a</sup>	kt	184.3	191.6	197.8	197.2	204.1	219.0	219.0
Australian	kt	156.5	158.4	165.8	166.0	167.0	181.8	181.8
Wholemilk powder	kt	16.4	20.0	24.0	15.5	18.2	15.0	14.0
Skim milk powder <sup>b</sup>	kt	39.4	40.9	43.2	33.9	35.0	37.0	37.0
Casein	kt	1.3	1.4	1.6	0.3	0.4	0.5	0.5
Market milk	ML	1 849	1 895	1 920	1 918	1 931	1 934	1 920
<b>Consumption per person</b>								
Butter	kg	3.1	2.8	2.8	2.9	2.9	3.1	2.9
Margarine (table)	kg	5.3	5.4	4.7	4.4	4.4	4.3	4.3
Cheese <sup>a</sup>	kg	10.3	10.5	10.9	10.9	10.7	11.4	11.3
Australian	kg	8.1	8.7	9.0	9.0	8.9	9.5	9.4
Wholemilk powder	kg	0.9	1.0	1.2	0.8	0.9	0.8	0.7
Skim milk powder <sup>b</sup>	kg	2.2	2.2	2.3	1.8	1.8	1.9	1.9
Market milk	L	102.9	104.2	104.2	103.0	102.4	101.2	99.3

<sup>a</sup> In natural equivalent weight. <sup>b</sup> Includes buttermilk powder and mixed skim milk powder. <sup>s</sup> ABARE estimate.

Sources: ABS, *Apparent Consumption of Foodstuffs, Australia*, cat. no. 4306.0, Canberra; ABS, *Apparent Consumption of Selected Foodstuffs, Australia*, cat. no. 4315.0, Canberra; Australian Dairy Corporation, *Dairy Compendium*, Melbourne; Australian Dairy Corporation, *Monthly Statistics*, Melbourne; Australian Dairy Corporation; ABARE.

## Dairy products

### 74 Australian milk prices and gross value of production

	Producer price <sup>a</sup>			Gross value of production		
	Manufacturing milk c/L	Market milk c/L	Weighted average c/L	Manufacturing milk \$m	Market milk \$m	Total \$m
1960-61	na	na	5.3	196	128	325
1961-62	na	na	5.1	205	132	337
1962-63	na	na	5.2	218	132	350
1963-64	na	na	5.4	228	139	367
1964-65	na	na	5.6	239	145	384
1965-66	4.3	9.3	5.5	225	127	352
1966-67	4.4	9.3	5.5	244	138	382
1967-68	4.2	9.4	5.4	208	143	351
1968-69	4.3	9.3	5.5	221	142	364
1969-70	4.3	9.6	5.5	241	149	390
1970-71	4.6	10.0	5.9	245	154	399
1971-72	5.2	10.6	6.5	273	156	429
1972-73	5.3	11.0	6.7	269	165	434
1973-74	5.3	11.8	7.0	260	177	437
1974-75	6.0	14.2	8.0	288	195	483
1975-76	5.5	16.1	8.1	239	214	454
1976-77	5.7	18.7	9.2	232	249	481
1977-78	7.3	17.2	9.9	241	266	507
1978-79	8.5	18.5	11.0	275	293	568
1979-80	9.7	20.0	12.5	287	320	607
1980-81	13.0	23.1	16.0	479	352	830
1981-82	15.4	26.2	18.6	559	419	979
1982-83	16.7	28.7	20.1	663	463	1 126
1983-84	15.7	29.8	19.4	656	497	1 153
1984-85	13.5	31.2	18.2	510	526	1 035
1985-86	14.7	32.8	19.6	580	527	1 107
1986-87	17.5	34.5	22.1	687	570	1 257
1987-88	19.3	36.2	23.9	805	586	1 391
1988-89	22.7	37.9	26.8	981	654	1 635
1989-90	18.3	39.7	28.6	1 059	691	1 749
1990-91 <sup>b</sup>	18.9	40.9	23.5	1 099	726	1 825
1991-92	19.7	43.2	24.5	1 204	756	1 960
1992-93	24.4	43.5	29.0	1 522	793	2 314
1993-94	23.0	46.2	28.2	1 620	829	2 448
1994-95	22.2	47.8	27.9	1 511	908	2 419
1995-96	26.0	49.9	31.1	1 898	951	2 848
1996-97	24.0	51.1	29.6	1 830	981	2 811
1997-98	23.9	52.0	29.4	1 840	977	2 817
1998-99	22.5	51.5	28.5	1 905	994	2 900
1999-00	22.0	52.3	26.2	1 834	1 011	2 845
2000-01	na <sup>c</sup>	na <sup>c</sup>	29.0	2 496	558	3 053
2001-02	na <sup>c</sup>	na <sup>c</sup>	30.3	2 837	578	3 415

<sup>a</sup> A slight series break occurs in 1977-78 as a result of a change in the method of valuation. <sup>b</sup> From 1990-91, manufacturing milk price is reported net of market support. <sup>c</sup> Since deregulation of farm gate milk prices from July 2000, manufacturing and market milk prices are no longer reported separately. **na** Not available.

Sources: ABS, *Value of Principal Agricultural Commodities Produced*, cat. no. 7501.0, Canberra; ABARE.

# 75 Average retail prices of selected dairy products, by quarter

	Milk <sup>a</sup>		Cheese <sup>b</sup>		Butter <sup>c</sup>	
	Sydney c/L	Melbourne c/L	Sydney c/kg	Melbourne c/kg	Sydney c/kg	Melbourne c/kg
<b>1994</b>						
March	101	103	744	704	328	360
June	102	104	724	698	324	368
September	104	106	726	694	344	364
December	105	108	718	674	348	340
<b>1995</b>						
March	107	111	732	682	312	336
June	108	113	712	674	312	328
September	110	116	714	696	320	344
December	111	117	720	716	340	368
<b>1996</b>						
March	113	120	688	724	336	364
June	113	121	732	746	348	388
September	114	125	754	698	360	404
December	115	126	742	700	372	406
<b>1997</b>						
March	115	130	792	718	364	408
June	115	130	772	714	376	398
September	116	130	756	720	370	412
December	116	133	722	710	348	412
<b>1998</b>						
March	116	135	760	714	366	410
June	116	135	742	674	374	408
September	116	135	722	724	374	422
December	116	135	778	716	362	410
<b>1999</b>						
March	122	139	786	720	380	412
June	122	140	762	730	372	418
September	122	140	776	702	384	422
December	129	142	762	710	380	432
<b>2000</b>						
March	131	146	764	742	372	432
June	135	150	768	698	374	428
September	133	147	686	656	378	426
December	133	146	704	740	386	452
<b>2001</b>						
March	135	145	734	698	390	446
June	135	145	726	706	434	466
September	138	146	732	752	456	430
December	144	152	848	836	468	440
<b>2002</b>						
March	145	154	820	780	458	436
June	147	153	740	738	480	472

<sup>a</sup> 1 litre carton, supermarket. <sup>b</sup> Based on a processed, sliced, wrapped, 500 gram pack. <sup>c</sup> Based on a 500 gram pack.  
Source: ABS, *Average Retail Prices of Selected Items*, cat. no. 6403.0, Canberra.

## Dairy products

### 76 Average export unit values of Australian dairy products <sup>a</sup>

	Butter <sup>b</sup> \$/t	Cheese \$/t	Skim milk powder \$/t	Wholemilk powder \$/t	Casein \$/t
1960-61	638.07	502.73	na	na	356.32
1961-62	598.03	458.15	na	na	333.33
1962-63	604.17	462.12	na	na	318.84
1963-64	618.22	477.03	na	na	317.65
1964-65	687.76	514.49	na	na	367.47
1965-66	668.60	533.60	na	na	517.77
1966-67	606.74	590.73	281.19	585.94	420.35
1967-68	583.85	518.84	240.51	619.47	488.10
1968-69	523.26	545.10	152.50	544.12	409.09
1969-70	511.70	480.39	156.60	496.73	399.34
1970-71	515.57	504.11	184.74	500.00	431.23
1971-72	792.54	672.67	331.74	630.87	557.05
1972-73	783.82	733.11	389.58	738.46	726.67
1973-74	694.86	760.53	416.58	766.82	741.46
1974-75	954.80	1 011.70	649.25	1 007.35	1 032.79
1975-76	835.74	1 117.46	464.70	1 041.67	1 012.99
1976-77	1 123.89	1 070.48	323.37	866.67	832.43
1977-78	1 279.88	1 258.50	389.36	1 037.92	1 022.22
1978-79	1 249.44	1 336.58	540.98	1 104.07	1 366.41
1979-80	1 595.04	1 545.01	577.24	1 100.29	1 842.86
1980-81	1 875.00	1 925.93	1 000.00	1 613.64	2 476.19
1981-82	2 714.29	2 157.89	896.55	1 906.98	2 391.30
1982-83	2 411.76	2 444.44	918.92	2 057.14	2 941.18
1983-84	1 870.97	2 611.11	885.25	2 071.43	2 500.00
1984-85	1 617.02	2 432.84	849.46	1 900.00	2 285.71
1985-86	1 591.84	2 515.15	987.34	1 937.50	2 800.00
1986-87	1 757.58	2 645.16	1 126.58	2 047.62	3 285.71
1987-88	1 634.15	2 735.29	1 382.35	2 243.24	3 875.00
1988-89	1 970.32	2 990.35	2 245.10	2 650.20	6 277.43
1989-90	2 420.90	3 460.80	2 340.85	2 852.70	5 648.35
1990-91	1 967.87	3 203.04	1 783.98	2 193.05	3 889.50
1991-92	2 177.05	3 316.42	1 953.08	2 431.63	4 663.18
1992-93	2 240.51	3 693.29	2 553.84	2 918.19	6 670.29
1993-94	2 196.56	3 750.07	2 232.74	2 603.09	16 322.78
1994-95	2 076.10	3 448.84	2 292.65	2 471.42	7 045.15
1995-96	2 992.85	3 880.56	2 845.11	3 141.29	8 956.43
1996-97	2 216.75	3 702.17	2 462.28	2 778.68	5 801.21
1997-98	2 512.67	3 954.53	2 495.26	2 882.43	4 828.54
1998-99	2 819.45	3 967.28	2 253.39	2 883.26	5 177.65
1999-00	2 350.18	3 670.02	2 191.42	2 629.23	5 941.28
2000-01	2 706.43	4 342.15	3 425.69	3 464.29	8 950.45
2001-02	2 766.57	4 738.11	3 320.31	3 454.24	9 031.70

<sup>a</sup> Fob. <sup>b</sup> Commercial butter equivalent. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

# 77 Australian imports of cheese, by variety

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Volume</b>	kt	kt	kt	kt	kt	kt	kt
<b>Processed</b>							
Cheddar	0.20	0.02	0.26	0.25	5.43	4.50	7.83
Emmenthaler	0.09	0.03	0.05	0.00	0.02	0.00	0.00
Gruyere	0.03	0.03	0.06	0.06	0.08	0.08	0.02
Other	3.99	4.34	5.36	8.28	6.90	8.87	3.29
<b>Natural</b>							
Blue vein	0.41	0.42	0.57	0.46	0.66	0.76	0.83
Camembert	0.51	0.54	0.54	0.38	0.32	0.36	0.21
Cheddar	13.14	11.34	10.44	10.90	10.92	13.47	15.91
Colby	0.49	0.74	0.23	0.71	1.18	1.47	1.79
Edam	1.41	1.34	1.01	0.97	0.75	0.75	1.00
Emmenthaler	0.25	0.27	0.25	0.17	0.13	0.18	0.15
Fetta	1.42	1.78	1.29	1.22	1.25	1.32	1.79
Gouda	0.57	1.02	0.85	0.74	0.51	0.44	0.59
Kasseri	0.16	0.19	0.19	0.18	0.15	0.12	0.14
Mozzarella	1.54	1.29	1.86	1.93	2.10	2.81	2.13
Parmesan	0.71	0.71	0.73	0.88	1.08	0.87	1.32
Provolone	0.30	0.22	0.26	0.27	0.26	0.34	0.31
Other	7.96	7.74	7.25	3.51	0.21	0.19	0.55
<b>Total</b>	<b>33.17</b>	<b>32.02</b>	<b>31.19</b>	<b>30.93</b>	<b>31.96</b>	<b>36.54</b>	<b>37.87</b>
<b>Unit value</b>	\$/kg	\$/kg	\$/kg	\$/kg	\$/kg	\$/kg	\$/kg
<b>Processed</b>							
Cheddar	1.65	4.08	5.30	3.29	3.91	3.83	3.89
Emmenthaler	4.71	5.30	5.55	0.00	4.87	7.84	0.00
Gruyere	6.18	6.28	5.63	6.48	6.69	7.63	7.41
Other	4.72	4.67	4.56	4.25	3.92	4.04	4.68
<b>Natural</b>							
Blue vein	7.06	7.70	9.89	10.69	10.42	10.21	11.13
Camembert	10.35	9.30	9.13	10.44	9.06	9.64	10.07
Cheddar	2.83	2.98	3.07	3.30	3.36	3.26	3.76
Colby	3.40	3.84	3.80	3.84	3.75	3.59	3.76
Edam	3.48	3.85	4.63	4.31	4.17	4.31	4.61
Emmenthaler	4.65	5.16	6.12	5.91	6.18	7.03	7.33
Fetta	4.97	4.30	5.33	6.17	5.39	6.43	5.50
Gouda	4.20	4.43	5.62	6.55	5.55	4.71	4.37
Kasseri	6.84	7.46	8.39	8.89	8.01	9.02	7.99
Mozzarella	2.67	2.77	2.86	3.49	3.36	3.53	3.72
Parmesan	10.74	10.12	10.24	10.63	9.67	9.62	8.53
Provolone	7.09	7.71	7.94	8.62	8.19	8.64	9.20
Other	4.71	4.71	5.15	5.44	6.15	6.46	5.16
<b>Average</b>	<b>4.06</b>	<b>4.21</b>	<b>4.53</b>	<b>4.52</b>	<b>4.19</b>	<b>4.13</b>	<b>4.41</b>

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

## Dairy products

### 78 Summary of world statistics for dairy products

	Production			Consumption		Exports <sup>a</sup>	
	Milk Mt	Butter kt	Cheese kt	Butter kt	Cheese kt	Butter kt	Cheese kt
1966	na	na	na	5 012	na	na	na
1967	na	5 125	na	4 959	na	659	na
1968	336	5 281	5 128	5 007	5 074	730	701
1969	335	5 060	5 291	4 919	5 306	718	689
1970	336	5 047	5 744	5 000	5 751	924	747
1971	338	5 035	6 117	4 959	6 031	814	796
1972	346	5 377	6 553	5 012	6 379	690	805
1973	353	5 548	6 779	5 529	6 719	1 086	907
1974	360	5 214	7 147	5 409	6 941	977	973
1975	361	5 513	7 210	5 457	7 088	886	962
1976	367	5 600	2 298	5 513	7 512	981	1 099
1977	372	5 944	7 822	5 669	7 855	1 003	1 161
1978	377	5 997	8 172	5 627	8 113	1 038	1 271
1979	381	6 011	8 519	5 755	8 363	1 287	1 410
1980	386	6 174	8 193	5 882	7 728	1 328	1 450
1981	386	6 070	8 423	5 806	7 944	1 297	1 534
1982	398	6 361	8 805	5 687	8 425	1 312	1 484
1983	413	6 892	9 012	6 023	8 614	1 197	1 502
1984	413	6 834	9 167	6 157	8 860	1 337	1 701
1985	419	6 817	9 473	6 233	9 092	1 400	1 720
1986	426	7 102	9 764	6 376	9 479	1 310	1 733
1987	426	6 622	10 065	6 717	9 814	1 820	1 774
1988	429	6 567	10 490	6 785	10 149	1 888	1 855
1989	435	6 719	10 748	6 327	10 418	1 427	1 832
1990	442	6 824	10 915	6 262	10 581	1 104	1 997
1991	429	5 667	10 939	5 252	10 617	706	2 039
1992 <sup>b</sup>	380	5 470	10 931	5 245	10 569	694	2 051
1993	378	5 493	10 895	5 169	10 550	718	864
1994	378	5 221	11 194	5 109	10 897	688	917
1995	381	5 173	11 345	4 954	11 028	675	969
1996	364	5 134	11 059	4 833	10 565	641	941
1997	366	5 073	11 388	4 863	11 121	745	1 010
1998	368	5 216	11 562	4 910	11 208	625	974
1999	372	5 361	11 823	4 988	11 490	591	996
2000	376	5 561	12 259	5 175	11 748	638	1 029
2001	376	5 662	12 444	5 402	11 951	630	1 064

<sup>a</sup> Includes intra-EU trade up to and including 1993. <sup>b</sup> For years up to and including 1991, includes data for 38 selected major countries; from 1992, includes data for 31 major countries. **na** Not available.

Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular*, Washington DC.

## 79 Milk production in selected regions and countries

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
Americas							
North America (incl. Mexico)	85 759	85 333	86 752	87 939	90 848	93 470	92 603
Canada	7 920	7 890	8 100	8 200	8 164	8 161	8 106
United States	70 440	69 857	70 802	71 373	73 807	76 004	74 996
South America	30 745	32 292	33 772	35 459	36 492	36 394	36 680
Asia							
China	5 764	6 296	6 674	6 620	7 176	8 274	8 660
India	32 500	33 500	34 500	35 500	36 000	36 250	36 400
Japan	8 382	8 657	8 642	8 573	8 457	8 497	8 302
Europe	125 676	125 425	117 685	117 603	119 058	118 740	118 495
European Union <sup>a</sup>	121 740	121 569	113 818	113 753	115 218	114 900	114 655
Belgium–Luxembourg	3 645	3 681	3 660	3 460	3 455	3 455	3 455
Denmark	4 673	4 695	4 633	4 668	4 656	4 724	4 669
France	25 413	25 083	24 893	24 793	24 892	24 843	24 890
Germany	28 621	28 776	28 702	28 378	28 400	28 300	28 300
Greece	738	755	750	750	750	750	750
Ireland	5 655	5 677	5 547	5 370	5 408	5 491	5 416
Italy	10 500	10 800	10 818	10 736	10 444	10 350	10 350
Netherlands	11 294	11 013	10 922	11 000	11 174	10 950	10 200
Portugal	1 669	1 731	1 770	1 750	1 750	1 750	1 750
Spain	6 000	5 900	5 700	5 600	5 844	6 050	6 250
United Kingdom	14 700	14 672	14 841	14 640	15 021	14 471	13 747
Russian Federation	39 300	35 800	34 100	33 000	32 000	31 900	33 000
Ukraine	17 181	16 000	13 650	13 800	13 140	12 200	12 000
Other Eastern Europe <sup>b</sup>	17 305	17 178	17 370	17 660	17 025	17 635	17 635
Other Western Europe <sup>c</sup>	3 936	3 856	3 867	3 850	3 840	3 840	3 840
Oceania	18 117	19 362	20 774	21 362	21 553	24 007	25 103
Australia <sup>d</sup>	8 433	8 957	9 274	9 722	10 483	11 172	11 398
New Zealand <sup>e</sup>	9 684	10 405	11 500	11 640	11 070	12 835	13 705
Total <sup>f</sup>	380 729	364 353	365 593	368 429	372 037	2375 882	376 285

<sup>a</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>b</sup> Includes only Poland and Romania. <sup>c</sup> In 1993 and 1994, includes Austria, Finland, Sweden and Switzerland; from 1995, includes only Switzerland. <sup>d</sup> Year ended 30 June. <sup>e</sup> Year ended 31 May. <sup>f</sup> Includes 31 major producing countries.

Source: US Department of Agriculture, *Dairy: World Markets and Trade*, Foreign Agriculture Circular, Washington DC.



## Dairy products

### 80 Production of dairy products in selected regions and countries

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Butter</b>								
Australia abc	143	131	143	147	154	176	170	151
Europe								
Russian Federation	488	419	290	280	270	260	265	270
Ukraine	254	219	163	109	113	108	135	160
European Union d	1 605	1 750	1 752	1 730	1 721	1 731	1 700	1 671
Other Western Europe e	169	42	40	39	40	39	39	39
Other Eastern Europe	173	179	173	189	192	190	193	193
India	1 200	1 300	1 400	1 470	1 600	1 750	1 950	2 250
Japan f	80	78	86	87	89	86	88	80
New Zealand bcg	297	280	309	307	343	316	344	352
South America	103	116	122	121	118	124	124	125
United States	588	573	533	522	530	579	570	561
Total	5 100	5 087	5 011	5 001	5 170	5 359	5 578	5 852
<b>Cheese</b>								
Australia a	234	241	272	290	310	327	373	376
Europe								
Russian Federation	285	217	173	165	170	185	220	260
Ukraine	105	72	60	45	52	53	67	100
European Union d	5 148	5 596	5 220	5 557	5 666	5 810	5 962	6 044
Other Western Europe	434	131	133	136	140	140	140	140
Other Eastern Europe	220	213	225	253	258	250	237	240
Japan g	30	31	33	34	35	35	34	33
New Zealand h	192	197	230	240	266	245	297	281
South America	789	806	852	890	894	940	952	957
United States	3 054	3 138	3 274	3 325	3 398	3 581	3 746	3 687
Total	11 194	11 345	11 059	11 608	11 891	12 270	12 755	12 844
<b>Skim milk powder</b>								
Australia a	207	197	215	223	215	255	247	244
Europe								
Russian Federation	210	190	170	170	170	130	125	130
Ukraine	40	35	30	26	32	32	61	82
European Union d	1 116	1 193	1 195	1 146	1 092	1 108	1 079	940
Other Western Europe	96	24	24	22	21	18	18	18
Other Eastern Europe	112	128	120	120	122	124	125	125
India	95	100	105	110	120	130	150	175
Japan	184	190	200	200	202	192	194	175
New Zealand h	168	178	202	211	215	203	197	227
South America	81	106	132	146	146	157	160	186
United States	558	559	482	552	515	617	659	641
Total	2 994	3 073	3 116	3 178	3 130	3 225	3 234	2 906

a Year ended 30 June. b Includes butter anhydrous milk fat and ghee. c Factory production only. d Regarded as twelve countries until 1 January 1995, then fifteen countries. e From 1992 to 1994 includes Austria, Finland, Sweden and Switzerland; from 1995, includes only Switzerland. f Year ended 31 March. g Year ended 31 May. h Includes imported unprocessed cheese which is blended with domestically produced cheese.

Sources: Australian Dairy Corporation, *Monthly Statistics*, Melbourne; Agriculture and Livestock Industries Corporation, *Monthly Statistics*, Tokyo; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture*, Wellington; US Department of Agriculture, *Dairy: World Markets and Trade*, *Foreign Agriculture Circular*, Washington DC; ABARE.

# 81 Exports of dairy products, by selected countries

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Butter</b>								
Australia <b>ab</b>	83	77	60	99	95	104	124	108
European Union <b>c</b>								
Net exports <b>d</b>	158	187	176	219	168	161	176	166
New Zealand <b>ab</b>	256	234	238	315	315	279	338	347
Russian Federation	7	5	5	6	6	3	3	3
Ukraine	23	69	95	59	10	8	31	46
United States	94	64	19	18	3	2	4	0
<b>Cheese</b>								
Australia <b>a</b>	99	116	119	128	153	175	220	219
European Union <b>c</b>								
Net exports <b>d</b>	511	549	522	481	419	376	436	446
New Zealand <b>ab</b>	138	169	173	236	232	240	253	267
Switzerland	59	64	57	61	63	58	60	60
<b>Skim milk powder</b>								
Australia <b>a</b>	165	174	168	192	178	220	218	203
Canada	33	44	33	30	34	41	32	46
European Union <b>c</b>								
Net exports <b>d</b>	154	387	231	283	175	272	358	140
New Zealand <b>ae</b>	151	167	150	215	197	205	175	195
United States	123	164	32	117	104	217	142	96

**a** Year ended 30 June. **b** Includes butter, anhydrous milk fat and ghee. **c** Regarded as twelve countries until 1 January 1995, then fifteen countries. **d** Excludes intra-EU trade. **e** Skim milk and buttermilk powder.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture*, Wellington; US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular*, Washington DC; ABARE.

## Dairy products

### 82 Imports of dairy products, by selected countries

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Butter</b>								
European Union <sup>a</sup>	74	78	87	88	95	105	104	112
Japan	1	1	1	1	1	0	0	0
Poland	3	0	0	5	1	8	11	3
Russian Federation	151	241	113	250	150	55	60	102
Switzerland	3	3	3	5	4	5	5	5
Ukraine	10	5	1	3	0	3	1	1
<b>Cheese</b>								
Canada	21	21	23	23	23	25	29	27
European Union <sup>a</sup>	112	99	90	109	124	142	144	168
Japan	143	157	164	171	184	187	205	202
United States	151	153	152	141	156	195	186	198
<b>Skim milk powder</b>								
European Union <sup>a</sup>	50	46	68	73	66	73	78	82
India	1	2	0	0	1	18	17	2
Japan	86	103	75	74	57	57	52	53
Mexico	200	180	127	133	93	123	117	140
Peru	10	6	9	10	11	13	13	13

<sup>a</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. Excludes intra-EU trade.

Sources: US Department of Agriculture, *Dairy: World Markets and Trade*, *Foreign Agriculture Circular*, Washington DC.

## 83 Stocks of dairy products in principal producing countries

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Butter</b>								
Australia <sup>a</sup>	17	9	33	20	16	21	14	12
Canada	8	14	13	15	9	14	15	23
European Union <sup>b</sup>	192	164	214	191	272	295	306	296
New Zealand <sup>c</sup>	117	109	126	88	86	93	72	50
United States	36	9	6	10	12	11	11	25
Total	370	459	472	418	493	544	542	512
<b>Cheese</b>								
Australia <sup>a</sup>	80	90	103	93	88	77	65	62
Canada	46	39	39	44	44	42	53	48
European Union <sup>b</sup>	1 236	1 360	1 416	1 290	1 164	1 148	1 131	1 170
New Zealand <sup>c</sup>	43	42	69	41	41	13	34	25
United States	198	187	221	218	235	282	322	301
Total	1 603	1 718	1 848	1 933	1 932	1 903	1 839	1 667
<b>Skim milk powder</b>								
Australia <sup>a</sup>	40	20	40	31	29	19	2	12
Canada	10	12	7	13	12	6	17	19
European Union <sup>b</sup>	151	93	205	227	326	280	154	196
New Zealand <sup>c</sup>	33	34	75	60	67	54	71	98
United States	59	39	32	57	69	113	288	408
Total	446	394	543	595	693	667	779	993

<sup>a</sup> Year ending 30 June. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>c</sup> Year ending 31 May.

Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular*, Washington DC.

## Farm inputs

### 84 Major components of Australian farm costs

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Materials and services</b>								
Fuel	935	946	911	1 010	1 123	1 060	1 107	1 091
Fertiliser	803	915	1 016	1 095	941	1 024	1 065	1 244
Chemicals	564	703	809	916	866	924	993	1 059
Seed and fodder	1 587	1 838	1 981	2 233	2 354	2 600	2 396	2 437
Marketing	1 748	1 746	1 910	2 041	2 093	2 059	2 268	2 306
Repairs and maintenance	1 140	1 380	1 608	1 742	1 572	1 522	1 580	1 706
Other	1 759	2 112	2 330	2 550	3 142 <sup>a</sup>	2 606	2 591	2 828
<b>Total</b>	<b>8 536</b>	<b>9 640</b>	<b>10 565</b>	<b>11 587</b>	<b>12 091</b>	<b>11 795</b>	<b>12 000</b>	<b>12 671</b>
<b>Other costs</b>								
Wages	1 737	1 996	2 346	2 545	2 352	2 230	2 284	2 445
Interest paid	1 960	1 798	2 118	2 595	2 462	2 220	1 838	1 695
Other overheads	288	299	301	331	315	276	303	337
<b>Total</b>	<b>3 985</b>	<b>4 093</b>	<b>4 765</b>	<b>5 471</b>	<b>5 129</b>	<b>4 726</b>	<b>4 425</b>	<b>4 477</b>
<b>Total cash costs</b>	<b>12 521</b>	<b>13 733</b>	<b>15 330</b>	<b>17 058</b>	<b>17 220</b>	<b>16 521</b>	<b>16 425</b>	<b>17 148</b>
<b>Depreciation</b>	<b>2 865</b>	<b>2 993</b>	<b>3 065</b>	<b>2 950</b>	<b>2 947</b>	<b>2 871</b>	<b>2 915</b>	<b>3 039</b>
<b>Total farm costs</b>	<b>15 386</b>	<b>16 726</b>	<b>18 395</b>	<b>20 008</b>	<b>20 167</b>	<b>19 392</b>	<b>19 340</b>	<b>20 187</b>
	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02 <sup>s</sup>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Materials and services</b>								
Fuel	1 120	1 188	1 236	1 253	1 230	1 450	1 670	1 581
Fertiliser	1 378	1 651	1 760	1 828	1 905	1 840	1 920	1 980
Chemicals	1 139	1 349	1 480	1 520	1 584	1 620	1 680	1 760
Seed and fodder	3 131	2 928	2 801	2 998	2 947	2 900	3 320	3 560
Marketing	1 955	2 519	2 923	2 712	2 907	3 150	3 226	3 440
Repairs and maintenance	1 768	1 920	2 003	2 022	2 070	2 210	2 390	2 680
Other	3 064	2 937	2 954	2 961	3 003	3 080	3 295	3 520
<b>Total</b>	<b>13 555</b>	<b>14 492</b>	<b>15 157</b>	<b>15 295</b>	<b>15 645</b>	<b>16 250</b>	<b>17 501</b>	<b>18 521</b>
<b>Other costs</b>								
Wages	2 550	2 679	2 919	3 006	3 136	3 250	3 360	3 580
Interest paid	2 069	2 182	2 115	1 962	1 917	2 014	2 250	2 095
Other overheads	344	356	360	360	364	372	389	404
<b>Total</b>	<b>4 963</b>	<b>5 217</b>	<b>5 395</b>	<b>5 329</b>	<b>5 417</b>	<b>5 636</b>	<b>5 999</b>	<b>6 079</b>
<b>Total cash costs</b>	<b>18 518</b>	<b>19 710</b>	<b>20 551</b>	<b>20 624</b>	<b>21 063</b>	<b>21 886</b>	<b>23 500</b>	<b>24 600</b>
<b>Depreciation</b>	<b>3 073</b>	<b>3 169</b>	<b>3 256</b>	<b>3 306</b>	<b>3 440</b>	<b>3 535</b>	<b>3 645</b>	<b>3 751</b>
<b>Total farm costs</b>	<b>21 591</b>	<b>22 879</b>	<b>23 808</b>	<b>23 930</b>	<b>24 503</b>	<b>25 421</b>	<b>27 145</b>	<b>28 351</b>

<sup>a</sup> The large increase in 1990-91 was caused by the sharp rise in the wool tax. <sup>s</sup> ABARE estimate.

Sources: ABS, *Australian National Accounts, National Income and Expenditure*, cat. no. 5204.0, Canberra; ABS, *Australian National Accounts, National Income and Expenditure, Australia*, cat. no. 5206.0, Canberra; ABARE.

# 85 Indexes of prices paid by farmers in Australia

	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93
<b>Materials and services</b>									
Seed, fodder and livestock									
Seed, seedlings and plants	61.0	63.3	67.4	72.0	80.6	82.3	82.5	85.3	87.6
Fodder and feedstuffs	62.2	62.2	63.9	68.9	76.6	79.0	75.5	80.5	78.5
Store and breeding stock	67.7	64.2	73.0	83.0	92.3	88.6	82.0	79.7	78.8
Total	62.6	61.5	66.3	73.4	81.6	81.7	77.6	80.5	79.0
Fertiliser	62.2	68.3	67.0	68.3	76.9	82.4	85.0	90.3	88.7
Chemicals and medicines	76.7	84.3	89.4	89.4	91.2	93.2	96.4	97.5	98.0
Fuel and lubricants	84.2	86.9	86.0	88.7	80.4	91.6	106.0	99.6	104.1
Electricity	76.3	78.2	81.5	86.3	90.4	93.4	96.7	100.4	101.8
Maintenance									
Plant and equipment	47.3	52.5	58.7	63.9	67.7	72.9	79.3	83.6	86.7
Structures	59.1	62.5	66.7	69.2	73.8	79.8	84.9	87.5	89.4
Total	50.9	55.6	61.2	65.5	69.6	75.0	81.0	84.8	87.5
Contracts	65.1	67.4	69.1	71.4	76.4	81.0	86.5	90.0	92.8
Other materials and services	57.9	62.5	68.9	74.0	79.4	85.7	90.2	91.2	92.4
Total	63.6	66.6	70.1	74.6	79.5	83.2	85.3	87.4	87.8
<b>Labor</b>	60.0	63.0	65.6	68.5	73.5	78.9	82.7	86.5	89.7
<b>Marketing</b>									
Freight outwards	73.0	78.1	82.2	84.2	87.5	90.9	95.5	96.9	97.9
Selling expenses	62.4	65.7	70.0	74.8	83.0	85.5	85.7	86.9	86.7
Total	64.5	68.4	72.6	76.5	83.8	86.4	87.4	88.7	88.7
<b>Overheads</b>									
Interest paid	98.0	130.1	147.0	133.9	169.6	199.9	170.3	139.6	107.4
Rates and taxes	52.2	57.9	62.6	67.1	73.2	80.4	87.4	89.3	91.5
Insurance	50.6	46.9	51.3	50.6	53.7	62.0	64.8	64.2	67.0
Other overheads	56.0	60.7	66.4	71.2	75.6	80.6	85.2	92.3	94.1
Total	73.9	85.8	94.9	93.7	110.5	126.5	119.9	109.4	96.7
<b>Capital items</b>									
Plant and equipment	54.0	59.9	67.0	73.0	77.0	80.5	82.3	83.9	87.4
Structures	60.4	63.8	68.1	70.7	75.5	81.9	87.5	89.5	91.7
Total	54.5	60.2	67.0	72.7	76.8	80.7	83.0	84.6	88.0
<b>Total prices paid</b>	63.4	68.3	74.2	77.4	84.3	90.1	90.8	90.7	89.5
Excluding capital items	65.6	70.1	74.5	77.9	85.2	91.2	91.8	91.5	89.7
Excluding capital and overheads	63.0	66.1	69.6	73.7	79.0	82.9	85.1	87.4	88.2
Excluding seed, fodder and store and breeding stock	64.2	70.0	75.7	78.3	85.0	92.0	94.0	93.1	91.9

Continued

## Farm inputs

### 85 Indexes of prices paid by farmers in Australia *(continued)*

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Materials and services</b>									
Seed, fodder and livestock									
Seed, seedlings and plants	88.9	95.7	101.1	99.2	100.0	100.6	102.7	105.2	115.8
Fodder and feedstuffs	79.9	92.2	101.4	98.9	100.0	91.9	90.0	93.6	99.2
Store and breeding stock	95.0	96.7	96.1	89.4	100.0	100.9	105.0	126.0	145.3
Total	85.0	93.8	100.0	96.4	100.0	94.7	94.9	102.5	111.6
Fertiliser	87.1	89.6	98.2	99.2	100.0	102.7	98.6	106.4	104.3
Chemicals and medicines	97.2	97.9	98.1	99.0	100.0	100.4	101.6	103.3	105.6
Fuel and lubricants	100.5	96.6	100.4	104.9	100.0	95.2	115.5	138.6	131.2
Electricity	100.9	98.3	97.7	99.4	100.0	100.7	102.9	108.5	110.5
Maintenance									
Plant and equipment	89.9	92.5	95.3	97.6	100.0	102.3	106.1	112.0	115.2
Structures	91.0	92.5	94.6	95.4	100.0	102.8	104.6	109.3	112.5
Total	90.2	92.5	95.1	96.9	100.0	102.3	105.6	111.1	114.3
Contracts	95.6	97.3	98.4	99.6	100.0	104.3	107.9	114.4	117.7
Other materials and services	94.1	96.8	100.1	100.0	100.0	102.3	104.2	108.9	112.1
Total	90.2	94.1	98.7	98.6	100.0	98.8	101.4	109.1	112.4
<b>Labor</b>	91.0	92.3	95.1	97.0	100.0	103.7	107.1	110.1	113.3
<b>Marketing</b>									
Freight outwards	98.5	98.5	98.5	98.6	100.0	100.3	102.5	107.0	110.1
Selling expenses	89.3	91.7	95.6	95.5	100.0	102.8	105.2	109.3	112.5
Total	91.0	92.9	96.2	96.1	100.0	102.7	105.0	109.3	112.4
<b>Overheads</b>									
Interest paid	100.2	113.2	127.9	117.0	100.0	90.6	98.8	111.2	104.2
Rates and taxes	92.0	94.2	92.2	95.6	100.0	102.1	107.1	112.4	115.5
Insurance	71.3	74.3	90.8	98.1	100.0	102.8	105.1	109.8	118.6
Other overheads	95.7	96.8	99.2	100.5	100.0	103.1	104.1	108.7	111.9
Total	94.5	101.4	109.2	106.4	100.0	96.5	102.5	111.3	109.7
<b>Capital items</b>									
Plant and equipment	91.7	94.3	97.3	99.0	100.0	103.3	106.6	112.7	116.0
Structures	93.4	94.8	95.8	96.7	100.0	101.7	103.8	108.9	112.0
Total	91.9	94.4	97.1	98.7	100.0	103.0	106.1	111.9	115.2
<b>Total prices paid</b>	91.1	94.9	99.4	99.3	100.0	100.0	103.3	110.0	112.5
Excluding capital items	91.0	95.0	99.8	99.4	100.0	99.5	102.8	109.6	112.0
Excluding capital and overheads	90.4	93.6	97.7	97.9	100.0	100.2	102.9	109.3	112.5
Excluding seed, fodder and store and breeding stock	92.5	95.1	99.3	99.9	100.0	101.0	104.9	111.5	112.6

*Note:* ABARE revised the method for calculating these indexes in October 1999. The indexes for the different groups of farm cost items are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

*Source:* ABARE.

# 86 Indicative interest rates for the Australian farm sector

	Australian broadacre farms <sup>a</sup> %	Major trading banks	
		Overdrafts for small businesses <sup>bc</sup> %	90 day bank bills <sup>b</sup> %
1971		na	8.15
1972		na	5.75
1973		na	6.40
1974		na	8.80
1975		na	8.80
1976		10.25	10.45
1977		10.25	11.10
1978		10.25	10.80
1979	8.88	9.75	10.35
1980	9.24	10.25	13.85
1981	10.09	12.00	16.00
1982	11.48	14.50	18.75
1983	11.35	13.60	13.60
1984	12.02	13.60	12.80
1985	12.48	15.00	16.50
1986	15.45	17.40	14.80
1987	15.56	16.85	13.35
1988	13.86	15.25	13.15
1989	14.28	19.75	18.30
1990	16.67	18.70	15.05
1991	14.12	14.35	10.45
1992	12.02	10.90	6.40
1993	9.67	9.75	5.25
1994	9.29	9.30	5.45
1995	9.67	11.10	7.55
1996	10.43	11.25	7.57
1997	9.30	9.50	5.35
1998	8.20	7.70	5.32
1999	7.40	7.45	4.93
2000	7.80	8.85	6.23
2001	8.60	8.00	4.97
2002	8.01	8.00	5.07

<sup>a</sup> Estimated average rate paid by all broadacre farms on all farm business debt for the year ended 30 June. <sup>b</sup> At 30 June. <sup>c</sup> Refers to the midpoint of a range of rates which apply to the lowest risk borrowers for a range of banks. In practice many borrowers pay an additional risk margin. **na** Not available.

Sources: Reserve Bank of Australia, *Bulletin*, Sydney; ABARE.



## Farm inputs

### 87 Farm indebtedness to financial institutions <sup>a</sup>

	All banks <sup>b</sup>	Other government agencies <sup>c</sup>	Finance companies		Other farm debt <sup>d</sup>	Total farm debt
	\$m	\$m	Pastoral \$m	Other \$m	\$m	\$m
1980	na	na	321	273	na	na
1981	na	na	315	329	na	na
1982	na	na	366	334	na	na
1983	na	na	364	438	na	na
1984	na	na	488	450	na	na
1985	na	na	577	535	na	na
1986	na	na	717	622	na	na
1987	na	na	704	641	na	na
1988	7 738	1 530	544	651	1 250	11 713
1989	8 802	1 620	714	789	1 350	13 275
1990	10 161	1 690	402	1 121	1 410	14 784
1991	10 662	1 730	487	1 131	1 436	15 446
1992	11 345	1 856	467	912	1 460	16 040
1993	12 250	1 879	346	695	1 580	16 750
1994	12 410	1 909	366	785	1 631	17 101
1995	13 065	1 872	398	970	1 690	17 995
1996	14 753	746	376	1 343	1 792	19 010
1997	15 720	696	486	1 579	1 760	20 241
1998	16 680	603	625	1 354	1 810	21 072
1999	17 931	597	476	617	1 852	21 473
2000	20 739	670	630	1 897	1 901	25 837
2001	22 344	722	641	1 998	1 920	27 625

<sup>a</sup> This table is based largely on data from the Reserve Bank of Australia and contains some modifications to table 87, *Australian Commodity Statistics 1997*, as a result of changes to data collection by the bank. The farm sector is defined as enterprises covered by ANZSIC (1994) agricultural categories 011–021. Credit outstanding in June of year indicated. <sup>b</sup> Derived from all banks lending to agriculture, fishing and forestry less the fishing and forestry component, which is estimated to be around 6 per cent of that total in 1997. <sup>c</sup> Includes the government agency business of state banks and advances made under War Service Land Settlement. Before 1996, includes loans from the Queensland Industry Development Corporation. From 1996, these loans are included in bank lending. <sup>d</sup> Includes loans from life insurance companies, lease agreements and indebtedness to hire purchase companies, trade creditors, private lenders and small financial institutions. **na** Not available.  
 Sources: Reserve Bank of Australia; ABARE.

# 88 Australian tractor sales, by type

	By power segment <sup>a</sup>				By wheel drive type			
	Under 30 kW no.	30–75 kW no.	75–150 kW no.	Over 150 kW no.	2WD <sup>b</sup> no.	4UWD <sup>c</sup> no.	4EWD <sup>d</sup> no.	Total no.
1980	1 509	9 815	2 857	425	na	na	na	14 606
1981	1 926	9 993	2 788	761	na	na	na	15 468
1982	1 735	8 021	2 447	614	8 113	3 918	786	12 817
1983	1 750	7 477	2 239	478	6 382	4 514	1 048	11 944
1984	2 368	7 610	2 379	677	6 168	5 638	1 228	13 034
1985	2 168	7 274	2 064	687	5 007	6 004	1 182	12 193
1986	1 779	4 797	924	156	2 953	4 318	385	7 656
1987	1 610	4 469	1 029	168	2 756	4 202	318	7 276
1988	1 971	5 371	1 057	167	2 888	5 327	351	8 566
1989	2 540	6 658	1 363	223	3 006	7 392	386	10 784
1990	2 148	5 513	1 267	328	2 410	6 418	428	9 256
1991	1 470	3 304	659	148	1 407	4 010	164	5 581
1992	1 335	3 328	917	218	1 330	4 207	261	5 798
1993	1 254	3 499	997	347	1 308	4 429	360	6 097
1994	1 126	4 250	1 248	466	1 239	5 430	423	7 092
1995	1 009	4 104	1 399	597	1 034	5 663	412	7 109
1996	1 091	4 304	1 773	1 051	916	6 508	792	8 216
1997	1 137	4 196	1 990	1 451	827	6 908	1 039	8 774
1998	1 025	4 110	1 990	1 402	628	6 625	1 274	8 527
1999	1 116	4 208	1 490	1 137	539	6 657	754	7 950
2000	1 117	3 389	1 056	929	413	5 535	543	6 491
2001	1 144	4 340	1 080	820	430	6 451	503	7 384
<b>1999 quarter</b>								
March	290	927	368	385	124	1 572	274	1 970
June	285	1 183	500	363	146	1 940	245	2 331
September	251	1 100	312	203	136	1 613	117	1 866
December	290	998	310	186	133	1 532	118	1 783
<b>2000 quarter</b>								
March	251	834	294	278	125	1 333	199	1 657
June	313	1 012	416	396	122	1 780	235	2 137
September	242	692	174	114	74	1 099	49	1 222
December	311	851	172	141	92	1 323	60	1 475
<b>2001 quarter</b>								
March	273	792	217	244	106	1 259	161	1 526
June	321	1 228	353	315	110	1 901	206	2 217
September	245	923	190	97	91	1 314	50	1 455
December	305	1 397	320	164	123	1 977	86	2 186
<b>2002 quarter</b>								
March	282	1 147	345	289	112	1 763	188	2 063
June	287	1 345	461	387	135	2 119	226	2 480
September	269	979	249	107	71	1 484	49	1 604

<sup>a</sup> Tractor power ratings refer to power takeoff, power in kilowatts. <sup>b</sup> Two wheel drive. <sup>c</sup> Four unequal diameter wheel drive. <sup>d</sup> Four equal diameter wheel drive. **na** Not available.

Source: Tractor and Machinery Association of Australia, Melbourne.

## Farm inputs

### 89 Australian trade in selected farm machinery

	Imports <sup>a</sup>				Exports			
	Tractors \$'000	Tillage machinery \$'000	Harvesting/ haymaking machinery \$'000	Seeding machinery \$'000	Tractors \$'000	Tillage machinery \$'000	Harvesting/ haymaking machinery \$'000	Seeding machinery \$'000
1971-72	22 081	541	1 859	196	513	2 120	4 696	256
1972-73	36 711	466	4 346	289	662	2 550	8 260	1 030
1973-74	41 606	1 008	9 495	572	411	3 016	9 453	1 111
1974-75	84 148	2 787	21 815	674	790	6 975	15 628	2 247
1975-76	116 290	3 215	21 164	665	2 440	5 889	12 080	626
1976-77	149 663	8 275	38 867	1 177	946	3 314	16 954	747
1977-78	110 697	8 338	46 932	1 744	1 165	4 775	8 888	2 293
1978-79	111 518	7 991	37 021	1 759	2 064	2 178	10 431	873
1979-80	169 008	10 472	62 964	2 316	3 742	2 578	12 268	1 481
1980-81	198 398	11 206	83 650	3 847	8 053	3 733	24 308	9 009
1981-82	260 771	14 252	89 061	3 362	6 638	6 224	12 897	4 002
1982-83	149 386	8 558	52 568	2 529	7 852	2 157	11 357	2 036
1983-84	174 936	10 585	109 281	3 516	4 804	1 935	4 764	2 236
1984-85	241 827	16 372	119 629	4 074	2 201	1 215	6 635	2 578
1985-86	198 476	9 822	68 493	3 555	7 352	1 268	13 745	5 945
1986-87	58 178	4 333	22 588	1 969	5 255	767	8 660	1 333
1987-88	124 132	7 528	39 628	4 189	2 892	1 214	18 183	609
1988-89	231 995	13 269	76 583	5 567	1 096	1 614	8 036	406
1989-90	268 895	22 090	96 195	5 913	1 301	1 107	12 059	886
1990-91	101 532	11 881	64 362	4 045	1 711	2 347	6 832	296
1991-92	91 061	8 631	43 394	4 002	890	2 446	11 295	841
1992-93	178 920	13 291	72 578	5 011	1 306	1 946	17 896	1 069
1993-94	245 154	15 220	118 227	6 835	1 112	2 704	31 541	782
1994-95	312 964	17 534	142 110	10 342	1 551	1 664	32 451	1 517
1995-96	366 038	25 448	170 307	14 505	1 524	2 896	43 088	1 504
1996-97	454 201	29 511	253 428	22 501	1 192	2 498	32 400	1 906
1997-98	512 157	30 278	243 655	30 525	995	1 391	33 946	1 269
1998-99	515 845	30 345	241 217	24 967	1 261	2 439	31 099	1 074
1999-00	416 136	30 127	229 839	24 214	1 223	2 666	29 748	402
2000-01	376 921	20 521	228 927	19 085	2 591	4 712	22 866	1 206
2001-02	477 563	25 789	161 079	29 197	4 416	2 211	44 996	1 144

<sup>a</sup> Fob at the port of origin.

Sources: ABS, *International Trade, Australia, Part 1: Exports and Imports*, cat. no. 5409.0, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 90 Australian fertiliser prices, by type <sup>a</sup>

	Single superphosphate <sup>b</sup> \$/t	Diammonium phosphate <sup>b</sup> \$/t	Ammonium sulphate <sup>c</sup> \$/t	Potassium chloride <sup>c</sup> \$/t	Urea <sup>c</sup> \$/t	Index of prices paid for fertiliser <sup>d</sup>
1970	na	na	na	na	na	9.4
1971	16.18	na	40.41	69.10	79.24	11.6
1972	16.87	na	40.09	69.32	80.62	11.6
1973	16.99	na	40.79	68.80	81.44	11.6
1974	19.20	113.00	61.00	83.80	87.20	13.7
1975	54.60	na	103.00	103.40	120.60	30.8
1976	55.60	215.40	105.00	128.60	140.60	27.3
1977	53.16	135.00	91.80	109.45	153.95	28.0
1978	59.04	na	104.32	111.89	175.21	29.4
1979	56.76	247.80	112.06	117.54	185.16	32.1
1980	70.74	296.60	128.71	145.14	245.64	39.0
1981	83.40	337.60	149.14	176.42	274.23	46.5
1982	92.84	337.60	156.53	187.02	269.18	51.3
1983	101.42	334.00	155.64	180.50	261.11	52.6
1984	105.11	322.95	175.92	206.60	286.30	56.0
1985	118.46	342.17	218.19	267.29	321.50	62.2
1986	131.00	378.00	209.00	271.00	280.00	68.3
1987	128.00	339.00	211.00	279.00	276.00	67.0
1988	132.70	379.00	212.20	294.15	303.00	68.3
1989	155.40	396.00	229.40	328.70	339.70	76.9
1990	165.80	364.70	259.50	341.00	324.00	82.4
1991	177.10	389.00	276.00	361.80	390.00	85.0
1992	180.00	385.20	289.60	368.70	380.70	90.3
1993	173.00	368.80	293.10	367.50	389.70	88.7
1994	174.50	343.80	298.40	373.50	382.90	87.1
1995	179.10	417.30	319.20	372.30	455.90	89.6
1996	184.20	449.30	325.90	369.20	479.60	98.2
1997	179.17	460.25	317.88	362.75	434.80	99.2
1998	196.50	497.83	343.00	409.17	380.60	100.0
1999	197.00	487.83	339.25	437.50	333.80	102.7
2000	197.80	441.50	361.00	474.75	371.60	98.6
2001	209.83	475.25	377.25	511.25	443.60	106.4
2002	223.41	463.16	373.08	498.50	387.40	104.3

<sup>a</sup> Average price paid by Australian farmers at 30 June. <sup>b</sup> Bulk. <sup>c</sup> Bagged. <sup>d</sup> Based on a 4 quarter average for the year ending 30 June. **na** Not available.  
 Sources: Department of Primary Industry, *Chemical Fertilisers in Australia*, AGPS, Canberra; manufacturers' price lists; ABARE.

## Farm inputs

### 91 World fertiliser indicator prices

	Phosphate rock <sup>a</sup>	Sulphur <sup>b</sup>	Diam- monium phosphate <sup>c</sup>	Triple super- phosphate <sup>c</sup>	Ammonia <sup>d</sup>	Urea <sup>d</sup>	Potash <sup>e</sup>
	A\$/t	A\$/t	A\$/t	A\$/t	A\$/t	A\$/t	A\$/t
1988-89	43.0	119.0	239.0	196.0	121.0	155.0	116.0
1989-90	50.0	111.0	212.0	163.0	73.0	147.0	127.0
1990-91	52.0	115.0	231.0	183.0	162.0	192.0	124.0
1991-92	56.0	83.0	211.0	159.0	148.0	190.0	144.0
1992-93	61.0	57.0	185.0	172.0	135.0	191.0	161.0
1993-94	55.0	47.0	223.0	195.0	219.0	192.0	164.0
1994-95	49.7	75.2	270.0	216.3	335.0	258.6	152.6
1995-96	49.9	63.2	300.7	229.5	262.6	273.4	149.0
1996-97	46.8	41.8	264.9	246.3	278.1	239.4	144.3
1997-98	53.9	44.8	302.2	279.7	233.0	190.3	166.2
1998-99	75.1	40.9	326.2	296.3	192.9	168.4	179.9
1999-00	75.0	64.0	268.0	243.0	227.0	190.0	179.0
2000-01	87.4	56.5	310.6	283.2	429.5	310.7	209.2
2001-02	89.8	46.5	298.8	262.4	286.2	216.5	214.9
<b>1997 quarter</b>							
March	47.1	43.8	266.7	250.8	315.0	250.6	145.0
June	47.6	46.3	269.9	256.1	255.5	216.0	146.6
September	49.7	49.3	280.7	259.9	257.2	183.3	153.3
December	52.8	54.3	296.1	275.9	224.4	168.8	162.8
<b>1998 quarter</b>							
March	54.9	39.9	305.5	284.0	207.4	170.0	169.3
June	58.1	35.8	326.0	298.5	242.9	238.8	179.2
September	78.7	37.7	351.5	315.6	232.5	217.7	188.3
December	75.5	36.1	331.3	301.5	178.8	159.9	180.6
<b>1999 quarter</b>							
March	74.3	37.7	316.6	294.2	169.3	142.6	177.9
June	72.1	52.2	305.2	273.7	191.1	153.3	172.6
September	72.2	57.9	292.5	260.8	179.8	141.4	172.9
December	73.0	62.1	261.0	233.0	194.8	163.7	174.7
<b>2000 quarter</b>							
March	74.3	64.5	253.4	232.5	198.2	218.3	177.7
June	79.6	71.9	266.8	244.8	333.7	237.0	190.5
September	81.7	69.5	287.1	249.4	347.7	278.4	195.5
December	88.2	64.8	319.8	294.9	413.9	296.6	211.2
<b>2001 quarter</b>							
March	88.2	54.1	324.1	295.5	541.3	379.6	211.1
June	91.5	37.7	311.6	293.0	415.1	288.0	219.1
September	90.7	33.1	287.0	242.0	350.8	211.5	217.0
December	88.2	64.8	319.8	294.9	413.9	296.6	211.2
<b>2002 quarter</b>							
March	90.7	47.9	316.3	284.3	253.1	213.4	217.1
June	85.3	62.9	292.1	261.5	258.5	206.8	204.2
September	85.7	66.6	324.0	293.8	265.0	243.2	205.2

<sup>a</sup> US Gulf 68 BPL for the period to June 30 1998. Data after June 1998 refer to Jordan 70-74 BPL. <sup>b</sup> Vancouver spot. <sup>c</sup> Fob US Gulf. <sup>d</sup> Fob Middle East for the period to 30 June 1993 when data from this source became unavailable. Data after 30 June 1993 refer to fob US Gulf. <sup>e</sup> Vancouver standard muriate.

Source: Derived from data in Pike and Fischer, *Green Markets*, Maryland, United States.

## 92 Australian fertiliser consumption, by element

	Phosphate (P <sub>2</sub> O <sub>5</sub> ) kt	Nitrogen (N) kt	Potash (K <sub>2</sub> O) kt
1982-83	742.0	258.0	127.1
1983-84	764.0	305.0	140.7
1984-85	685.0	344.0	141.2
1985-86	726.3	340.0	130.0
1986-87	871.8	332.5	135.7
1987-88	842.5	363.1	147.4
1988-89	790.5	392.6	160.8
1989-90	578.9	440.3	162.6
1990-91	580.0	439.4	145.4
1991-92	680.2	462.4	142.1
1992-93	801.4	488.0	145.2
1993-94	790.5	548.0	172.6
1994-95	950.0	564.5	201.2
1995-96	977.5	671.3	219.0
1996-97	1 016.0	824.6	196.5
1997-98	1 148.1	839.4	249.0
1998-99	1 058.7	940.7	223.0
1999-00	1 034.9	1 099.4	206.9
2000-01	1 096.6	1 002.0	202.6
2001-02	1 108.0	1 049.9	225.4

Sources: FAO, *World Fertilisers Year Book*, Rome; Incitec Ltd, Queensland; ABARE.

## 93 Australian imports of fertiliser, by element

	Phosphate (P <sub>2</sub> O <sub>5</sub> ) kt	Nitrogen (N) kt	Potash (K <sub>2</sub> O) kt
1982-83	116.8	81.5	113.9
1983-84	174.0	96.0	140.7
1984-85	194.6	149.7	145.4
1985-86	150.4	121.3	116.7
1986-87	176.5	153.8	136.9
1987-88	146.3	154.2	165.5
1988-89	249.9	204.8	179.9
1989-90	305.0	257.2	173.0
1990-91	306.0	270.1	147.2
1991-92	331.6	257.2	145.4
1992-93	464.1	308.6	153.7
1993-94	447.3	392.2	179.1
1994-95	516.0	406.8	219.6
1995-96	604.1	469.3	218.6
1996-97	644.5	597.7	196.9
1997-98	713.7	654.7	258.9
1998-99	696.5	695.1	213.0
1999-00	667.7	842.2	206.9
2000-01	637.3	704.7	202.6
2001-02	588.8	746.6	243.5

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; FAO, *World Fertilisers Year Book*, Rome; Incitec Ltd, Queensland; ABARE.

## Farm inputs

### 94 Australian imports of raw materials for fertiliser production, by source

	Sulphur		Phosphate rock						Total kt
	Canada kt	Other kt	Christmas Island kt	Jordan kt	Morocco kt	Nauru kt	United States kt	Other kt	
1971-72	212	65	503	0	0	na	0	na	1 654
1972-73	396	10	684	0	0	na	0	na	2 282
1973-74	381	23	955	0	0	na	0	na	3 104
1974-75	502	78	1 002	0	0	na	0	na	2 639
1975-76	180	26	503	0	0	na	0	na	1 461
1976-77	381	26	567	0	0	na	0	na	1 319
1977-78	470	26	487	0	0	na	0	na	1 610
1978-79	337	99	543	0	0	na	39	na	1 756
1979-80	627	60	674	0	0	na	215	na	1 936
1980-81	552	4	624	0	0	na	452	na	2 232
1981-82	459	0	780	5	25	na	216	na	2 360
1982-83	371	21	699	80	0	na	314	na	2 111
1983-84	470	0	456	34	25	na	247	na	1 688
1984-85	420	1	533	22	111	na	214	na	1 762
1985-86	458	0	506	55	103	na	181	na	1 921
1986-87	329	1	370	0	66	na	108	na	1 459
1987-88	462	11	240	26	256	na	103	na	1 808
1988-89	506	13	0	56	310	1 203	369	299	2 237
1989-90	382	13	0	33	236	768	207	187	1 430
1990-91	108	9	0	0	93	224	97	61	476
1991-92	38	6	0	30	0	257	145	42	474
1992-93	79	20	0	160	62	355	188	84	849
1993-94	71	0	13	213	144	203	170	33	776
1994-95	122	22	22	272	182	178	230	182	1 067
1995-96	114	31	47	297	136	191	195	45	911
1996-97	113	32	66	402	104	167	69	97	906
1997-98	126	5	126	393	238	153	0	150	1 060
1998-99	231	94	146	266	273	88	0	110	884
1999-00	255	7	50	139	151	106	0	310	756
2000-01	435	46	0	0	145	119	0	559	823
2001-02	539	4	0	0	94	27	0	812	933

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia*, AGPS, Canberra.

# 95 Australian trade in manufactured fertiliser, by type

	Imports					Exports		
	Triple superphosphate kt	Diammonium phosphate kt	Monammonium phosphate kt	Other ammonium kt	Urea kt	Potassic fertiliser kt	Nitrogen fertiliser kt	Ammonium phosphates kt
1970-71	3.1	0.0	0.0	15.1	na	291.9	0.8	0.0
1971-72	2.4	0.0	0.0	27.3	na	286.2	7.8	0.0
1972-73	2.0	0.0	0.0	9.3	1.3	165.4	21.4	0.0
1973-74	1.8	0.0	0.0	4.1	0.1	182.9	37.9	0.0
1974-75	0.3	0.0	0.0	6.5	4.3	211.1	7.3	0.0
1975-76	0.1	0.0	0.0	0.3	4.7	110.2	47.9	0.0
1976-77	20.7	0.0	0.0	6.3	17.9	165.5	1.2	0.0
1977-78	10.1	0.0	0.0	9.4	10.2	161.9	7.2	0.0
1978-79	66.3	0.2	0.0	8.9	16.7	152.8	8.2	0.0
1979-80	0.0	2.2	0.0	30.7	41.2	168.5	24.2	0.0
1980-81	0.0	51.2	9.0	38.7	40.2	211.7	22.9	0.0
1981-82	0.0	50.5	8.9	62.7	43.2	239.2	18.5	0.0
1982-83	25.2	183.6	32.4	22.7	76.6	203.0	21.2	0.0
1983-84	35.1	257.5	45.9	14.7	64.0	227.9	4.5	0.0
1984-85	55.4	306.6	54.4	46.3	138.2	239.1	34.6	0.0
1985-86	48.1	229.4	40.2	41.7	144.2	194.4	6.2	0.0
1986-87	76.4	201.8	38.2	80.3	177.2	226.7	10.3	0.0
1987-88	88.4	124.7	15.3	98.9	212.0	276.7	16.1	0.0
1988-89	97.3	250.3	103.1	113.1	255.1	295.5	46.5	0.0
1989-90	114.3	320.3	164.2	78.6	361.7	285.0	48.3	0.0
1990-91	157.8	347.3	141.1	42.9	388.8	244.3	96.6	0.0
1991-92	264.4	355.0	206.2	90.2	364.5	243.4	60.8	0.0
1992-93	249.9	482.7	250.0	116.8	367.2	256.6	50.8	0.0
1993-94	204.2	501.2	237.5	133.7	526.5	298.6	76.6	0.0
1994-95	306.8	548.5	232.6	124.9	554.3	366.1	66.0	0.0
1995-96	269.3	715.4	291.5	154.0	594.9	364.4	40.0	0.0
1996-97	335.5	706.0	317.3	197.3	850.7	328.3	32.1	0.0
1997-98	351.8	757.1	391.6	118.1	953.3	431.6	43.2	0.0
1998-99	284.9	771.7	413.6	78.5	1 038.2	355.5	65.0	0.0
1999-00	240.4	570.2	580.0	74.9	1 399.8	345.0	75.2	22.1
2000-01	224.1	447.4	647.4	22.6	1 139.5	337.7	107.7	282.8
2001-02	280.2	271.0	659.2	75.5	1 295.8	405.9	101.3	na

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia*, AGPS, Canberra.



## Farm inputs

### 96 Volume of Australian fertiliser imports, by state

	Triple superphosphate kt	Diammonium phosphate kt	Monammonium phosphate kt	Ammonium fertilisers		Urea kt	Potassic fertiliser kt	Phosphate rock kt
				Sulphate kt	Nitrate kt			
<b>New South Wales</b>								
1996-97	16.7	66.0	90.6	6.4	17.2	96.8	18.3	145.1
1997-98	49.6	109.2	81.0	6.1	9.2	95.8	20.3	150.1
1998-99	15.9	84.9	88.0	7.6	6.3	119.1	16.4	142.7
1999-00	20.7	70.6	115.6	3.0	10.3	137.6	18.4	164.8
2000-01	28.3	32.1	110.1	2.3	4.4	117.3	16.2	174.3
2001-02	32.8	24.5	108.6	5.4	14.4	136.4	19.8	204.4
<b>Victoria</b>								
1996-97	127.0	163.7	103.9	21.2	4.2	217.9	119.2	430.1
1997-98	148.3	197.8	143.7	22.6	3.3	253.7	145.0	484.4
1998-99	116.5	201.8	141.7	16.5	0.8	252.6	120.2	425.0
1999-00	91.2	149.4	191.4	5.7	0.9	318.7	94.4	349.0
2000-01	79.3	116.4	233.8	2.5	0.0	365.9	95.3	359.5
2001-02	107.1	72.6	269.0	7.4	0.4	371.0	128.9	369.0
<b>Queensland</b>								
1996-97	9.5	91.9	48.7	0.2	47.1	190.1	99.0	0.3
1997-98	7.4	85.8	45.6	7.9	13.0	223.4	120.0	0.6
1998-99	10.3	103.4	48.4	6.8	8.8	193.6	98.0	0.3
1999-00	6.1	45.4	69.7	0.8	26.9	293.3	105.1	0.1
2000-01	10.3	39.2	66.1	0.4	3.1	226.5	83.8	0.4
2001-02	6.8	5.8	60.1	0.9	27.8	255.3	98.5	1.0
<b>Western Australia</b>								
1996-97	132.8	196.0	37.6	36.1	48.6	263.9	64.0	252.4
1997-98	103.2	136.7	66.6	11.3	33.8	275.6	100.2	299.6
1998-99	90.6	167.4	95.4	0.0	21.9	351.1	90.4	267.6
1999-00	75.9	118.5	156.5	0.2	25.2	514.0	101.5	107.5
2000-01	67.0	125.7	182.6	6.6	2.8	294.4	110.6	161.1
2001-02	82.2	113.6	178.3	0.2	13.6	364.0	128.0	176.2
<b>South Australia</b>								
1996-97	45.5	168.3	36.5	8.4	4.7	79.0	13.5	0.0
1997-98	39.0	200.2	54.6	2.7	3.6	98.5	13.3	0.0
1998-99	44.2	191.4	40.2	6.1	1.5	116.0	10.7	0.0
1999-00	26.0	173.5	46.9	0.0	1.8	125.6	5.2	0.0
2000-01	19.8	129.2	54.9	0.1	0.4	121.7	7.8	0.0
2001-02	23.0	54.5	43.2	4.6	0.7	153.0	9.4	0.0
<b>Tasmania</b>								
1996-97	4.0	20.0	0.0	2.4	0.7	3.1	14.4	78.2
1997-98	4.3	25.2	0.0	4.5	0.1	6.2	32.8	125.1
1998-99	7.4	22.8	0.0	2.2	0.0	5.8	19.8	48.0
1999-00	20.5	12.8	0.0	0.0	0.0	10.5	20.5	72.4
2000-01	19.4	4.9	0.0	0.0	0.0	13.6	24.0	60.8
2001-02	28.3	0.0	0.0	0.0	0.0	16.0	21.4	138.6
<b>Australia</b>								
1996-97	335.5	706.0	317.3	74.7	122.6	850.7	328.3	906.2
1997-98	351.8	757.1	391.6	55.0	63.1	953.3	431.6	1 059.7
1998-99	284.9	771.7	413.6	39.2	39.3	1 038.2	355.5	883.7
1999-00	240.4	570.2	580.0	9.8	65.1	1 399.8	345.0	755.6
2000-01	224.1	447.4	647.4	12.0	10.7	1 139.5	337.7	822.7
2001-02	280.2	271.0	659.2	18.4	57.1	1 295.8	405.9	933.2

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 97 Value of Australian fertiliser imports, by state <sup>a</sup>

	Triple superphosphate \$m	Diammonium phosphate \$m	Monammonium phosphate \$m	Ammonium fertilisers		Urea \$m	Potassic fertiliser \$m	Phosphate rock \$m
				Sulphate \$m	Nitrate \$m			
New South Wales								
1996-97	3.75	17.14	23.19	0.95	4.19	24.04	3.50	8.98
1997-98	9.22	32.35	23.24	1.45	2.23	18.28	4.39	10.23
1998-99	4.23	26.53	27.69	1.94	1.59	19.43	4.79	11.33
1999-00	3.99	16.86	27.44	0.54	2.09	23.22	4.22	12.19
2000-01	7.39	9.92	32.14	0.54	1.07	29.08	4.37	13.84
2001-02	7.81	6.82	30.63	1.21	4.33	27.43	6.04	17.81
Victoria								
1996-97	27.08	42.91	26.66	3.23	1.05	55.43	20.27	23.83
1997-98	35.47	57.58	42.00	4.93	0.83	48.99	28.18	29.95
1998-99	30.23	65.62	45.20	3.46	0.23	40.54	27.30	27.79
1999-00	18.68	36.72	47.07	1.03	0.21	53.60	22.00	25.06
2000-01	20.32	34.01	68.81	0.55	0.01	90.10	25.57	25.42
2001-02	22.65	21.10	77.33	1.65	0.11	76.06	36.13	25.62
Queensland								
1996-97	2.14	24.28	12.79	0.04	13.01	48.13	18.08	0.06
1997-98	1.68	24.20	13.00	1.81	4.09	40.68	25.82	0.15
1998-99	2.79	33.67	15.76	0.90	2.44	34.90	25.73	0.08
1999-00	1.32	11.63	17.45	0.17	6.06	48.36	23.90	0.02
2000-01	2.61	11.09	19.25	0.10	0.87	54.88	22.06	0.05
2001-02	1.60	1.64	17.42	0.18	8.56	49.97	28.41	0.12
Western Australia								
1996-97	28.89	52.01	10.22	3.80	12.65	64.86	10.48	13.04
1997-98	25.17	41.87	20.06	1.22	9.38	54.41	20.16	19.33
1998-99	24.60	55.47	32.35	0.00	6.20	51.96	20.92	21.80
1999-00	14.65	29.48	38.62	0.04	6.48	83.23	23.55	7.91
2000-01	15.52	41.57	58.22	1.39	0.64	75.14	27.90	12.95
2001-02	18.70	33.33	53.05	0.03	3.86	70.98	34.29	13.52
South Australia								
1996-97	10.27	44.54	9.76	1.29	1.22	18.89	3.29	0.01
1997-98	9.96	60.08	16.05	0.67	1.09	16.62	3.62	0.00
1998-99	10.53	63.28	13.29	1.54	0.47	18.12	2.61	0.00
1999-00	5.57	42.55	11.53	0.01	0.47	22.53	1.30	0.03
2000-01	4.88	39.09	16.19	0.02	0.12	32.36	2.34	0.00
2001-02	5.23	16.36	12.25	1.03	0.20	31.29	2.76	0.00
Tasmania								
1996-97	0.89	5.18	0.00	0.35	0.16	0.73	2.37	4.14
1997-98	1.04	6.97	0.00	1.08	0.04	1.24	6.14	7.93
1998-99	1.95	7.85	0.00	0.56	0.00	0.96	4.37	3.30
1999-00	1.88	3.40	0.00	0.00	0.00	1.56	4.26	4.97
2000-01	2.62	1.21	0.00	0.00	0.00	3.58	5.90	5.40
2001-02	3.05	0.00	0.00	0.00	0.02	3.06	5.64	10.86
Australia								
1996-97	73.02	186.04	82.62	9.66	32.29	212.08	57.99	50.06
1997-98	82.55	223.82	114.35	11.17	17.65	180.23	88.33	67.59
1998-99	74.33	252.43	134.28	8.41	10.94	165.91	85.73	64.29
1999-00	46.09	140.64	142.10	1.80	15.31	232.51	79.22	54.00
2000-01	53.34	136.88	194.60	2.59	2.72	285.14	88.15	61.82
2001-02	59.05	79.24	190.68	4.10	17.07	258.79	113.27	71.67

<sup>a</sup> Fob at the port of origin.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Farm inputs

### 98 Volume of Australian fertiliser imports, by quarter

	Triple superphosphate kt	Diammonium phosphate kt	Monammonium phosphate kt	Ammonium fertilisers		Urea kt	Potassic fertiliser kt	Phosphate rock kt
				Sulphate kt	Nitrate kt			
<b>1995 quarter</b>								
March	117.0	205.3	84.8	3.8	20.7	102.7	52.0	229.4
June	101.0	183.6	102.2	0.2	19.1	180.4	129.9	202.1
September	36.1	74.6	32.5	19.2	13.5	162.1	116.0	268.9
December	60.4	103.9	40.6	9.2	19.1	111.5	88.2	328.0
<b>1996 quarter</b>								
March	107.1	281.9	115.3	0.2	35.5	119.6	92.8	202.0
June	65.8	255.0	103.0	2.2	58.6	201.8	69.0	111.8
September	58.2	140.2	37.4	13.6	47.3	231.6	62.5	223.5
December	87.7	151.3	70.4	15.2	28.0	177.8	80.9	291.0
<b>1997 quarter</b>								
March	103.4	216.2	116.9	17.4	32.1	137.1	100.1	200.7
June	86.3	198.4	92.5	28.6	24.0	304.2	85.8	191.0
September	29.4	88.4	19.7	24.1	22.3	243.9	86.8	322.5
December	87.3	119.2	87.9	5.7	17.2	148.1	121.3	284.8
<b>1998 quarter</b>								
March	155.4	306.7	171.7	25.0	12.5	220.0	109.6	265.1
June	79.8	242.8	112.4	0.3	13.9	344.2	117.2	187.3
September	62.3	92.5	48.2	19.6	7.5	193.3	77.7	342.1
December	47.5	101.7	61.6	0.3	16.9	162.1	76.3	306.3
<b>1999 quarter</b>								
March	112.6	369.4	203.1	13.6	4.6	296.5	87.4	154.1
June	62.6	208.1	100.8	5.8	13.4	386.4	115.7	81.2
September	33.0	41.9	32.1	0.3	18.5	286.3	86.8	182.9
December	38.4	95.1	154.9	0.5	32.6	226.7	86.3	255.6
<b>2000 quarter</b>								
March	121.4	258.0	236.2	8.5	7.3	317.5	107.5	193.4
June	47.6	175.2	156.8	0.5	6.7	569.2	72.7	123.6
September	8.9	38.5	53.2	0.4	1.1	316.2	84.4	135.6
December	54.4	38.5	91.8	0.3	4.1	122.4	70.7	311.1
<b>2001 quarter</b>								
March	68.4	171.3	305.0	6.8	4.2	271.9	129.8	259.5
June	92.4	199.1	197.4	4.5	1.2	429.1	61.1	116.5
September	14.5	9.0	56.5	8.4	8.3	193.2	98.8	265.8
December	54.4	38.5	91.8	0.3	4.1	122.4	70.7	311.1
<b>2002 quarter</b>								
March	124.7	138.1	257.7	0.4	13.9	243.1	140.1	193.3
June	70.8	102.9	218.3	9.2	19.8	646.8	107.9	207.1
September	62.4	4.9	60.4	9.0	23.1	160.8	122.5	283.7

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 99 Value of Australian fertiliser imports, by quarter <sup>a</sup>

	Triple superphosphate \$m	Diammonium phosphate \$m	Monammonium phosphate \$m	Ammonium fertilisers		Urea \$m	Potassic fertiliser \$m	Phosphate rock \$m
				Sulphate \$m	Nitrate \$m			
<b>1995 quarter</b>								
March	21.6	54.8	22.8	0.7	4.8	29.8	13.4	11.8
June	19.5	52.8	28.8	0.1	4.7	55.9	23.3	9.8
September	7.2	20.1	9.3	3.7	3.5	44.5	20.6	16.4
December	12.0	31.2	12.5	0.9	5.1	31.6	15.4	17.4
<b>1996 quarter</b>								
March	22.4	89.9	36.6	0.1	10.0	36.8	17.4	11.8
June	15.3	72.8	28.1	0.3	14.4	55.3	12.3	6.6
September	12.9	37.1	10.0	1.6	11.9	60.1	11.3	11.7
December	20.2	39.4	18.5	2.2	7.3	45.8	14.0	15.6
<b>1997 quarter</b>								
March	23.2	59.2	31.0	2.2	8.6	35.0	18.3	11.5
June	16.8	50.4	23.1	3.6	6.6	71.2	14.7	11.3
September	5.3	23.6	5.5	4.1	5.8	51.8	16.7	20.2
December	20.2	34.8	25.8	1.0	4.8	25.7	23.0	17.0
<b>1998 quarter</b>								
March	36.6	91.9	50.4	6.1	3.7	38.5	24.4	17.2
June	20.5	73.6	32.7	0.1	4.0	64.3	25.3	13.2
September	17.3	32.1	16.9	4.3	2.2	37.3	18.2	26.9
December	11.3	36.5	21.0	0.1	4.8	29.1	19.9	22.3
<b>1999 quarter</b>								
March	29.5	119.9	65.8	2.6	1.2	42.6	20.2	10.5
June	16.1	64.0	30.6	1.4	3.5	56.8	28.1	4.7
September	7.4	11.8	9.5	0.1	4.3	37.7	18.8	13.1
December	7.1	23.4	38.1	0.1	7.8	30.7	19.9	18.3
<b>2000 quarter</b>								
March	21.5	62.0	55.9	1.5	1.6	52.5	24.3	13.5
June	10.0	43.5	38.5	0.1	1.5	111.6	18.9	9.1
September	1.9	9.5	15.0	0.1	0.3	70.0	21.1	9.7
December	13.5	12.8	29.2	0.1	0.9	31.3	18.6	23.5
<b>2001 quarter</b>								
March	17.4	50.8	89.3	1.4	1.2	78.0	33.1	19.8
June	20.5	63.8	61.1	1.0	0.4	105.8	17.9	8.8
September	3.4	2.4	17.3	1.9	2.3	35.8	29.2	21.2
December	13.5	12.8	29.2	0.1	0.9	31.3	18.6	23.5
<b>2002 quarter</b>								
March	26.4	40.7	75.4	0.1	4.0	51.4	37.3	14.5
June	14.2	30.6	62.6	2.1	6.1	126.6	30.9	15.5
September	14.3	1.5	18.3	1.9	6.6	32.5	32.2	20.3

<sup>a</sup> Fob at the port of origin.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Farm inputs

### 100 Australian sales and prices of chemicals, by product type

	Herbicides <sup>ab</sup>	Fungicides/ plant growth regulants <sup>ab</sup>	Insecticides <sup>ab</sup>	Animal health products <sup>ac</sup>	Index of prices paid for chemicals <sup>d</sup>
	\$'000	\$'000	\$'000	\$'000	
1975	25 594	8 237	13 424	na	34.3
1976	35 518	10 337	13 627	na	40.1
1977	46 402	10 950	21 202	na	43.6
1978	54 362	12 090	25 317	61 462	44.7
1979	77 349	14 175	28 753	na	49.9
1980	94 301	17 551	34 986	88 552	58.0
1981	108 837	20 167	37 046	92 022	61.0
1982	109 722	19 744	37 957	91 810	62.7
1983	159 888	28 829	42 905	118 443	66.2
1984	192 830	29 536	53 906	137 878	70.3
1985	207 226	30 165	52 659	155 542	76.7
1986	216 820	34 845	60 233	171 839	84.3
1987	284 445	43 332	86 861	188 546	89.4
1988	366 727	46 622	104 395	284 375	89.4
1989	402 573	60 614	93 075	283 240	91.2
1990	398 336	57 856	115 108	267 017	93.2
1991	354 058	55 013	118 383	211 000	96.4
1992	463 104	87 699	120 688	247 823	97.5
1993	501 051	97 286	130 808	266 334	98.0
1994	421 457	79 710	130 823	259 940	97.2
1995	503 700	86 400	189 300	271 500	97.9
1996	600 500	101 300	251 600	285 000	98.1
1997	713 601	123 698	268 380	302 000	99.0
1998	833 987	138 570	328 270	291 500	100.0
1999	895 868	149 892	361 409	320 650	100.4
2000	965 041	156 637	379 479	364 314	101.6
2001	na	164 469	406 043	382 529	103.3

<sup>a</sup> For the years to 1995, figures represent sales at the factory gate. These figures do not include sales from non-AVCARE members but are likely to represent about 90 per cent of actual total sales. <sup>b</sup> For the years after 1995, figures refer to total Australian sales as recorded by the National Registration Authority. <sup>c</sup> Estimated by ABARE for the years after 1995. <sup>d</sup> Based on a 4 quarter average for the year ending 30 June. **na** Not available.  
*Sources:* Derived from data provided by AVCARE, Sydney; National Registration Authority, Kingston, Canberra; ABARE.

# 101 Australian farm fuel prices

	Petrol		Off-road diesel <sup>a</sup>	Index of prices paid for fuel <sup>d</sup>
	Super grade <sup>ab</sup>	Unleaded <sup>c</sup>		
	c/L	c/L	c/L	
1970-71	8.70	na	4.39	11.5
1971-72	9.24	na	4.65	11.5
1972-73	9.32	na	4.66	11.5
1973-74	10.31	na	4.74	12.4
1974-75	11.68	na	5.97	15.1
1975-76	13.53	na	7.86	19.5
1976-77	14.51	na	9.02	22.2
1977-78	17.13	na	11.21	25.7
1978-79	21.16	na	14.92	32.8
1979-80	28.79	na	22.22	46.1
1980-81	34.04	na	27.78	57.6
1981-82	36.30	na	29.64	63.0
1982-83	42.13	na	33.22	72.7
1983-84	45.50	na	34.00	78.9
1984-85	47.95	na	36.13	84.2
1985-86	52.21	na	33.91	86.9
1986-87	54.32	na	30.83	86.0
1987-88	56.28	na	31.49	88.7
1988-89	53.89	na	27.17	80.4
1989-90	60.27	na	30.89	91.6
1990-91	67.58	na	36.39	106.0
1991-92	64.70	na	33.14	99.6
1992-93	67.07	na	35.10	104.1
1993-94	67.23	na	32.47	100.5
1994-95	68.87	na	29.25	96.6
1995-96	71.54	na	30.60	100.4
1996-97	73.52	na	32.69	104.9
1997-98	73.02	76.51	29.98	100.0
1998-99	69.20	71.79	27.80	95.2
1999-00	82.16	85.18	36.62	115.5
2000-01	92.60	96.80	54.30	138.6
2001-02	81.62	87.62	47.64	131.2

<sup>a</sup> Average price paid by Australian farmers. Net petrol price including farm rebates and subsidies. <sup>b</sup> Leaded petrol phased out as at 1 Jan 2002. Lead replacement petrol (LRP) introduced as at 1 Jan 2002. <sup>c</sup> Petrol price paid at the pump, excludes farm rebates and subsidies. <sup>d</sup> Base: 1997-98 = 100.  
*Sources:* Shell Australia Limited; Caltex Australia Petroleum Pty Ltd; ABARE.

## Farm inputs

# 102 Persons employed in agriculture, forestry, fishing and hunting

	1994-95 '000	1995-96 '000	1996-97 '000	1997-98 '000	1998-99 '000	1999-00 '000	2000-01 '000	2001-02 '000
Agriculture								
Grains, sheep and beef cattle	200.8	201.5	203.5	202.5	199.0	209.0	209.5	213.3
Horticulture and fruit	77.3	92.8	87.3	90.8	91.5	99.0	95.5	97.0
Other crops	17.0	17.0	18.0	20.5	20.0	19.0	15.8	17.0
Dairy cattle	34.5	30.3	40.0	38.3	32.5	34.3	29.8	30.8
Poultry	10.0	11.5	10.0	9.3	8.3	8.8	8.8	9.8
Other livestock	17.5	16.5	16.0	16.5	14.3	12.5	9.8	12.3
Total	356.6	369.9	375.0	377.9	365.9	383.0	368.6	381.0
Services to agriculture	18.5	17.8	22.5	25.0	27.5	29.3	27.5	24.8
Forestry and logging	12.5	11.3	10.8	13.8	14.3	8.8	13.3	13.0
Marine fishing	10.3	9.5	9.3	9.8	9.8	10.0	13.5	13.0
Aquaculture	4.3	9.5	4.3	4.0	4.0	5.8	5.8	5.8
Hunting and trapping	0.8	0.5	0.5	0.0	0.4	0.5	0.7	1.3
Total	403.4	418.5	421.9	430.8	422.3	438.0	429.1	438.3

Source: ABS, 6292.0.40.001 Labour Force, Selected Summary Tables, Australia, Quarterly, Q3 Employed Persons by Sex, Industry, State, status in Employment.

# 103 Australian wages and the consumer price index <sup>a</sup>

	Contract rates %	Shearing rates <sup>b</sup> %	Rural wages %	Average weekly earnings %	Consumer price index %
1970-71	na	na	na	na	4.5
1971-72	-1.4	na	5.6	10.2	6.9
1972-73	1.9	na	9.3	9.0	6.1
1973-74	6.3	na	20.0	16.2	12.9
1974-75	18.8	na	37.3	26.6	16.8
1975-76	14.9	na	13.7	15.7	12.9
1976-77	12.4	13.1	13.1	14.7	13.9
1977-78	6.7	9.2	10.8	10.3	9.5
1978-79	9.4	6.2	6.1	8.4	8.2
1979-80	8.4	12.3	7.2	8.5	10.2
1980-81	9.6	9.0	9.1	12.6	9.3
1981-82	9.7	9.6	11.7	12.3	10.5
1982-83	14.9	8.5	10.1	13.1	11.5
1983-84	7.8	3.8	6.2	7.1	6.7
1984-85	6.5	8.4	7.9	9.1	4.3
1985-86	3.8	4.2	4.7	5.1	8.4
1986-87	2.2	4.4	4.7	6.4	9.4
1987-88	3.7	2.9	3.9	5.9	7.3
1988-89	7.0	11.0	7.3	6.5	7.3
1989-90	6.1	6.5	7.4	6.9	8.0
1990-91	6.7	1.4	4.8	6.7	5.3
1991-92	4.1	1.0	4.6	2.6	1.9
1992-93	3.1	4.2	3.6	2.4	1.0
1993-94	3.0	0.4	1.4	2.9	1.8
1994-95	1.9	0.8	1.4	3.4	3.2
1995-96	1.0	2.3	3.1	2.5	4.2
1996-97	1.2	1.5	2.0	3.2	1.3
1997-98	0.5	1.8	3.1	2.9	0.0
1998-99	2.0	5.3	2.0	2.6	1.2
1999-00	3.4	1.8	3.2	1.8	2.4
2000-01	6.0	3.5	2.8	5.3	6.0
2001-02	na	na	na	na	2.9

<sup>a</sup> Percentage change from previous year. <sup>b</sup> Based on price per 100 flock sheep. **na** Not available.

Sources: ABS, *Average Weekly Earnings, Australia*, cat. no. 6302.0, Canberra (derived from average weekly earnings for all employees series); ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra; ABARE.



## Fisheries

# 104

### Summary of Australian fisheries statistics

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Prawns</b>									
Production <b>a</b> <b>s</b>	kt	28.0	29.4	27.7	29.6	31.2	26.8	30.0	25.0
Value of production	\$m	368.0	368.4	344.3	385.3	416.4	414.6	453.5	351.6
Exports <b>b</b>	kt	11.3	13.1	11.0	12.4	12.0	11.6	12.1	11.9
Value of exports	\$m	231.7	223.4	184.8	234.2	224.3	243.8	291.0	262.8
Imports <b>b</b>	kt	14.3	13.1	13.8	14.8	15.8	15.7	15.6	17.6
Value of imports	\$m	166.4	154.7	156.2	191.1	202.6	192.9	233.5	221.4
<b>Rock lobster</b>									
Production <b>a</b> <b>c</b>	kt	16.3	15.8	15.8	16.6	19.3	20.3	16.8	14.3
Value of production <b>c</b>	\$m	450.0	372.4	413.2	377.0	438.4	545.4	481.1	501.0
Exports <b>b</b>	kt	12.4	12.3	12.5	12.3	14.4	15.5	13.3	10.9
Value of exports	\$m	474.7	417.6	453.4	424.5	451.4	577.7	532.6	492.6
<b>Abalone</b>									
Production <b>a</b> <b>s</b>	kt	5.2	5.4	5.2	5.2	5.6	5.6	5.7	5.8
Value of production	\$m	144.7	142.4	152.5	182.1	172.9	220.7	276.1	245.3
Exports <b>b</b>	kt	2.9	3.0	2.9	3.0	3.4	3.8	3.5	4.0
Value of exports	\$m	168.2	146.7	169.6	191.7	184.6	223.4	249.3	263.1
<b>Scallops</b>									
Production <b>a</b>	kt	15.6	15.1	8.8	10.3	7.6	12.0	9.2	5.7
Value of production	\$m	65.1	66.5	36.7	39.6	37.5	43.1	39.6	23.0
Exports <b>b</b>	kt	2.9	2.7	1.3	1.3	1.6	1.7	2.1	1.5
Value of exports	\$m	72.1	67.1	36.6	36.4	33.2	42.0	53.4	34.4
<b>Oysters</b>									
Production	kt	9.4	10.1	10.1	10.7	8.7	10.7	10.5	5.6
Value of production	\$m	47.6	51.5	52.0	47.0	45.2	53.3	55.1	24.9
<b>Tuna</b>									
Production <b>a</b> <b>d</b> <b>s</b>	kt	8.7	9.2	13.0	11.9	16.7	16.2	16.1	15.9
Value of production <b>d</b>	\$m	129.8	85.0	96.0	130.8	221.5	256.7	328.8	322.9
Exports <b>b</b> <b>e</b>	kt	3.4	4.6	5.8	7.6	8.5	12.6	14.8	13.9
Value of exports <b>e</b>	\$m	40.7	55.7	67.2	104.5	120.4	259.3	331.9	325.8
Imports <b>b</b>	kt	19.3	15.1	20.3	18.7	21.8	18.2	23.6	25.3
Value of imports	\$m	54.3	50.9	57.2	66.4	82.0	70.6	82.8	104.9
<b>Other fish</b>									
Production <b>a</b> <b>s</b>	kt	127.5	123.5	128.5	134.3	127.0	114.3	121.2	131.6
Value of production	\$m	336.8	352.2	378.3	395.6	441.4	452.6	486.0	518.5
Exports <b>b</b>	kt	13.4	12.8	13.2	16.5	17.7	15.0	13.3	17.5
Value of exports	\$m	101.5	111.5	115.4	129.4	154.4	133.7	146.4	176.0
Imports <b>b</b>	kt	67.2	67.7	70.1	72.3	75.9	84.1	85.2	82.4
Value of imports	\$m	288.9	298.8	291.3	328.8	360.3	392.7	426.4	431.8

**a** Live weight. **b** Product weight. **c** Includes bugs for Queensland. **d** Includes an estimate of tuna production from joint venture agreements. Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. **e** Excludes tuna transhipped at sea or captured under joint venture or bilateral agreements. **s** Includes estimates of aquaculture.

Sources: ABARE, *Australian Fisheries Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

# 105 Quantity and value of Australian production of fisheries products

	Unit	Prawns	Rock lobster <sup>a</sup>	Abalone	Scallops	Oysters	Fish <sup>b</sup>	Tuna	All fisheries products <sup>c</sup>
<b>Quantity <sup>d</sup></b>									
1980-81	kt	26.9	15.6	6.9	9.8	8.3	58.0	18.2	na
1981-82	kt	21.8	16.0	7.7	15.4	7.8	57.9	21.7	na
1982-83	kt	22.2	18.0	6.1	32.0	7.8	58.5	21.3	na
1983-84	kt	22.7	16.0	8.5	33.5	7.0 <sup>e</sup>	64.0	15.8	na
1984-85	kt	20.5	14.1	7.7	19.2	7.5	73.0	13.0	na
1985-86	kt	18.5	11.8	7.0	16.2	6.8	76.0	13.5	na
1986-87 <sup>s</sup>	kt	21.0	12.0	7.0	12.0	7.1	85.0	12.0	na
1987-88 <sup>s</sup>	kt	23.0	16.0	7.0	6.0	8.0	94.0	11.0	na
1988-89 <sup>s</sup>	kt	28.0	18.0	6.0	5.0	8.0	98.0	9.0	179.0
1989-90 <sup>s</sup>	kt	23.3	15.7	5.1	6.3	7.5	120.9	8.2 <sup>f</sup>	194.2
1990-91 <sup>s</sup>	kt	29.1	14.7	5.2	14.5	8.1	145.4	11.7 <sup>g</sup>	236.0
1991-92 <sup>s</sup>	kt	24.5	18.5	5.0	29.8	8.2	139.8	13.2 <sup>g</sup>	247.7
1992-93 <sup>s</sup>	kt	25.1	18.4	4.7	33.6	8.6	123.6	10.2 <sup>g</sup>	238.8
1993-94 <sup>s</sup>	kt	23.2	16.8	4.7	23.6	8.7	121.9	7.7 <sup>g</sup>	225.2
1994-95 <sup>s</sup>	kt	28.0	16.3	5.2	15.6	9.4	127.5	8.7 <sup>g</sup>	233.3
1995-96 <sup>s</sup>	kt	29.4	15.8	5.4	15.1	10.1	123.5	9.2 <sup>g</sup>	230.1
1996-97 <sup>s</sup>	kt	27.7	15.8	5.2	8.8	10.1	128.5	13.0 <sup>g</sup>	224.5
1997-98 <sup>s</sup>	kt	29.6	16.6	5.2	10.3	10.7	134.3	11.9 <sup>g</sup>	234.1
1998-99 <sup>s</sup>	kt	31.2	19.3	5.6	7.6	8.7	127.0	16.7 <sup>g</sup>	232.6
1999-00 <sup>s</sup>	kt	26.8	20.3	5.6	12.0	10.7	114.3	16.2 <sup>g</sup>	222.6
2000-01 <sup>s</sup>	kt	30.0	16.8	5.7	9.2	10.5	121.2	16.1 <sup>g</sup>	229.7
2001-02 <sup>s</sup>	kt	25.0	14.3	5.8	5.7	5.6	131.6	15.9 <sup>g</sup>	233.0
<b>Value</b>									
1980-81	\$m	127.8	88.4	23.5	9.7	17.5	53.9 <sup>h</sup>	15.9	330.2
1981-82	\$m	109.0	107.7	27.3	11.1	21.0	54.2 <sup>h</sup>	13.7 <sup>h</sup>	344.0
1982-83 <sup>s</sup>	\$m	150.3	129.7	21.0	21.4	20.3	65.5	14.3 <sup>h</sup>	422.5
1983-84 <sup>s</sup>	\$m	145.3	134.0	29.4	24.6	20.1	83.0	12.6 <sup>h</sup>	449.0
1984-85 <sup>s</sup>	\$m	164.0	172.0	35.0	20.0	29.0	88.0	14.0	522.0
1985-86 <sup>s</sup>	\$m	190.0	140.0	60.0	24.0	30.0	102.0	17.0	563.0
1986-87 <sup>s</sup>	\$m	216.0	186.0	84.0	25.0	31.0	137.0	23.0	702.0
1987-88 <sup>s</sup>	\$m	246.0	252.0	96.0	22.0	36.0	157.0	19.0	828.0
1988-89 <sup>s</sup>	\$m	274.0	280.0	86.0	21.0	38.0	215.0	19.0	1 019.0 <sup>i</sup>
1989-90 <sup>s</sup>	\$m	226.0	245.0	90.0	25.0	36.0	278.0	66.0 <sup>f</sup>	1 063.0 <sup>i</sup>
1990-91 <sup>s</sup>	\$m	262.9	287.5	92.1	42.3	43.2	269.8	66.5 <sup>g</sup>	1 193.3 <sup>i</sup>
1991-92 <sup>s</sup>	\$m	244.1	369.1	94.6	82.8	44.3	301.3	76.2 <sup>g</sup>	1 338.3 <sup>i</sup>
1992-93 <sup>s</sup>	\$m	291.3	348.8	127.5	88.1	41.2	320.7	116.2 <sup>g</sup>	1 423.5 <sup>i</sup>
1993-94 <sup>s</sup>	\$m	320.6	429.8	178.4	71.6	42.4	322.5	107.8 <sup>g</sup>	1 607.2 <sup>i</sup>
1994-95 <sup>s</sup>	\$m	368.0	450.0	144.7	65.1	47.6	336.8	129.8 <sup>g</sup>	1 745.0 <sup>i</sup>
1995-96 <sup>s</sup>	\$m	368.4	372.4	142.4	66.5	51.5	352.2	85.0 <sup>g</sup>	1 638.4 <sup>i</sup>
1996-97 <sup>s</sup>	\$m	344.3	413.2	152.5	36.7	52.0	378.3	96.0 <sup>g</sup>	1 690.5 <sup>i</sup>
1997-98 <sup>s</sup>	\$m	385.3	377.0	182.1	39.6	47.0	395.6	130.8 <sup>g</sup>	1 822.4 <sup>i</sup>
1998-99 <sup>s</sup>	\$m	416.4	438.4	172.9	37.5	45.2	441.4	221.5 <sup>g</sup>	2 106.4 <sup>i</sup>
1999-00 <sup>s</sup>	\$m	414.6	545.4	220.7	43.1	53.3	452.6	256.7 <sup>g</sup>	2 344.1 <sup>i</sup>
2000-01 <sup>s</sup>	\$m	453.5	481.1	276.1	39.6	55.1	486.0	328.8 <sup>g</sup>	2 428.1
2001-02 <sup>s</sup>	\$m	351.6	501.0	245.3	23.0	24.9	518.5	322.9 <sup>g</sup>	2 452.1

<sup>a</sup> Includes bugs for Queensland. <sup>b</sup> Excludes tuna. <sup>c</sup> Excludes those products for which no quantity data is available, eg live fish, pearls and some non-edible fisheries products. <sup>d</sup> Live weight. <sup>e</sup> Excludes production in Victoria and Queensland. <sup>f</sup> Includes an estimate of tuna production from joint venture agreements. <sup>g</sup> Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. <sup>h</sup> Excludes the value of Queensland production. <sup>i</sup> Includes pearls and other products. <sup>s</sup> ABARE estimate; the values of production are based on values to fishing operators (ABS estimates of gross value of production include certain marketing costs in some cases).

Sources: ABARE, *Australian Fisheries Statistics*, Canberra; ABS, *Fisheries, Australia*, cat. no. 7603.0, Canberra; ABARE.

## Fisheries

### 106 Australian exports of prawns, by product type and destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Headless	t	2 544	1 801	1 941	1 150	926	1 005	785
Hong Kong, China	t	234	214	450	88	47	80	14
Japan	t	1 996	1 310	1 326	821	657	654	539
Spain	t	90	78	13	119	27	0	28
United States	t	4	6	9	5	33	80	98
Other	t	166	84	70	72	108	93	75
Whole	t	10 212	8 891	10 174	10 630	10 096	10 789	10 870
China	t	654	1 560	2 248	2 081	1 662	1 231	1 414
Chinese Taipei	t	69	142	119	155	239	170	254
Hong Kong, China	t	1 389	1 117	1 422	1 132	1 140	1 899	1 777
Italy	t	33	8	40	91	72	42	24
Japan	t	5 526	4 611	4 549	4 667	4 614	4 085	4 194
Malaysia	t	548	198	0	101	176	131	180
New Zealand	t	83	187	217	197	139	190	253
Spain	t	834	454	668	1 389	1 157	1 584	915
Thailand	t	307	97	486	280	203	673	1 076
United States	t	1	9	1	3	50	138	45
Other	t	766	507	424	533	644	646	739
Other	t	345	283	272	215	608	330	270
Chinese Taipei	t	50	104	105	8	54	1	12
Japan	t	144	69	88	40	330	65	49
Singapore	t	16	24	23	13	42	22	19
United States	t	0	0	0	0	3	28	11
Other	t	89	69	42	132	155	112	161
Total	t	13 100	10 974	12 387	11 995	11 630	12 124	11 925
<b>Value</b>								
Headless	\$'000	47 201	33 237	40 543	24 854	20 540	25 162	18 607
Hong Kong, China	\$'000	2 913	2 636	6 849	1 256	704	1 338	310
Japan	\$'000	39 833	27 097	31 152	19 941	16 443	18 200	14 227
Spain	\$'000	1 155	772	229	1 579	367	0	375
United States	\$'000	124	86	245	106	920	2 048	2 445
Other	\$'000	2 284	1 183	1 054	1 234	1 266	1 395	906
Whole	\$'000	171 059	147 361	189 055	195 710	209 386	258 481	239 367
China	\$'000	7 308	18 284	33 449	34 274	25 777	20 946	23 262
Chinese Taipei	\$'000	1 245	2 610	2 567	3 077	5 985	4 694	5 440
Hong Kong, China	\$'000	19 072	15 064	20 930	18 032	18 655	36 377	32 940
Italy	\$'000	431	84	942	1 730	1 134	896	430
Japan	\$'000	111 371	93 755	105 749	101 199	123 510	133 574	129 283
Malaysia	\$'000	5 456	1 738	0	1 397	2 423	2 172	3 112
New Zealand	\$'000	797	2 017	2 510	2 426	1 745	2 604	3 223
Spain	\$'000	10 086	5 125	8 808	19 946	15 928	27 703	15 549
Thailand	\$'000	3 646	1 274	6 815	3 695	2 484	11 982	15 066
United States	\$'000	14	197	14	85	580	4 290	906
Other	\$'000	11 636	7 213	7 270	9 849	11 165	13 243	10 154
Other	\$'000	5 122	4 191	4 643	3 691	13 863	7 405	4 853
Chinese Taipei	\$'000	995	2 017	1 854	270	1 428	32	309
Japan	\$'000	2 094	847	1 577	852	9 262	3 505	1 459
Singapore	\$'000	284	328	438	295	730	481	379
United States	\$'000	0	2	6	0	86	681	372
Other	\$'000	1 055	777	507	1 841	1 917	1 510	2 271
Total	\$'000	223 382	184 790	234 240	224 254	243 789	291 048	262 827

a Product weight.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 107 Australian imports of prawns, by product type and source

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Fresh, chilled or frozen	t	7 777	8 287	8 679	9 632	10 423	10 188	11 972
China	t	212	70	41	27	81	160	381
Chinese Taipei	t	33	166	114	24	34	118	42
India	t	216	139	541	956	873	1 652	2 571
Indonesia	t	324	242	344	402	557	1 198	1 526
Malaysia	t	868	727	680	629	768	660	587
Myanmar	t	314	374	243	400	422	596	716
New Caledonia	t	225	221	245	432	306	186	184
Papua New Guinea	t	75	117	54	103	142	151	133
Singapore	t	302	370	390	175	163	232	91
Thailand	t	4 402	5 103	5 259	5 162	5 769	3 823	3 677
Viet Nam	t	607	660	553	1 059	1 081	1 256	1 840
Other	t	199	97	215	261	228	155	223
Canned	t	4 903	5 069	5 698	5 654	5 133	5 217	5 432
Malaysia	t	1 747	1 530	1 676	1 277	1 254	1 364	1 356
Thailand	t	2 451	2 631	3 049	3 488	3 126	3 082	3 097
Viet Nam	t	67	69	78	64	90	74	94
Other	t	639	840	895	825	662	696	885
Other	t	452	457	430	476	177	168	155
China	t	9	2	0	2	2	3	3
Malaysia	t	27	17	10	31	19	69	65
Thailand	t	279	295	311	265	77	66	85
Viet Nam	t	42	42	33	39	45	24	2
Other	t	95	101	76	139	35	6	1
Total	t	13 133	13 812	14 807	15 761	15 733	15 572	17 559
<b>Value</b>								
Fresh, chilled or frozen	\$'000	106 586	107 662	132 394	143 517	145 517	173 238	165 095
China	\$'000	2 372	677	469	181	985	3 468	3 362
Chinese Taipei	\$'000	538	2 575	2 109	482	730	2 601	626
India	\$'000	2 266	1 265	7 333	13 165	12 222	32 505	38 963
Indonesia	\$'000	3 631	2 764	5 122	6 215	6 926	15 776	17 934
Malaysia	\$'000	8 881	7 445	6 800	6 117	7 336	7 019	6 321
Myanmar	\$'000	314	374	243	400	422	596	716
New Caledonia	\$'000	225	221	245	432	306	186	184
Papua New Guinea	\$'000	75	117	54	103	142	151	133
Singapore	\$'000	302	370	390	175	163	232	91
Thailand	\$'000	4 402	5 103	5 259	5 162	5 769	3 823	3 677
Viet Nam	\$'000	6 446	7 528	8 089	17 921	15 085	24 825	29 554
Other	\$'000	2 869	898	3 557	3 349	3 340	2 165	2 674
Canned	\$'000	41 420	42 046	50 860	51 147	45 373	57 917	54 553
Malaysia	\$'000	13 962	11 742	13 217	9 709	9 676	12 662	12 030
Thailand	\$'000	22 577	24 173	30 258	35 067	30 995	37 910	33 392
Vietnam	\$'000	296	336	405	372	364	515	908
Other	\$'000	4 585	5 795	6 980	6 000	4 339	6 830	8 223
Other	\$'000	6 676	6 508	7 828	7 922	2 026	2 369	1 782
China	\$'000	117	11	3	12	22	10	34
Malaysia	\$'000	264	159	115	333	115	852	609
Thailand	\$'000	4 540	4 639	6 098	5 364	1 200	1 033	1 055
Viet Nam	\$'000	552	427	412	302	352	309	17
Other	\$'000	1 203	1 271	1 201	1 911	337	165	66
Total	\$'000	154 682	156 216	191 082	202 586	192 916	233 524	221 430

a Product weight.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Fisheries

### 108 Australian exports of rock lobster, by product type and destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Tails b	t	1 324	973	1 049	1 464	1 693	1 037	870
Chinese Taipei	t	215	84	8	72	82	18	5
Hong Kong, China	t	34	31	25	68	10	10	3
Japan	t	492	173	48	182	234	51	18
United States	t	539	668	963	1 113	1 331	915	831
Other	t	44	16	5	29	36	42	14
Whole c	t	10 804	11 322	11 091	12 752	13 348	11 882	9 697
Chinese Taipei	t	4 022	4 102	3 686	4 010	3 900	3 182	2 094
Hong Kong, China	t	2 846	2 750	2 280	3 219	4 691	4 658	3 983
Japan	t	3 416	3 425	3 019	3 327	3 857	3 306	2 585
Singapore	t	111	104	103	213	334	218	317
United States	t	84	58	19	151	113	215	234
Other	t	325	883	1 983	1 832	454	303	484
Other	t	166	186	122	176	448	426	374
France	t	0	0	13	62	51	16	6
Hong Kong, China	t	37	40	4	0	34	59	59
Japan	t	26	93	100	81	315	254	300
United States	t	71	1	4	14	11	26	3
Other	t	32	52	1	19	37	71	6
Total	t	12 294	12 481	12 261	14 392	15 490	13 345	10 942
<b>Value</b>								
Tails b	\$'000	50 418	49 623	63 808	76 064	95 289	60 309	65 362
Chinese Taipei	\$'000	5 719	2 375	260	1 770	2 611	654	327
Hong Kong, China	\$'000	1 263	1 358	1 209	2 542	469	600	191
Japan	\$'000	17 898	7 409	3 230	6 831	8 861	4 138	1 742
United States	\$'000	24 139	37 647	58 956	63 773	81 393	53 243	61 932
Other	\$'000	1 399	833	153	1 147	1 955	1 675	1 171
Whole c	\$'000	362 329	399 184	359 209	372 542	472 136	460 785	420 391
Chinese Taipei	\$'000	123 026	137 423	103 830	101 669	131 100	107 896	82 321
Hong Kong, China	\$'000	104 783	104 541	84 865	107 096	167 977	195 809	189 134
Japan	\$'000	116 005	117 750	88 401	89 872	141 531	124 399	105 549
Singapore	\$'000	3 829	3 700	3 626	5 760	10 556	7 297	12 863
United States	\$'000	3 267	2 651	798	5 643	5 045	13 395	10 379
Other	\$'000	11 419	33 119	77 688	62 502	15 928	11 988	20 145
Other	\$'000	4 878	4 589	1 442	2 835	10 231	11 554	6 855
France	\$'000	0	0	26	340	1 694	673	232
Hong Kong	\$'000	1 390	1 651	195	0	1 418	2 124	2 409
Japan	\$'000	245	838	1 058	1 244	5 377	6 176	3 762
United States	\$'000	2 205	14	103	859	370	1 006	266
Other	\$'000	1 038	2 085	60	391	1 372	1 575	185
Total	\$'000	417 625	453 395	424 458	451 440	577 657	532 648	492 608

a Product weight. b Fresh, chilled or frozen. c Live, fresh or chilled, frozen or cooked.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 109 Australian imports of lobster, by source

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Cuba	t	43	182	63	49	41	38	14
Malaysia	t	0	0	8	6	29	18	15
New Zealand	t	16	30	9	15	3	0	4
Papua New Guinea	t	68	41	60	48	55	71	73
Thailand	t	46	31	62	83	185	178	130
United States	t	29	48	113	53	165	36	30
Viet Nam	t	12	75	50	75	102	50	4
Other	t	64	44	71	58	75	30	51
Total	t	278	451	436	386	654	421	320
<b>Value</b>								
Cuba	\$'000	647	3 247	1 272	832	701	840	323
Malaysia	\$'000	0	0	136	44	315	254	211
New Zealand	\$'000	449	769	154	301	65	6	115
Papua New Guinea	\$'000	1 922	1 035	2 135	1 885	2 198	3 043	3 365
Thailand	\$'000	888	607	949	1 118	2 323	2 927	2 281
United States	\$'000	887	932	2 281	1 154	3 616	834	562
Viet Nam	\$'000	200	1 147	706	921	1 293	883	71
Other	\$'000	1 349	767	1 477	1 008	622	629	1 131
Total	\$'000	6 342	8 504	9 110	7 261	11 134	9 416	8 058

a Product weight.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Fisheries

### 110 Australian exports of abalone, by product type and destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Fresh, chilled or frozen	t	1 299	1 429	1 439	1 688	1 691	1 883	2 735
China	t	2	4	16	26	23	66	234
Chinese Taipei	t	85	165	209	178	201	268	312
Hong Kong, China	t	274	371	529	847	875	787	1 281
Japan	t	883	809	583	572	537	667	716
United States	t	12	8	6	11	10	12	39
Other	t	43	71	95	54	45	82	154
Prepared or preserved	t	1 670	1 511	1 564	1 707	2 118	1 660	1 275
Chinese Taipei	t	632	440	496	571	648	562	273
Hong Kong, China	t	216	408	380	456	663	496	535
Japan	t	536	416	406	328	391	304	183
Singapore	t	225	193	213	247	347	216	212
United States	t	36	34	49	56	44	34	21
Other	t	24	20	20	50	24	48	50
Total	t	2 969	2 940	3 003	3 396	3 808	3 543	4 010
<b>Value</b>								
Fresh, chilled or frozen	\$'000	61 922	75 286	81 820	86 782	102 462	133 772	181 754
China	\$'000	54	98	632	1 513	1 461	6 351	21 037
Chinese Taipei	\$'000	3 017	6 472	9 178	6 884	9 912	15 504	18 389
Hong Kong, China	\$'000	19 426	26 081	35 178	44 750	54 157	58 199	77 014
Japan	\$'000	36 346	37 614	30 125	28 782	32 525	45 718	48 364
United States	\$'000	835	474	384	797	571	1 217	3 274
Other	\$'000	2 244	4 547	6 323	4 056	3 835	6 784	13 676
Prepared or preserved	\$'000	84 753	94 300	109 896	97 839	120 953	115 505	81 374
Chinese Taipei	\$'000	30 305	27 045	34 452	33 299	33 669	26 487	17 123
Hong Kong, China	\$'000	11 613	25 774	27 094	25 949	36 007	39 936	28 283
Japan	\$'000	28 585	26 113	29 020	19 143	27 054	26 540	15 074
Singapore	\$'000	11 175	12 021	14 131	13 765	19 851	16 621	16 797
United States	\$'000	1 881	2 160	3 614	3 264	3 051	3 576	1 799
Other	\$'000	1 195	1 186	1 584	2 418	1 321	2 346	2 297
Total	\$'000	146 676	169 586	191 716	184 621	223 415	249 277	263 128

a Product weight.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 111 Australian exports of scallops, by product type and destination

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>									
Fresh, chilled or frozen	t	2 789	2 662	1 273	1 309	1 530	1 629	2 058	1 403
China	t	0	50	0	4	44	157	472	1
France	t	589	640	200	194	103	46	0	0
Hong Kong, China	t	1 569	1 246	726	813	933	1 017	1 181	971
Malaysia	t	103	131	92	46	85	90	101	103
Singapore	t	419	356	188	177	268	266	277	305
United States	t	19	8	0	16	15	0	0	0
Other	t	90	231	66	60	82	53	26	23
Other	t	121	86	52	37	40	26	87	85
Hong Kong, China	t	53	33	34	25	38	15	30	84
Other	t	69	53	18	12	1	11	57	1
Total	t	2 910	2 748	1 325	1 346	1 569	1 655	2 145	1 488
<b>Value</b>									
Fresh, chilled or frozen	\$'000	68 955	64 759	35 196	35 573	32 233	40 641	49 501	31 639
China	\$'000	0	934	0	134	1 008	1 032	3 871	11
France	\$'000	11 830	12 396	3 101	3 252	2 039	795	0	0
Hong Kong, China	\$'000	42 036	33 513	22 605	24 487	20 133	28 688	33 506	21 270
Malaysia	\$'000	2 408	3 354	2 639	1 148	1 604	2 261	2 994	2 471
Singapore	\$'000	10 346	9 009	5 514	5 116	5 424	6 608	8 317	7 389
United States	\$'000	346	221	3	234	290	0	0	0
Other	\$'000	1 989	5 331	1 335	1 201	1 735	1 257	814	498
Other	\$'000	3 161	2 353	1 374	818	1 002	1 371	3 904	2 794
Hong Kong, China	\$'000	1 552	884	1 027	668	932	1 009	2 694	2 782
Other	\$'000	1 610	1 468	347	150	70	362	1 210	12
Total	\$'000	72 117	67 111	36 570	36 391	33 236	42 012	53 405	34 433

a Product weight.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



## Fisheries

### 112 Australian exports of fish, by product type and destination <sup>a</sup>

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity <sup>b</sup></b>								
Live fish	t	na	na	na	na	na	na	na
Whole	t	8 313	8 370	9 344	10 198	8 079	7 463	10 683
China	t	406	176	182	592	2 221	1 238	1 760
Chinese Taipei	t	801	491	355	203	343	137	142
Germany	t	192	285	192	147	143	165	76
Japan	t	3 050	3 097	3 171	4 535	1 941	2 108	3 288
Saudi Arabia	t	87	187	266	165	106	60	135
Singapore	t	397	307	245	317	323	724	562
Thailand	t	1 512	1 448	2 160	1 415	940	1 117	1 057
United States	t	166	690	917	1 073	332	338	1 031
Other	t	1 703	1 689	1 856	1 750	1 729	1 577	2 632
Fillets	t	2 671	2 421	3 914	5 343	4 925	3 308	3 996
Japan	t	327	596	792	1 121	1 450	1 368	807
Thailand	t	1 009	234	90	573	238	13	0
United States	t	562	674	1 593	2 241	1 997	886	1 461
Other	t	773	917	1 438	1 408	1 241	1 040	1 728
Smoked, dried or salted	t	156	340	578	197	394	291	178
Canned	t	335	271	451	69	404	305	611
Other	t	1 305	1 796	2 169	1 871	1 170	1 907	2 048
Chinese Taipei	t	207	242	148	153	139	178	156
Japan	t	95	68	389	248	73	87	80
New Zealand	t	207	260	388	314	227	97	66
Other	t	796	1 226	1 243	1 155	731	1 546	1 746
<b>Total</b>	<b>t</b>	<b>12 793</b>	<b>13 234</b>	<b>16 472</b>	<b>17 698</b>	<b>15 000</b>	<b>13 341</b>	<b>17 544</b>
<b>Value</b>								
Live fish	\$'000	15 655	14 657	16 028	13 313	23 593	41 585	47 271
Whole	\$'000	53 602	55 136	54 135	71 411	40 622	44 320	64 315
China	\$'000	1 122	340	950	3 612	2 483	425	4 340
Chinese Taipei	\$'000	8 262	5 374	3 385	1 611	4 071	1 708	2 092
Germany	\$'000	2 015	3 094	1 924	1 435	1 326	1 254	726
Japan	\$'000	28 673	27 703	24 941	40 366	15 919	21 947	25 484
Saudi Arabia	\$'000	93	181	266	174	55	69	161
Singapore	\$'000	2 431	1 430	1 245	2 349	2 462	2 912	2 315
Thailand	\$'000	2 996	3 233	4 392	2 997	2 868	2 950	2 536
United States	\$'000	1 179	4 225	7 346	10 828	3 099	3 764	9 838
Other	\$'000	6 831	9 555	9 687	8 040	8 339	9 290	16 822
Fillets	\$'000	16 233	18 636	32 325	49 099	41 635	25 334	27 385
Japan	\$'000	2 063	4 831	6 818	9 702	11 134	9 074	3 420
Thailand	\$'000	1 991	469	190	1 194	615	52	2
United States	\$'000	7 148	7 571	19 668	30 424	24 848	11 373	15 763
Other	\$'000	5 030	5 765	5 649	7 779	5 038	4 836	8 199
Smoked, dried or salted	\$'000	7 369	10 197	10 159	6 869	14 019	15 703	15 958
Canned	\$'000	1 645	1 723	896	334	2 274	2 183	3 946
Other	\$'000	16 960	15 060	15 809	13 327	11 607	17 297	17 111
Chinese Taipei	\$'000	8 275	5 307	4 065	2 702	3 241	3 224	3 583
Japan	\$'000	2 930	1 894	3 017	3 301	2 078	3 058	3 082
New Zealand	\$'000	1 189	1 586	2 064	1 501	279	250	268
Other	\$'000	4 566	6 272	6 662	5 823	6 009	10 765	10 178
<b>Total</b>	<b>\$'000</b>	<b>111 465</b>	<b>115 409</b>	<b>129 352</b>	<b>154 353</b>	<b>133 750</b>	<b>146 423</b>	<b>175 987</b>

<sup>a</sup> Excludes tuna. <sup>b</sup> Product weight. **na** Not available.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 113 Australian imports of fish, by product type and source

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity a</b>								
Live	t	na	na	na	na	na	na	na
Fresh, chilled or frozen	t	45 941	55 009	56 273	57 433	54 033	51 701	55 439
Whole	t	15 583	24 227	21 771	21 280	15 415	14 432	18 321
New Zealand	t	7 348	9 189	8 137	8 088	8 290	8 678	9 188
Fillets	t	30 358	30 782	34 502	36 152	38 619	37 268	37 118
Chile	t	3 968	3 669	4 013	4 228	4 505	3 358	3 492
New Zealand	t	9 285	10 098	13 841	14 172	12 010	13 004	12 967
South Africa	t	2 082	2 250	5 175	5 848	5 868	5 793	6 139
Uganda	t	1 250	952	1 184	1 227	3 844	3 530	1 826
Smoked, dried or salted	t	2 871	3 010	2 727	4 081	4 706	2 941	2 151
South Africa	t	1 025	1 031	1 050	1 673	1 384	1 052	453
Denmark	t	239	312	457	476	357	303	534
Thailand	t	96	41	60	873	1 744	535	55
Canned	t	26 777	26 976	26 600	29 328	33 027	40 597	35 874
Canada	t	4 125	3 278	3 123	3 859	3 398	3 451	3 708
Thailand	t	12 279	12 589	12 660	15 328	18 072	23 717	21 713
United States	t	5 367	5 901	5 845	5 144	5 552	7 367	4 425
Other fish preparations	t	7 222	5 387	5 370	6 909	9 521	10 852	11 614
Japan	t	421	396	389	342	271	237	232
New Zealand	t	3 138	1 748	1 577	2 363	3 400	4 055	4 097
Thailand	t	2 504	2 549	2 515	2 741	3 112	3 375	3 883
Total	t	82 810	90 382	90 969	97 751	102 147	108 639	107 599
<b>Value</b>								
Live	\$'000	0	9	1	0	54	22	35
Fresh, chilled or frozen	\$'000	169 852	184 930	204 690	215 714	232 994	238 436	270 495
Whole	\$'000	44 475	58 961	58 024	57 585	54 864	51 409	60 903
New Zealand	\$'000	26 215	30 375	29 207	30 888	34 550	34 520	36 391
Fillets	\$'000	125 377	125 969	146 667	158 130	178 130	187 027	209 592
Chile	\$'000	9 803	8 738	10 462	13 104	14 837	12 380	12 524
New Zealand	\$'000	40 842	45 116	57 087	62 486	65 330	70 307	75 632
South Africa	\$'000	8 248	8 429	21 157	25 077	26 156	28 393	32 013
Uganda	\$'000	5 775	4 100	5 189	5 156	14 416	12 611	12 332
Smoked, dried or salted	\$'000	20 862	21 012	22 038	31 003	28 496	23 164	24 792
South Africa	\$'000	3 668	4 054	4 024	6 563	5 571	4 728	2 495
Denmark	\$'000	4 359	4 900	6 685	8 351	5 827	4 915	9 564
Thailand	\$'000	476	349	371	3 712	5 489	1 524	474
Canned	\$'000	126 263	117 592	142 401	164 910	158 374	188 628	176 996
Canada	\$'000	28 853	18 901	20 268	26 392	22 434	25 207	20 797
Thailand	\$'000	43 858	45 310	55 441	70 210	67 207	82 012	97 945
United States	\$'000	25 281	24 081	35 312	33 445	31 485	38 248	21 174
Other fish preparations	\$'000	32 754	24 964	26 026	30 695	40 471	50 542	56 351
Japan	\$'000	2 997	2 530	2 910	2 675	2 810	2 399	2 589
New Zealand	\$'000	12 422	5 537	5 414	8 142	13 077	15 702	17 519
Thailand	\$'000	10 346	10 700	10 736	11 127	12 353	15 129	16 700
Total	\$'000	349 731	348 507	395 157	442 322	463 275	509 207	536 701

a Product weight. na Not available.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Fisheries

### 114 Australian imports of canned seafood products, by product type

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity</b>								
Anchovies	t	606	747	992	637	754	671	654
Herrings	t	904	1 011	901	887	1 115	784	1 117
Salmon	t	8 718	8 092	8 092	7 856	8 046	11 590	8 141
Sardines	t	2 800	3 228	3 226	3 695	4 758	4 769	4 115
Tuna	t	11 142	11 092	11 331	14 454	16 898	21 507	20 347
Mackerel	t	786	1 078	950	840	1 059	817	930
Other	t	1 822	1 728	1 109	959	397	460	569
Total fish	t	26 777	26 976	26 600	29 328	33 027	40 597	35 874
Crabs a	t	299	242	272	255	475	323	302
Prawns a	t	4 903	5 069	5 698	5 654	5 133	5 217	5 432
Smoked molluscs a	t	589	752	737	826	834	853	542
Other molluscs a	t	489	542	570	652	535	547	285
Total crustaceans and molluscs	t	6 280	6 606	7 278	7 387	6 976	6 939	6 561
<b>Total</b>	t	33 057	33 581	33 878	36 714	40 004	47 536	42 435
<b>Value</b>								
Anchovies	\$'000	6 204	6 592	7 438	6 979	7 353	7 514	7 168
Herrings	\$'000	3 865	4 315	4 133	4 352	4 093	3 385	4 552
Salmon	\$'000	50 928	40 419	54 849	59 579	53 637	71 080	43 145
Sardines	\$'000	15 140	16 328	17 770	18 263	22 559	25 365	22 641
Tuna	\$'000	41 349	41 489	51 105	68 505	66 217	76 348	93 822
Mackerel	\$'000	2 273	2 390	2 350	2 814	2 784	2 591	2 975
Other	\$'000	6 503	6 059	4 755	4 417	1 730	2 346	2 692
Total fish	\$'000	126 263	117 592	142 401	164 910	158 374	188 628	176 996
Crabs a	\$'000	2 385	1 805	2 153	2 017	3 918	3 027	2 678
Prawns a	\$'000	41 420	42 046	50 860	51 147	45 373	57 917	54 553
Smoked molluscs a	\$'000	6 137	7 343	7 636	6 607	7 745	10 820	7 164
Other molluscs a	\$'000	1 996	3 003	3 526	3 429	2 630	2 770	2 418
Total crustaceans and molluscs	\$'000	51 937	54 196	64 175	63 200	59 667	74 533	66 813
<b>Total</b>	\$'000	178 200	171 788	206 576	228 110	218 040	263 161	243 809

a Includes preserved products not in cans.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 115 Summary statistics for the Australian processed food industry

	Establishments at 30 June a		Employment at 30 June b		Wages and salaries c		Turnover		Industry value added	
	1998-99 no.	1999-00 no.	1998-99 '000	1999-00 '000	1998-99 \$m	1999-00 \$m	1998-99 \$m	1999-00 \$m	1998-99 \$m	1999-00 \$m
<b>Meat</b>										
Meat processing	279	292	30	28	1 013	948	6 868	7 038	1 554	1 523
Poultry processing	136	155	13	13	415	439	2 405	2 543	681	750
Bacon, ham and smallgoods	136	160	8	7	226	227	1 404	1 377	419	353
Total	551	607	51	47	1 654	1 614	10 678	10 958	2 654	2 626
<b>Dairy</b>										
Milk and cream processing	39	57	6	6	275	270	2 798	3 027	596	640
Ice cream	72	32	3	3	111	98	690	728	204	172
Other dairy products	100	118	8	9	368	403	4 362	4 593	857	1 060
Total	211	207	17	17	754	771	7 849	8 348	1 657	1 872
<b>Fruit and vegetables</b>	264	300	11	11	446	457	3 532	3 632	924	975
<b>Oil and fat</b>	52	60	2	1	85	84	1 048	934	225	226
<b>Flour mill and cereal food</b>										
Flour mill products	42	45	2	2	103	106	1 273	1 373	278	328
Cereal food and baking mixes	183	168	6	6	206	192	2 089	2 188	669	724
Total	225	213	8	8	309	298	3 361	3 561	946	1 052
<b>Bakery products</b>										
Bread	58	251	9	10	371	376	1 309	1 371	475	537
Cakes and pastry products	606	465	9	10	256	263	1 071	1 078	388	401
Biscuits	11	14	5	5	154	128	1 031	991	515	370
Total	675	730	23	25	781	767	3 411	3 440	1 379	1 308
<b>Other food</b>										
Sugar	22	27	7	6	260	247	2 479	1 996	594	424
Confectionery	123	201	6	6	264	271	1 469	1 542	616	608
Seafood	126	111	4	4	100	103	1 111	1 269	195	270
Prepared animal and bird feed	169	202	4	5	186	229	2 549	2 506	520	487
Food nec	501	318	15	14	555	526	3 145	3 164	1 011	954
Total	941	859	36	35	1 364	1 376	10 753	10 477	2 935	2 743
<b>Beverage and malt</b>										
Soft drink, cordial and syrup	101	110	6	6	263	255	2 589	2 702	807	722
Beer and malt	40	33	3	3	165	170	2 518	2 461	892	819
Wine	312	286	9	9	268	310	3 323	3 575	1 326	1 502
Spirits	18	11	0	0	10	8	193	234	50	71
Total	471	440	18	18	707	743	8 624	8 972	3 074	3 114
<b>Total food and beverages</b>	<b>3 390</b>	<b>3 416</b>	<b>166</b>	<b>163</b>	<b>6 099</b>	<b>6 110</b>	<b>49 256</b>	<b>50 321</b>	<b>13 794</b>	<b>13 916</b>

a Statistical data collection units that do not necessarily represent a separate physical unit. b Includes working proprietors. c Excludes drawings of working proprietors.

Sources: ABS, *Manufacturing Industry*, cat. no. 8221.0, Canberra; ABS unpublished data, Canberra.

## Food

### 116 Australian food exports, by level of transformation

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Minimally transformed</b>								
Live animals except fish	387	574	621	532	528	625	753	938
Fish or shellfish	384	435	445	446	453	524	651	700
<b>Horticulture</b>								
Vegetables	188	187	177	209	218	191	201	218
Fruit and nuts	260	287	348	359	372	396	476	561
Total	449	474	525	568	590	587	677	779
<b>Grains a</b>	1 961	4 236	5 231	4 267	4 193	4 208	5 239	5 874
Oilseeds	104	201	198	364	683	798	721	752
Food nec	30	39	34	37	88	54	81	59
<b>Substantially transformed</b>								
<b>Meat</b>								
Meat processing	3 650	3 281	2 943	3 714	3 986	4 440	5 770	6 215
Poultry processing	13	14	14	18	23	21	26	26
Bacon, ham and smallgoods	80	71	69	64	61	86	65	80
Total	3 744	3 366	3 027	3 795	4 070	4 548	5 862	6 320
<b>Seafood</b>	751	671	636	731	769	1 006	1 045	944
<b>Dairy</b>								
Milk and cream processing	721	872	899	897	1 056	1 126	1 550	1 650
Ice cream	37	41	44	47	41	36	34	32
Other dairy products	692	794	852	1 008	1 193	1 305	1 486	1 592
Total	1 450	1 707	1 795	1 952	2 291	2 467	3 070	3 275
<b>Fruit and vegetables</b>	396	469	491	436	480	522	566	656
<b>Oil and fat</b>	82	95	104	167	170	131	129	147
<b>Flour mill and cereal food</b>								
Flour mill products	113	143	158	174	204	209	207	233
Cereal food and baking mixes	403	446	438	528	513	529	544	400
Total	516	589	596	702	717	738	751	632
<b>Bakery products</b>								
Bread, cakes and pastry products	14	16	15	9	8	17	12	3
Biscuits	45	58	72	83	79	69	73	92
Total	60	74	87	92	86	86	85	95
<b>Other food</b>								
Sugar a	1 657	1 595	1 595	1 742	1 377	1 111	1 236	1 440
Confectionery	149	194	170	162	176	230	261	287
Food nec	511	603	767	788	734	900	1 087	1 148
Total	2 318	2 392	2 532	2 692	2 288	2 241	2 585	2 875
<b>Beverages and malt</b>								
Soft drink, cordial and syrup	31	59	34	28	23	26	45	30
Beer and malt	166	204	215	216	207	213	266	317
Wine	386	474	604	874	1 068	1 374	1 753	2 105
Spirit	27	27	29	31	38	55	73	81
Total	610	764	883	1 150	1 336	1 667	2 136	2 533
<b>Total food and beverages</b>								
Minimally transformed	3 315	5 959	7 053	6 214	6 536	6 796	8 177	8 983
Substantially transformed	9 723	9 880	9 914	10 982	10 671	12 077	14 768	15 788
Elaborately transformed	202	246	238	232	247	273	302	336
Total	13 239	16 085	17 205	17 428	17 455	19 147	23 247	25 107

a Includes ABARE estimates where ABS confidentiality restrictions apply.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 117 Australian food exports, to selected regions

	Asia		European Union		NAFTA	
	2000-01 \$m	2001-02 \$m	2000-01 \$m	2001-02 \$m	2000-01 \$m	2001-02 \$m
<i>Minimally transformed</i>						
Live animals except fish	302	358	1	1	5	9
Fish or shellfish	621	663	5	6	25	29
<i>Horticulture</i>						
Vegetables	165	171	13	23	0	0
Fruit and nuts	353	436	28	23	46	49
Total	518	607	42	46	46	49
<i>Grains a</i>	2 507	2 635	159	173	1	1
<i>Oilseeds</i>	495	619	140	43	76	82
<i>Food nec</i>	22	29	6	7	8	4
<i>Substantially transformed</i>						
<i>Meat</i>						
Meat processing	2 871	2 736	240	238	2 094	2 575
Poultry processing	8	9	1	1	0	0
Bacon, ham and smallgoods	47	58	5	3	1	2
Total	2 926	2 803	247	243	2 095	2 577
<i>Seafood</i>	880	791	43	30	106	106
<i>Dairy</i>						
Milk and cream processing	1 219	1 272	5	3	57	28
Ice cream	23	22	0	0	0	0
Other dairy products	743	871	174	80	173	213
Total	1 985	2 165	179	83	230	242
<i>Fruit and vegetables</i>	232	303	72	81	69	65
<i>Oil and fat</i>	79	90	3	3	3	3
<i>Flour mill and cereal food</i>						
Flour mill products	113	129	1	1	61	61
Cereal food and baking mixes	94	61	7	5	2	3
Total	207	190	8	6	62	64
<i>Bakery products</i>						
Bread, cakes and pastry products	6	1	1	0	0	0
Biscuits	12	20	2	3	2	5
Total	18	22	2	4	2	5
<i>Other food</i>						
Sugar a	834	973	2	1	233	274
Confectionery	177	183	1	1	12	12
Food nec	626	642	51	35	60	34
Total	1 637	1 797	53	37	306	321
<i>Beverages and malt</i>						
Soft drink, cordial and syrup	9	10	1	0	2	0
Beer and malt	215	257	2	7	1	1
Wine	94	109	935	1 077	594	780
Spirit	46	50	4	4	1	7
Total	365	426	942	1 089	598	788
<i>Total food and beverage</i>						
Minimally transformed	2 729	3 092	265	146	161	175
Substantially transformed	9 916	10 253	1 546	1 568	3 232	3 888
Elaborately transformed	149	153	4	6	15	18
Total	12 794	13 499	1 815	1 721	3 407	4 081

a Includes ABARE estimates where ABS confidentiality restrictions apply.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Food

### 118 Australian food imports, by level of transformation

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<i>Minimally transformed</i>								
Live animals except fish	24	19	12	13	1	1	0	1
Fish or shellfish	21	25	25	30	31	35	37	37
<i>Horticulture</i>								
Vegetables	13	17	16	19	24	27	26	24
Fruit and nuts	70	79	77	90	94	99	110	117
Total	83	96	93	109	118	126	136	141
<i>Grains</i>	57	14	1	3	1	1	0	0
<i>Oilseeds</i>	51	52	38	40	29	23	24	21
<i>Food nec</i>	186	167	141	186	172	155	115	86
<i>Substantially transformed</i>								
<i>Meat</i>								
Meat processing	33	30	50	42	51	133	105	206
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	24	26	29	33	28	29	31	36
Total	57	56	79	75	79	161	136	242
<i>Seafood</i>	589	579	584	666	720	751	843	865
<i>Dairy</i>								
Milk and cream processing	17	23	19	25	33	29	37	29
Ice cream	8	5	13	15	33	17	21	15
Other dairy products	155	176	172	188	207	230	261	277
Total	180	204	204	228	273	276	319	321
<i>Fruit and vegetables</i>	532	575	590	620	715	719	753	812
<i>Oil and fat</i>	233	267	258	253	288	271	275	280
<i>Flour mill and cereal food</i>								
Flour mill products	109	63	71	55	48	79	77	22
Cereal food and baking mixes	78	96	111	141	149	139	196	226
Total	187	159	182	196	197	219	273	248
<i>Bakery products</i>								
Bread, cakes and pastry products	39	41	49	63	76	81	92	57
Biscuits	46	51	55	58	62	80	82	106
Total	86	92	103	120	138	161	174	163
<i>Other food</i>								
Sugar	11	7	7	7	9	11	12	16
Confectionery	141	155	183	215	208	213	224	222
Food nec	462	487	498	618	729	757	858	923
Total	614	649	688	841	945	981	1 094	1 160
<i>Beverages and malt</i>								
Soft drink, cordial and syrup	215	246	252	286	276	330	405	421
Beer and malt	19	21	26	32	44	42	52	66
Wine	61	61	67	94	103	114	92	116
Spirit	186	189	191	216	232	252	330	351
Total	481	517	536	627	654	737	880	954
<i>Total food and beverages</i>								
Minimally transformed	423	371	310	380	352	342	313	287
Substantially transformed	2 836	2 962	3 132	3 507	3 893	4 140	4 604	4 874
Elaborately transformed	122	136	91	117	117	136	143	172
Total	3 381	3 470	3 533	4 005	4 361	4 618	5 059	5 333

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 119 Australian food imports from selected regions

	Asia		European Union		NAFTA	
	2000-01	2001-02	2000-01	2001-02	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m
<i>Minimally transformed</i>						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	2	2	0	0	0	0
<i>Horticulture</i>						
Vegetables	12	12	1	1	4	4
Fruit and nuts	10	16	9	8	31	34
Total	23	28	10	9	35	38
Grains	0	0	0	0	0	0
Oilseeds	15	14	0	0	5	5
Food nec	45	35	3	3	2	2
<i>Substantially transformed</i>						
<i>Meat</i>						
Meat processing	0	0	41	88	57	112
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	1	1	5	5	12	14
Total	1	1	46	93	69	126
Seafood	489	500	36	35	69	51
<i>Dairy</i>						
Milk and cream processing	0	0	2	2	0	0
Ice cream	4	2	5	3	1	1
Other dairy products	1	1	63	67	6	6
Total	4	3	70	72	7	7
Fruit and vegetables	219	225	145	173	130	114
Oil and fat	110	117	132	115	4	4
<i>Flour mill and cereal food</i>						
Flour mill products	5	6	6	3	59	5
Cereal food and baking mix	102	97	62	67	13	27
Total	106	103	68	70	72	32
<i>Bakery products</i>						
Bread, cakes and pastry products	23	20	26	15	26	8
Biscuits	34	42	25	33	6	10
Total	57	61	51	48	32	18
<i>Other food</i>						
Sugar	5	6	2	2	3	4
Confectionery	30	36	88	87	42	21
Food nec	266	387	165	219	45	91
Total	301	429	254	308	89	116
<i>Beverages and malt</i>						
Soft drink, cordial and syrup	8	13	48	265	13	19
Beer and malt	2	3	37	45	10	13
Wine	0	0	67	76	1	1
Spirit	2	2	170	187	95	107
Total	13	18	322	573	118	140
<i>Total food and beverages</i>						
Minimally transformed	85	78	13	12	42	45
Substantially transformed	1 265	1 416	1 086	1 434	569	593
Elaborately transformed	36	42	38	53	23	15
Total	1 386	1 536	1 137	1 499	633	653

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



## Food

### 120 World food imports, by level of transformation <sup>a</sup>

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<i>Minimally transformed</i>						
Live animals except fish	9 534	8 447	8 642	8 683	8 605	2.1
<b>Fish or shellfish</b>						
Fish, live or fresh	23 483	23 233	23 007	24 701	24 659	5.7
Fish, dried, salted or smoked	2 828	2 546	2 597	2 694	2 684	0.6
Shellfish	17 315	17 054	16 554	17 301	18 947	4.2
<b>Horticulture</b>						
Vegetables	21 775	20 441	21 872	21 419	19 942	5.0
Fruit and nuts	32 456	32 025	31 798	32 034	29 621	7.5
<b>Cocoa</b>	6 110	5 743	6 391	5 960	4 556	1.4
<b>Eggs, albumin</b>	1 639	1 584	1 483	1 336	1 296	0.4
<b>Grains and oilseeds</b>						
Barley	3 579	2 449	2 188	2 405	2 840	0.6
Maize	12 199	10 102	9 320	8 916	8 644	2.3
Oilseeds, not soft oil	856	945	917	749	665	0.2
Oilseeds, soft oil	14 963	15 925	14 572	13 458	14 691	3.5
Rice	7 037	5 982	7 841	7 093	5 289	1.6
Wheat or meslin	19 473	17 762	15 051	14 386	12 925	3.8
Other cereal grains, nec	2 446	1 703	1 511	1 498	1 625	0.4
<i>Substantially transformed</i>						
<b>Meat</b>						
Beef, fresh, chilled or frozen	12 882	13 293	13 228	13 923	13 685	3.2
Meat, fresh, chilled or frozen	25 210	23 231	21 699	21 489	22 560	5.4
Meat or offal, preserved	1 888	1 748	1 563	1 546	1 718	0.4
Meat or offal, preserved, nec	5 319	5 195	5 200	5 184	5 168	1.2
<b>Dairy</b>						
Milk products, excluding butter and cheese	13 323	12 649	13 016	13 081	12 741	3.1
Butter and cheese	3 193	3 225	3 216	2 850	2 565	0.7
Cheese and curd	10 688	9 785	10 052	10 136	9 176	2.4
<b>Fish or shellfish</b>	9 285	9 158	9 168	9 285	9 471	2.2
<b>Cereal products</b>						
Flour or meal from wheat or meslin	1 701	1 546	1 179	983	939	0.3
Cereal flour or meal, nec	420	419	400	399	341	0.1
Cereal etc flour or starch	13 375	12 798	13 224	13 428	12 870	3.1
<b>Horticulture</b>						
Vegetables, prepared or preserved	9 825	9 481	9 861	10 436	9 562	2.3
Fruit, prepared or preserved	6 399	6 356	6 384	6 540	6 179	1.5
Fruit or vegetable juices	6 811	5 991	6 255	6 863	6 494	1.5
<b>Sugar and confectionery</b>						
Sugar, molasses and honey	15 270	13 850	13 265	12 024	10 128	3.1
Sugar confectionery	3 694	3 715	3 646	3 822	3 832	0.9
Chocolate and cocoa preparations	6 871	6 708	6 735	6 689	6 435	1.6

*Continued*

# 120

World food imports, by level of transformation <sup>a</sup> (continued)

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<b>Animal and vegetable oil</b>						
Margarine and shortening	1 055	1 196	1 258	1 242	1 204	0.3
Animal oil or fat	2 136	2 048	2 046	1 779	1 571	0.5
Vegetable oil or fat, fixed, soft	10 580	11 461	12 374	10 322	7 251	2.5
Vegetable oils, fixed, not soft	7 570	7 596	8 696	7 808	5 353	1.8
Animal or vegetable oils, processed	2 937	2 781	3 032	3 052	2 680	0.7
<b>Other food</b>						
Coffee and coffee substitutes	14 327	17 538	16 379	13 287	12 144	3.5
Tea and mate	2 440	2 582	2 938	2 736	2 598	0.6
Spices	2 020	2 288	2 403	2 591	2 533	0.6
Edible products, nec	16 496	16 473	16 938	17 478	16 808	4.0
<b>Beverage</b>						
Beverages, nonalcoholic, nec	3 802	3 954	4 158	4 696	4 737	1.0
Alcoholic beverages	26 260	27 302	28 411	29 394	28 477	6.7
<b>Animal feed <sup>c</sup></b>	24 666	24 701	22 223	19 705	20 716	5.3
<b>Total</b>	<b>436 135</b>	<b>425 007</b>	<b>422 690</b>	<b>415 399</b>	<b>396 924</b>	<b>100.0</b>

<sup>a</sup> Based on over 100 reporting countries representing more than 90 per cent of world trade. <sup>b</sup> Average, 1996–2000. <sup>c</sup> Excludes unmilled cereal.

Sources: International Trade Centre, UNCTAD/WTO, [www.intracen.org/itc/infobase/data/chap32/imp\\_cat.htm](http://www.intracen.org/itc/infobase/data/chap32/imp_cat.htm); ABARE.

## Food

### 121 World trade in processed foods, by major exporting countries <sup>a</sup>

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<b>Meat</b>						
Australia	2 263	2 554	2 457	2 685	2 913	5.9
Denmark	3 995	4 018	3 575	3 345	3 335	8.4
France	4 317	4 218	3 871	3 664	3 421	8.9
Netherlands	5 303	4 645	4 290	4 519	4 294	10.6
United States	6 958	6 894	6 411	6 340	7 305	15.5
Other	22 665	23 042	21 798	21 740	21 514	50.7
Total	45 502	45 371	42 402	42 294	42 782	100.0
<b>Dairy</b>						
Australia	1 373	1 356	1 339	1 420	1 573	5.1
France	4 402	4 176	4 089	4 011	3 803	14.7
Germany	5 199	4 816	4 879	4 519	4 093	16.9
Netherlands	4 355	3 488	3 742	3 411	3 118	13.0
New Zealand	2 326	2 406	2 134	2 009	2 125	7.9
Other	11 985	11 765	12 123	11 609	11 534	42.4
Total	29 639	28 007	28 307	26 978	26 246	100.0
<b>Seafood</b>						
Australia	78	99	71	80	94	1.0
China	1 131	1 054	923	1 022	1 391	12.4
Denmark	483	439	463	436	397	5.0
Korea, Rep. of	417	375	287	311	312	3.8
Thailand	1 611	1 882	1 876	2 016	2 058	21.3
Other	4 993	5 230	5 146	4 929	4 762	56.5
Total	8 714	9 078	8 766	8 794	9 014	100.0
<b>Horticulture</b>						
Australia	156	150	139	148	138	0.7
China	1 391	1 397	1 390	1 501	1 685	6.7
Italy	1 812	1 626	1 745	1 775	1 515	7.7
Netherlands	2 257	1 882	1 913	2 193	1 885	9.2
United States	2 246	2 368	2 393	2 448	2 378	10.8
Other	14 606	13 778	14 487	14 772	13 455	64.9
Total	22 469	21 200	22 067	22 838	21 057	100.0
<b>Beverages <sup>c</sup></b>						
Australia	508	593	658	848	991	2.2
France	8 087	8 277	8 834	9 014	8 104	25.5
Germany	1 971	1 721	1 704	1 829	1 512	5.3
Italy	2 893	2 744	3 022	3 249	2 987	9.0
United Kingdom	4 913	5 388	4 786	4 712	4 619	14.7
Other	13 861	14 248	13 874	14 802	15 003	43.3
Total	32 234	32 972	32 878	34 453	33 216	100.0
<b>Sugar and confectionery</b>						
Australia	1 397	1 377	977	963	874	4.9
Belgium–Luxembourg	1 794	1 708	1 747	1 665	1 737	7.6
Brazil	1 735	1 919	2 082	2 062	1 359	8.1
France	3 144	2 526	2 455	2 225	2 066	10.9
Germany	2 826	2 472	2 463	2 176	1 874	10.4
Other	15 387	14 751	13 014	11 316	11 575	58.1
Total	26 284	24 753	22 738	20 407	19 485	100.0

*Continued*

# 121

## World trade in processed foods, by major exporting countries <sup>a</sup> (continued)

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<b>Animal and vegetable oil</b>						
Argentina	1 902	2 236	2 751	2 347	1 691	8.7
Australia	238	263	293	254	220	1.0
Malaysia	4 776	4 775	5 574	4 911	3 515	18.7
Netherlands	1 764	1 738	1 915	1 719	1 224	6.6
United States	1 880	2 225	2 815	2 012	1 503	8.3
Other	14 487	16 254	15 423	13 643	11 460	56.6
Total	25 047	27 491	28 769	24 886	19 613	100.0
<b>Animal feed <sup>d</sup></b>						
Argentina	2 367	2 404	2 006	2 049	2 433	10.6
Australia	390	413	331	403	565	2.0
Brazil	2 930	2 842	1 800	1 587	1 716	10.2
Netherlands	2 229	2 080	1 803	1 670	1 670	8.9
United States	4 338	4 782	4 206	3 526	3 975	19.6
Other	11 574	11 691	10 186	9 409	9 081	48.8
Total	23 828	24 212	20 332	18 643	19 440	100.0
<b>Cereal products</b>						
Australia	304	318	279	280	275	1.8
Belgium–Luxembourg	1 370	1 402	1 396	1 447	1 308	8.4
France	2 066	1 913	1 817	1 672	1 540	10.9
Germany	1 660	1 630	1 630	1 570	1 503	9.7
Italy	2 109	1 980	1 987	1 852	1 704	11.7
Other	9 935	9 989	9 289	9 134	9 032	57.5
Total	17 445	17 231	16 397	15 955	15 360	100.0
<b>Other processed food</b>						
Australia	178	193	164	202	232	0.6
Brazil	2 291	3 321	2 854	2 778	2 258	7.9
France	2 575	2 608	2 192	1 544	1 419	6.0
Netherlands	1 735	1 703	1 577	1 618	1 638	4.8
United States	2 563	2 858	2 798	3 044	3 204	8.4
Other	24 162	26 376	26 613	24 805	22 396	72.3
Total	33 503	37 058	36 198	33 991	31 146	100.0
<b>All processed food</b>						
Australia	6 884	7 316	6 708	7 281	7 874	2.8
France	27 901	26 961	26 567	25 242	23 269	10.2
Germany	21 109	19 945	20 908	19 612	17 390	7.7
Netherlands	21 989	19 390	18 551	18 858	17 365	7.5
United States	22 201	23 670	23 175	22 028	23 184	8.9
Other	164 581	170 091	163 751	156 974	148 920	62.9
Total	264 665	267 373	259 660	249 995	238 002	100.0

<sup>a</sup> Based on over 100 reporting countries representing more than 90 per cent of world trade. <sup>b</sup> Average, 1996–2000. <sup>c</sup> Alcoholic and nonalcoholic. <sup>d</sup> Excludes unmilled cereal.

Sources: International Trade Centre UNCTAD/WTO, [www.intracen.org/itc/infobase/data/chap33/exp\\_cat.htm](http://www.intracen.org/itc/infobase/data/chap33/exp_cat.htm); ABARE.

## Food

# 122 Value of world trade in processed foods, by major importing countries <sup>a</sup>

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<b>Meat</b>						
Australia	43	52	37	64	99	0.1
Germany	5 852	5 016	4 778	4 253	3 589	10.9
Italy	3 633	3 447	3 512	3 208	3 030	7.8
Japan	9 373	7 584	6 759	7 813	8 551	18.6
United Kingdom	3 937	3 678	3 354	3 474	3 590	8.4
Other	22 461	23 689	23 250	23 329	24 273	54.2
Total	45 299	43 467	41 689	42 141	43 131	100.0
<b>Dairy</b>						
Australia	154	141	148	173	166	0.6
Belgium-Luxembourg	2 265	1 975	2 129	2 064	1 972	8.0
Germany	3 627	3 376	3 328	3 351	2 551	12.5
Italy	2 993	2 731	2 759	2 657	2 370	10.4
Netherlands	2 280	1 969	1 943	1 982	1 846	7.7
Other	15 884	15 467	15 976	15 840	15 577	60.7
Total	27 204	25 660	26 284	26 068	24 482	100.0
<b>Seafood</b>						
Australia	175	160	165	173	172	1.8
France	774	698	793	614	609	7.5
Japan	2 419	2 382	1 904	2 105	2 499	24.4
United Kingdom	851	838	898	804	714	8.9
United States	1 074	1 241	1 431	1 690	1 821	15.6
Other	3 992	3 840	3 977	3 899	3 657	41.8
Total	9 285	9 158	9 168	9 285	9 471	100.0
<b>Horticulture</b>						
Australia	255	221	215	251	249	1.0
France	2 001	1 835	1 980	2 039	1 904	8.6
Germany	3 545	3 100	3 177	3 198	2 704	13.9
Japan	2 549	2 316	2 214	2 571	2 558	10.8
United States	2 739	2 819	2 769	3 201	3 201	13.0
Other	11 946	11 536	12 145	12 581	11 619	52.7
Total	23 035	21 828	22 500	23 840	22 235	100.0
<b>Beverages <sup>c</sup></b>						
Australia	267	297	272	320	377	1.0
Germany	3 123	3 000	3 307	3 589	2 955	9.9
Japan	1 972	1 902	2 420	2 069	1 995	6.4
United Kingdom	3 482	3 913	4 324	4 478	4 076	12.6
United States	5 647	6 376	6 896	7 816	8 567	21.9
Other	15 570	15 767	15 349	15 817	15 244	48.2
Total	30 061	31 255	32 569	34 090	33 213	100.0
<b>Sugar and confectionery</b>						
Australia	148	163	157	154	157	0.7
France	1 671	1 527	1 524	1 484	1 377	6.5
Germany	1 866	1 778	1 836	1 723	1 429	7.4
United Kingdom	1 951	1 857	1 823	1 795	1 651	7.8
United States	2 464	2 562	2 385	2 332	2 378	10.4
Other	17 735	16 386	15 922	15 046	13 402	67.3
Total	25 835	24 273	23 646	22 535	20 394	100.0

*Continued*

# 122 Value of world trade in processed foods, by major importing countries <sup>a</sup> (continued)

	1996 US\$m	1997 US\$m	1998 US\$m	1999 US\$m	2000 US\$m	Share <sup>b</sup> %
<b>Animal and vegetable oil</b>						
Australia	218	204	173	189	181	0.8
Germany	1 404	1 378	1 460	1 281	1 122	5.6
Italy	1 802	1 849	1 492	1 524	1 240	6.6
United Kingdom	1 173	1 128	1 042	998	889	4.4
United States	1 660	1 650	1 603	1 500	1 508	6.7
Other	18 022	18 872	21 636	18 710	13 119	75.9
Total	24 279	25 082	27 406	24 202	18 058	100.0
<b>Animal feed <sup>d</sup></b>						
Australia	82	99	98	93	97	0.4
China	1 298	1 791	1 405	619	908	5.4
France	1 700	1 714	1 524	1 266	1 462	6.8
Germany	1 969	1 841	1 831	1 422	1 479	7.6
Japan	2 287	2 374	2 046	1 944	2 036	9.5
Other	17 330	16 883	15 319	14 361	14 735	70.2
Total	24 666	24 701	22 223	19 705	20 716	100.0
<b>Cereal products</b>						
Australia	107	122	121	138	163	0.9
France	1 445	1 344	1 371	1 373	1 277	9.2
Germany	1 449	1 273	1 436	1 359	1 060	8.9
United Kingdom	881	988	1 055	1 057	1 007	6.7
United States	1 288	1 407	1 541	1 710	1 855	10.5
Other	10 325	9 629	9 279	9 173	8 786	63.8
Total	15 495	14 763	14 803	14 810	14 150	100.0
<b>Other processed food</b>						
Australia	634	676	671	670	713	1.8
France	2 112	2 232	2 247	1 997	1 798	5.7
Germany	4 258	4 554	4 458	3 806	3 117	11.0
Japan	2 632	2 775	2 549	2 450	2 451	7.0
United States	4 253	5 493	5 271	4 964	4 871	13.6
Other	21 395	23 151	23 462	22 202	21 133	60.8
Total	35 283	38 881	38 658	36 091	34 083	100.0
<b>All processed food</b>						
Australia	2 083	2 135	2 057	2 226	2 374	0.9
Germany	27 692	25 851	26 185	24 531	20 489	9.8
Japan	24 696	22 657	20 942	21 772	22 884	8.9
United Kingdom	19 478	19 727	19 908	19 645	18 287	7.6
United States	23 044	25 849	26 544	28 322	29 911	10.5
Other	163 448	162 849	163 312	156 270	145 989	62.3
Total	260 441	259 068	258 947	252 766	239 934	100.0

<sup>a</sup> Based on over 100 reporting countries representing more than 90 per cent of world trade. <sup>b</sup> Average, 1996–2000. <sup>c</sup> Alcoholic and nonalcoholic. <sup>d</sup> Excludes unmilled cereal.

Sources: International Trade Centre, UNCTAD/WTO, [www.intracen.org/itc/infobase/data/chap32/imp\\_cat.htm](http://www.intracen.org/itc/infobase/data/chap32/imp_cat.htm).

## Forestry

# 123 Summary of Australian statistics for roundwood <sup>a</sup>

	Removals of roundwood <sup>a</sup>			Imports <sup>b</sup>	Exports <sup>b</sup>	Consumption	Consumption per person
	Broadleaved '000 m <sup>3</sup>	Coniferous '000 m <sup>3</sup>	Total '000 m <sup>3</sup>				
1960-61	9 135	1 664	10 799	4 101	271	14 629	1.38
1961-62	8 376	1 678	10 054	2 969	348	12 675	1.18
1962-63	8 784	1 869	10 653	3 423	276	13 800	1.25
1963-64	9 341	1 934	11 275	3 774	315	14 734	1.32
1964-65	9 555	2 054	11 609	4 138	308	15 439	1.35
1965-66	9 583	2 169	11 752	4 002	243	15 511	1.34
1966-67	9 144	2 183	11 327	4 110	414	15 023	1.27
1967-68	9 187	2 238	11 425	4 396	301	15 520	1.29
1968-69	8 987	2 344	11 331	4 624	342	15 613	1.27
1969-70	9 106	2 415	11 521	4 904	406	16 019	1.28
1970-71	9 256	2 555	11 811	4 999	435	16 375	1.27
1971-72	8 988	2 673	11 661	4 603	465	15 799	1.20
1972-73	9 778	2 808	12 586	5 937	2 110	16 413	1.22
1973-74	11 063	2 636	13 699	4 896	2 860	15 735	1.15
1974-75	10 921	2 850	13 771	5 404	3 145	16 030	1.15
1975-76	9 995	2 877	12 872	4 752	2 798	14 826	1.06
1976-77	11 331	3 078	14 409	5 558	3 831	16 136	1.14
1977-78	11 259	3 282	14 541	4 690	3 670	15 561	1.08
1978-79	10 595	3 381	13 976	5 478	4 156	15 298	1.06
1979-80	11 720	3 866	15 586	5 667	5 185	16 068	1.09
1980-81	11 464	4 447	15 911	6 019	4 568	17 362	1.17
1981-82	10 348	4 524	14 872	6 403	4 245	17 030	1.12
1982-83	9 217	4 442	13 659	4 694	4 206	14 147	0.92
1983-84	10 537	4 689	15 226	5 856	4 586	16 496	1.06
1984-85	10 919	5 768	16 687	7 195	4 626	19 256	1.20
1985-86	10 949	5 958	16 907	6 943	4 836	19 014	1.17
1986-87	11 222	5 516	16 738	6 333	5 845	17 226	1.06
1987-88	11 162	5 686	16 848	7 894	5 654	19 088	1.15
1988-89	11 475	6 153	17 628	8 069	5 093	20 604	1.22
1989-90	10 534	7 030	17 564	7 947	5 266	20 245	1.18
1990-91	10 037	6 553	16 590	6 836	5 522	17 904	1.03
1991-92	9 512	7 141	16 653	7 351	5 748	18 256	1.04
1992-93	9 801	7 866	17 667	7 697	6 106	19 258	1.09
1993-94	9 793	8 969	18 762	7 681	6 689	19 754	1.11
1994-95	10 857	8 703	19 560	8 915	7 976	20 499	1.14
1995-96	9 920	9 305	19 225	6 918	7 384	18 759	1.03
1996-97	9 442	10 562	20 003	7 502	8 462	19 043	1.03
1997-98	9 793	11 016	20 808	8 047	10 302	18 553	1.00
1998-99	9 504	11 816	21 320	8 124	9 896	19 549	1.04
1999-00	11 557	12 484	24 041	9 585	12 355	21 271	1.12
2000-01	11 334	12 873	24 207	8 490	13 050	19 647	0.96
2001-02	11 559	13 034	24 593	8 276	13 134	19 734	na

<sup>a</sup> Gross roundwood equivalent (GRWE) of industrial log removals. Excludes log removals for firewood. <sup>b</sup> Estimated GRWE of forest products, including sawnwood, wood based panels, pulp, paper and paperboard, and woodchips. **na** Not available.

Sources: ABARE forestry database; Forestry and Timber Bureau, Department of National Development, *Compendium of Australian Forest Products Statistics: 1935-36 to 1967*, Canberra.

# 124 Land areas, by vegetation cover at 30 November 2002, by state

	NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT	Aust.
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
<b>Closed forest</b>	470	19	3 080	180	20	598	763	0 <sup>a</sup>	5 129
(% of land area)	0.59	0.08	1.78	0.07	0.02	8.81	0.57	0.00	0.67
<b>Open forest</b>	15 758	5 440	7 351	3 003	2 513	889	7 504	100	42 557
(% of land area)	19.66	23.90	4.26	1.19	2.55	13.11	5.57	41.48	5.54
<b>Woodland forest</b>	10 514	2 257	35 797	31 617	8 256	1 650	26 613	22	116 725
(% of land area)	13.12	9.92	20.73	12.52	8.39	24.33	19.77	9.15	15.19
<b>Plantation</b>	319	319	191	314	136	185	7	15	1 485
(% of land area)	0.40	1.40	0.11	0.12	0.14	2.73	0.01	6.15	0.19
<b>Unknown</b>	6 362		6 275						9 907
(% of land area)	4.53		3.63						1.29
<b>Total forest</b>									
vegetation cover	27 061	8 034	46 419	35 113	10 924	3 322	34 886	136	165 896
(% of land area)	33.76	35.30	26.88	13.90	11.10	48.99	25.91	56.78	21.59
<b>Total land area</b>	80 160	22 760	172 720	252 550	98 400	6 780	134 620	240	768 230

<sup>a</sup> The area of closed forest in the ACT is too small to be mapped at the scale used for this table.

Source: National Forest Inventory 2002, BRS, Canberra.



## Forestry

### 125 Australian prices of selected forest products

	Structural timber		Plywood and board a	Hardwood chips b	Softwood chips b	Newsprint c
	Hardwood a index	Softwood a index				
1980-81	50.2	53.1	49.1	na	na	na
1981-82	55.7	55.4	53.9	41.06	41.72	na
1982-83	60.4	60.1	60.6	42.00	35.59	na
1983-84	65.2	65.7	64.4	44.43	37.76	na
1984-85	72.2	72.6	67.3	50.68	50.31	na
1985-86	76.5	79.7	72.6	58.29	56.52	na
1986-87	79.9	81.7	75.3	66.02	45.76	na
1987-88	82.8	83.5	83.6	72.29	49.91	na
1988-89	94.4	94.0	92.9	73.47	45.46	672.23
1989-90	100.0	100.0	100.0	75.01	51.49	708.97
1990-91	101.7	103.7	104.0	75.46	56.58	708.76
1991-92	100.1	100.9	107.1	76.99	66.66	716.31
1992-93	105.0	109.2	106.9	75.68	66.61	687.75
1993-94	114.0	137.4	113.9	76.48	61.50	703.22
1994-95	122.7	137.4	117.5	77.94	62.79	715.79
1995-96	121.7	127.8	111.0	81.86	74.78	1 007.91
1996-97	118.6	123.2	108.2	82.63	61.87	888.20
1997-98	121.6	129.2	109.0	77.33	64.36	900.13
1998-99	126.8	133.0	108.7	77.51	65.95	930.02
1999-00	138.1	137.9	110.9	71.40 s	61.16 s	942.99
2000-01	150.5	139.5	114.2	74.37 s	69.46 s	961.77
2001-02	153.2	139.5	117.2	75.96 s	71.62 s	993.54

a Index of prices paid by building contractors or subcontractors for materials delivered on building sites; weighted average for six capital cities; base 1989-90 = 100. b Average unit fob value of Australian exports in green tonnes. c Average unit value of Australian imports, fob New Zealand. s ABARE estimate. na Not available.

Sources: ABS, *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities*, cat. no. 6407.0, Canberra; ABARE.

# 126 Value of turnover in forest products industries <sup>a</sup>

	1994-95 \$m	1995-96 \$m	1996-97 \$m	1997-98 \$m	1998-99 \$m	1999-00 \$m	2000-01 \$m
<i>ANZSIC group and class <sup>b</sup></i>							
<b>Wood and wood products</b>							
Log sawmilling	991	846	803	771	729	881	694
Resawn and dressed timber	1 158	1 035	1 036	1 215	1 177	1 287	1 633
Veneers, plywood and fabricated wood manufacturing	1 189	1 130	1 185	1 081	1 143	1 239	1 316
Wooden structural fittings and joinery nec	1 838	1 874	1 894	2 184	2 512	3 241	2 624
Hardwood woodchips	473	447	465	507	448	517	243
Wood products nec	760	632	604	560	589	682	617
<b>Total</b>	<b>6 408</b>	<b>5 964</b>	<b>5 986</b>	<b>6 319</b>	<b>6 599</b>	<b>7 846</b>	<b>7 126</b>
<b>Paper and paper products</b>							
Pulp, paper and paperboard	2 260	2 425	2 020	1 961	2 114	2 277	2 663
Paper bags including sack manufacturing	194	214	288	278	310	1 899	2 889
Solid fibreboard containers	467	619	537	506	556	551	714
Corrugated fibreboard containers	1 445	1 517	1 484	1 440	1 537	na <sup>c</sup>	na <sup>c</sup>
Paper products nec	825	801	867	993	1 085	1 054	1 686
<b>Total</b>	<b>5 190</b>	<b>5 575</b>	<b>5 196</b>	<b>5 179</b>	<b>5 602</b>	<b>5 780</b>	<b>7 951</b>
<b>Total value</b>	<b>11 598</b>	<b>11 539</b>	<b>11 182</b>	<b>11 498</b>	<b>12 201</b>	<b>13 626</b>	<b>15 077</b>

<sup>a</sup> Turnover is defined as follows: sales of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise such as commission, repair and service revenue, plus capital work done for own use or for rental or lease. Receipts from rent, leasing, interest other than hire purchase, royalties and the sale of fixed tangible assets are excluded. Since 1988-89, full ABS censuses of manufacturing establishments have been conducted triennially. <sup>b</sup> ANZSIC group and class. <sup>c</sup> included with Paper bags including sack manufacturing.

Source: ABS, *Manufacturing Industry, Australia*, cat. no. 8221.0, Canberra.

## Forestry

### 127 Employment in forest products industries <sup>a</sup>

	1994-95 '000	1995-96 '000	1996-97 '000	1997-98 '000	1998-99 '000	1999-00 '000	2000-01 '000
<b>Forestry and logging</b>	12.4	11.4	10.9	14.0	14.1	8.8	13.4
<b>Manufacturing industries <sup>a</sup></b>							
<b>Wood and wood products</b>							
Log sawmilling	9.0	8.1	7.1	7.0	5.6	6.5	5.3
Resawn and dressed timber	7.1	6.4	6.9	7.4	6.2	6.2	7.9
Veneers, plywood and fabricated wood manufacturing	6.2	5.9	5.6	4.9	5.0	4.9	5.5
Wooden structural fittings and joinery nec	17.2	17.1	16.4	18.7	20.1	22.2	20.2
Hardwood woodchips	0.8	0.9	0.9	0.9	0.7	0.8	0.6
Wood products nec	7.8	7.4	6.7	6.5	5.7	6.2	5.7
<b>Total</b>	<b>48.1</b>	<b>45.8</b>	<b>43.8</b>	<b>45.4</b>	<b>43.4</b>	<b>46.8</b>	<b>45.3</b>
<b>Paper and paper products</b>							
Pulp, paper and paperboard	5.6	5.8	5.2	4.8	4.4	4.3	5.1
Paper bags including sack manufacturing	0.9	1.0	1.2	1.2	1.3	1.4	1.3
Solid fibreboard containers	2.3	4.1	2.4	2.4	2.5	2.6	2.9
Corrugated fibreboard containers	5.3	5.7	5.6	5.4	5.5	4.9	5.9
Paper products nec	3.6	3.5	3.4	3.5	3.7	3.6	4.6
<b>Total</b>	<b>17.8</b>	<b>20.0</b>	<b>17.9</b>	<b>17.2</b>	<b>17.3</b>	<b>16.9</b>	<b>19.7</b>
<b>Total manufacturing industries</b>	<b>65.9</b>	<b>65.8</b>	<b>61.7</b>	<b>62.6</b>	<b>60.7</b>	<b>63.6</b>	<b>65.0</b>
<b>Total employment</b>	<b>78.3</b>	<b>77.2</b>	<b>72.6</b>	<b>76.6</b>	<b>74.8</b>	<b>72.4</b>	<b>78.4</b>

<sup>a</sup> ANZSIC group and class. Based on PAYE employment statistics excluding volunteers.

Source: ABS, *The Labour Force*, cat. no. 6203.0, Canberra; ABS, *Manufacturing Industry, Australia*, cat. no. 8221.0, Canberra.

# 128 Value of Australian forest products trade <sup>a</sup>

	1995-96 \$m	1996-97 \$m	1997-98 \$m	1998-99 \$m	1999-00 \$m	2000-01 \$m	2001-02 \$m
<b>Imports</b>							
Roundwood	1.2	1.3	1.7	1.4	0.8	0.9	0.7
Sawnwood							
Coniferous roughsawn	193.4	192.1	215.0	201.5	282.3	197.3	190.6
Coniferous dressed	92.8	100.0	121.0	120.7	156.1	123.4	149.7
Broadleaved roughsawn	45.8	46.9	51.1	55.9	62.4	59.7	58.0
Broadleaved dressed	35.1	34.7	35.5	38.6	47.3	47.2	44.2
Total	367.1	373.8	422.7	416.7	548.1	427.7	442.5
Railway sleepers	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Miscellaneous forest products <sup>b</sup>	282.5	298.2	354.0	396.3	475.9	461.5	528.1
Veneer	21.5	20.0	24.1	25.5	25.9	22.9	18.8
Plywood	42.8	48.6	62.0	63.7	77.4	64.9	80.2
Particleboard	5.2	4.0	6.7	7.9	11.3	13.8	18.7
Hardboard	6.8	4.5	5.7	6.2	6.6	5.5	7.1
Medium density fibreboard	42.2	38.6	35.2	30.6	55.4	34.7	31.7
Softboard and other fibreboard	5.2	9.6	11.2	8.5	12.7	9.7	8.3
Paper and paperboard							
Newsprint	290.8	216.8	238.8	239.5	257.9	277.5	219.8
Printing and writing	935.0	853.6	966.9	993.1	1 139.8	1 180.7	1 261.5
Household and sanitary	49.5	37.7	52.7	65.4	89.2	94.7	102.5
Packaging and industrial	410.0	399.0	438.3	458.2	510.8	535.1	407.3
Total	1 685.3	1 507.1	1 696.7	1 756.2	1 997.7	2 088.0	1 991.2
Paper manufactures <sup>c</sup>	275.3	282.5	315.5	348.0	356.2	377.5	374.0
Wastepaper	6.0	8.8	7.1	6.2	7.4	8.8	4.6
Pulp	183.7	125.2	126.1	193.1	219.8	316.6	221.3
Pulpwood	0.5	0.7	1.0	1.6	1.6	1.4	1.2
<b>Total</b>	<b>2 925.4</b>	<b>2 722.7</b>	<b>3 069.6</b>	<b>3 262.0</b>	<b>3 797.0</b>	<b>3 834.1</b>	<b>3 728.3</b>

Continued

## Forestry

### 128 Value of Australian forest products trade <sup>a</sup> (continued)

	1995-96 \$m	1996-97 \$m	1997-98 \$m	1998-99 \$m	1999-00 \$m	2000-01 \$m	2001-02 \$m
<b>Exports</b>							
Roundwood	37.78	52.95	37.70	48.79	69.75	66.77	89.08
Sawnwood							
Coniferous roughsawn	1.78	4.67	3.85	5.07	3.09	12.49	15.86
Coniferous dressed	11.65	7.97	6.11	9.90	16.89	12.03	14.27
Broadleaved roughsawn	24.29	23.82	15.07	22.08	25.52	24.23	28.85
Broadleaved dressed	2.17	3.49	4.48	5.73	5.73	10.17	6.88
Total	39.89	39.96	29.51	42.78	51.23	58.92	65.87
Railway sleepers	0.61	5.24	3.46	6.33	6.21	9.03	6.54
Miscellaneous forest products <sup>b</sup>	46.35	55.35	68.23	65.59	61.62	71.16	54.76
Veneer	6.68	6.77	5.44	6.49	6.29	8.06	6.98
Plywood	2.23	2.42	2.13	2.76	2.73	2.98	4.44
Particleboard	38.60	31.16	19.63	23.29	21.52	26.49	26.66
Hardboard	0.25	0.24	0.03	0.03	6.29	10.63	5.99
Medium density fibreboard	23.43	34.74	50.09	64.50	98.69	150.56	162.43
Softboard and other fibreboard	0.32	1.14	2.47	3.85	7.66	6.67	10.24
Paper and paperboard							
Newsprint	1.30	0.09	7.45	6.90	1.58	2.56	1.27
Printing and writing	51.87	57.01	65.99	81.51	121.09	145.63	284.93
Household and sanitary	47.86	58.80	63.93	59.74	80.11	80.44	94.82
Packaging and industrial	146.94	233.83	236.99	207.24	287.86	300.13	315.34
Total	247.97	349.73	374.35	355.40	490.63	528.76	698.62
Paper manufactures <sup>c</sup>	52.29	68.17	66.51	61.72	65.85	83.82	91.66
Wastepaper	26.23	10.70	17.88	25.09	39.89	39.73	55.45
Pulp	0.67	1.74	0.60	0.90	1.59	4.55	2.84
Woodchips	543.52	518.31	646.35	585.94	646.10	743.77	711.99
<b>Total</b>	<b>1 066.82</b>	<b>1 178.63</b>	<b>1 324.38</b>	<b>1 293.44</b>	<b>1 576.08</b>	<b>1 811.90</b>	<b>1 993.56</b>

<sup>a</sup> Values are duty or customs values for imports and fob from Australian ports for exports. <sup>b</sup> Includes such items as wooden doors, mouldings, packing cases, parquet flooring, builders carpentry, cork, gums, resins, eucalyptus oils and other miscellaneous wood articles. Excludes wood furniture. <sup>c</sup> Includes such items as boxes, bags, account books, note books, letter pads and other paper stationery.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

## 129 Australian production, trade and consumption of sawnwood

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
<b>Broadleaved (hardwood)</b>							
Production	1 406	1 424	1 328	1 267	1 346	1 174	1 106
Imports	94	100	106	113	124	107	104
Exports	28	27	21	30	45	34	na
Consumption	1 472	1 496	1 413	1 350	1 425	1 248	1 064
<b>Coniferous (softwood)</b>							
Production	2 054	2 120	2 338	2 338	2 637	2 351	3 007
Imports	648	657	678	663	846	611	632
Exports	26	24	18	21	45	53	na
Consumption	2 676	2 752	2 998	2 980	3 437	2 910	3 347
<b>Total broadleaved and coniferous</b>							
Production	3 460	3 543	3 666	3 606	3 983	3 525	4 113
Imports	742	756	784	775	970	719	735
Exports	54	51	38	51	90	86	na
Consumption	4 148	4 248	4 411	4 330	4 863	4 157	4 411

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; state and territory forest agencies.

## 130 Australian exports of sawnwood, by destination

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
<b>Africa</b>								
South Africa	0.12	0.18	0.10	0.02	0.03	0.21	0.38	na
Total	0.12	0.19	0.38	0.06	0.03	0.21	0.51	na
<b>America</b>								
United States	5.56	3.43	3.38	5.98	6.72	9.20	15.27	na
Total	5.63	3.99	3.55	6.04	6.76	9.23	15.31	na
<b>Asia</b>								
Japan	20.73	21.60	16.10	8.94	9.02	24.93	20.43	na
Philippines	0.01	0.92	4.61	2.09	5.44	2.31	8.11	na
Total	27.65	32.26	32.55	19.28	25.11	62.09	53.52	na
<b>Europe</b>								
Belgium–Luxembourg	2.99	1.83	0.92	1.22	2.00	2.13	3.35	na
Netherlands	3.15	2.48	3.41	2.77	2.96	0.34	0.27	na
United Kingdom	5.57	7.36	3.37	0.94	3.88	0.82	0.40	na
Total	12.30	12.71	8.87	6.41	11.93	7.30	6.91	na
<b>Oceania</b>								
New Zealand	4.00	3.77	4.60	5.10	6.51	5.91	7.21	na
Total	5.11	4.47	5.06	6.31	7.10	10.18	8.59	na
<b>Other</b>	0.20	0.15	0.78	0.20	0.30	1.14	1.65	na
<b>Total</b>	51.01	53.77	51.19	38.30	51.22	90.15	86.50	na
(value, \$m)	35.6	39.9	40.0	29.5	42.8	51.2	58.9	na

na Not available.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Forestry

### 131 Australian imports of sawnwood, by source and type

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
<b>Country</b>								
<b>Canada</b>								
Douglas fir	125	71	88	109	104	127	64	65
Hemlock	1	1	0	0	0	0	0	0
Western red cedar	76	63	63	67	55	79	42	52
Other	16	12	22	21	13	45	20	14
Total	219	146	173	197	171	251	126	131
<b>Malaysia</b>								
Meranti a	49	28	38	42	42	40	28	28
Other	41	24	16	18	19	24	20	20
Total	90	52	54	60	60	64	47	48
<b>New Zealand</b>								
Radiata pine	402	272	275	308	315	380	302	321
Douglas fir	26	16	24	29	57	61	51	59
Other	41	34	33	35	48	51	35	39
Total	469	322	332	372	419	491	387	420
<b>United States</b>								
Douglas fir	188	151	125	84	46	27	16	12
Hemlock	1	0	0	0	0	0	0	0
Western red cedar	4	3	3	2	1	2	1	1
Other	18	11	14	12	10	15	12	10
Total	211	166	142	98	58	44	29	23
<b>Region</b>								
Asia	112	71	73	82	88	96	77	77
Europe	14	16	18	17	16	47	51	30
North America	430	312	315	296	229	295	155	154
Pacific	495	338	346	386	437	507	406	438
South America	4	3	2	2	2	4	4	2
Other	2	1	2	1	3	20	26	36
Total	1 058	742	756	784	775	970	719	735
(value \$m)	538.4	367.1	373.8	422.7	416.7	548.1	427.7	442.5

a Includes iuan and seraya from June 1996.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

### 132 Australian production, trade and consumption of railway sleepers

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
Production	84	78	68	62	67	40	na	na
Imports	0	0	0	2	0	0	0	0
Exports	3	2	11	8	16	17	24	14
Consumption	81	77	57	57	51	23	na	na

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; state rail authorities.

# 133 Australian production, trade and consumption of panel products

	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
<b>Production</b>									
Plywood	138	145	131	151	170	169	192	157	201
Particleboard	828	864	826	790	882	902	978	904	965
Medium density fibreboard	421	436	377	434	501	495	621	712	732
Total	1 388	1 445	1 333	1 376	1 554	1 566	1 791	1 774	1 898
<b>Imports</b>									
Plywood	63	73	66	74	89	100	114	97	116
Particleboard	22	35	20	13	17	22	32	44	70
Hardboard	12	15	11	6	6	8	9	8	7
Medium density fibreboard	88	102	78	85	77	74	138	88	81
Softboard and other fibreboards	14	14	11	18	23	17	26	33	20
Total	199	239	187	197	213	222	319	271	295
<b>Exports</b>									
Plywood	1	2	2	3	2	4	10	7	19
Particleboard	71	71	112	100	61	77	69	98	100
Hardboard	1	0	0	0	0	0	5	6	10
Medium density fibreboard	133	128	90	118	139	206	288	389	403
Softboard and other fibreboards	1	2	0	7	9	17	19	12	74
Total	209	204	205	228	212	304	392	512	605
<b>Consumption</b>									
Plywood	200	216	195	222	257	265	296	247	298
Particleboard	779	827	734	703	838	846	941	850	935
Medium density fibreboard	376	410	365	402	440	364	471	411	411
Total	1 355	1 453	1 294	1 327	1 535	1 475	1 708	1 509	1 644

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Australian medium density fibreboard manufacturers; Australian particleboard manufacturers; B.L. Steenson, Chartered Accountant; Plywood Association of Australia; ABARE.



## Forestry

### 134 Australian production of plywood, by type <sup>a</sup>

	Interior	Sliced and random grooved	Marine	Overlaid	Tongue and groove flooring	Structural	Exterior and other commercial	Total
	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>
1970-71	na	na	na	na	na	na	na	104 614
1971-72	na	na	na	na	na	na	na	76 090
1972-73	na	na	na	na	na	na	na	72 515
1973-74	na	na	na	na	na	na	na	78 449
1974-75	na	na	na	na	na	na	na	81 984
1975-76	na	na	na	na	na	na	na	78 191
1976-77	na	na	na	na	na	na	na	85 333
1977-78	17 771	2 777	4 208	26 836	9 872	15 084	8 133	84 681
1978-79	14 914	1 625	3 706	28 978	10 807	19 768	8 451	88 249
1979-80	14 995	1 311	3 505	27 097	11 167	21 656	7 131	86 862
1980-81	12 862	1 482	3 026	29 012	10 959	23 812	7 622	88 775
1981-82	11 586	1 782	1 784	28 520	11 586	24 955	8 913	89 126
1982-83	10 724	715	2 860	21 448	7 149	22 163	6 434	71 493
1983-84	13 109	742	2 144	18 798	8 904	31 001	7 750	82 448
1984-85	8 287	1 515	2 584	24 595	9 624	35 111	7 396	89 112
1985-86	8 723	1 437	2 637	27 001	9 659	34 949	11 489	95 895
1986-87	7 908	917	2 208	30 169	7 829	39 534	8 672	97 237
1987-88	8 326	928	2 382	37 242	9 028	44 249	9 002	111 157
1988-89	7 526	779	2 976	39 584	11 808	54 757	12 326	129 756
1989-90	7 005	635	2 087	37 135	12 114	55 011	11 192	125 179
1990-91	4 753	404	1 618	25 686	11 933	47 226	9 506	101 126
1991-92	4 927	194	1 490	22 010	15 295	44 682	17 962	106 560
1992-93	5 190	207	1 482	22 585	18 813	53 290	20 446	122 014
1993-94	6 048	201	1 475	26 866	17 416	63 232	23 086	138 324
1994-95	4 400	190	1 332	33 206	14 804	69 300	21 800	145 032
1995-96	4 202	160	1 339	42 503	13 390	63 025	6 236	130 855
1996-97	5 218	70	1 188	32 402	14 140	75 175	23 183	151 376
1997-98	4 422	47	1 336	35 373	15 743	89 074	24 341	170 336
1998-99	3 615	0	1 151	31 105	15 183	92 698	25 258	169 010
1999-00	3 872	0	1 245	30 110	15 118	109 881	31 539	191 765
2000-01	3 730	0	1 049	24 719	20 412	89 191	17 934	157 035
2001-02	4 002	0	1 241	31 153	15 801	119 455	29 095	200 747

<sup>a</sup> For some years plywood categories not available, only total. **na** Not available.

Sources: Plywood Association of Australia; ABARE.

# 135 Australian imports of veneer and wood based panels, by source

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>	'000 m <sup>3</sup>
<b>Plywood</b>								
Chinese Taipei	0.04	0.01	0.00	0.00	0.04	0.00	0.00	0.00
Indonesia	37.97	30.95	32.51	38.30	37.02	39.16	25.92	29.59
Korea, Rep. of	0.00	0.02	0.00	0.00	0.00	0.03	0.03	0.00
Malaysia	5.15	6.84	6.74	8.41	10.39	16.87	16.00	15.79
New Zealand	24.51	23.83	27.07	32.86	37.33	38.40	30.77	47.31
Papua New Guinea	0.23	0.06	0.18	0.33	0.19	0.62	0.46	1.79
Singapore	0.41	0.24	0.23	0.64	3.18	0.89	0.60	2.29
Other	5.05	4.50	7.37	8.49	12.31	18.35	23.26	19.21
Total	73.37	66.47	74.08	89.03	100.45	114.31	97.06	115.98
(value, \$m)	50.9	42.8	48.6	62.0	63.7	77.4	64.9	80.2
<b>Veneer</b>								
Malaysia	3.61	1.93	3.41	3.65	1.46	2.28	1.87	1.84
New Zealand	1.73	0.46	0.82	1.61	4.55	1.73	0.31	0.11
Philippines	3.22	1.85	4.38	3.79	4.54	6.08	4.69	4.85
Singapore	1.24	0.25	0.35	0.24	0.34	0.36	0.20	0.79
South Africa	0.02	0.02	0.05	0.36	0.80	1.14	0.84	0.60
Thailand	0.03	0.05	0.03	0.06	0.03	0.06	0.06	0.14
United States	1.76	2.26	2.24	2.29	2.12	2.06	1.39	1.46
Other	9.10	5.64	6.40	9.86	4.92	6.61	4.82	5.20
Total	20.70	12.46	17.68	21.86	18.75	20.32	14.16	14.98
(value, \$m)	25.4	21.5	20.0	24.1	25.5	25.9	22.9	18.8
<b>Particleboard</b>								
Malaysia	0.04	0.12	0.27	0.26	0.35	0.47	0.30	0.92
New Zealand	33.48	19.18	12.48	16.02	17.44	27.72	31.67	35.01
Other	0.65	1.11	0.41	0.75	3.96	4.20	7.49	34.19
Total	34.55	20.36	12.98	16.90	21.68	31.94	43.90	70.00
(value, \$m)	8.8	5.2	4.0	6.7	7.9	11.3	13.8	18.7
<b>Hardboard</b>								
Brazil	3.53	1.44	1.28	1.70	1.41	0.90	1.49	0.17
New Zealand	6.89	5.38	0.87	1.22	2.22	5.03	3.65	3.94
Other	3.42	2.70	3.92	3.19	3.12	2.37	2.76	2.77
Total	14.59	10.74	6.29	6.10	7.64	9.27	8.24	7.30
(value, \$m)	7.9	6.8	4.5	5.7	6.2	6.6	5.5	7.1
<b>Medium density fibreboard</b>								
Malaysia	0.75	3.32	4.93	6.45	12.16	10.82	8.62	10.65
New Zealand	100.73	73.97	78.52	69.71	59.70	117.13	74.52	65.37
Other	0.69	0.98	1.80	1.29	2.54	9.69	5.11	5.41
Total	102.16	78.28	85.25	77.45	74.39	137.64	88.25	81.42
(value, \$m)	53.6	42.2	38.6	35.2	30.6	55.4	34.7	31.7
<b>Softboard and other fibreboards</b>								
New Zealand	11.93	9.08	16.25	17.23	10.40	17.87	12.48	7.86
Other	2.13	2.40	2.24	6.26	7.05	7.99	20.97	12.03
Total	14.05	11.49	18.49	23.49	17.46	25.86	33.46	19.89
(value, \$m)	6.7	5.2	9.6	11.2	8.5	12.7	9.7	8.3

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Forestry

### 136 Australian production, trade and consumption of paper and paper products

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Production</b>								
Newsprint	444.1	445.4	420.8	443.8	405.0	464.0	465.0	na
Printing and writing paper	365.0	351.0	364.0	424.0	497.0	535.0	554.0	na
Household and sanitary	173.0	180.0	181.0	191.0	187.0	232.0	204.0	na
Packaging and industrial paper	1 312.0	1 344.0	1 452.0	1 483.0	1 475.0	1 605.0	1 449.0	na
Total	2 294.1	2 320.4	2 417.8	2 541.8	2 564.0	2 836.0	2 672.0	na
<b>Imports</b>								
Newsprint	257.1	281.6	250.1	289.5	275.1	293.1	283.9	224.3
Printing and writing paper	782.5	576.8	688.8	741.5	718.0	838.6	760.3	822.2
Household and sanitary	26.8	25.4	24.1	32.4	40.1	53.5	54.8	55.9
Packaging and industrial paper	293.0	226.8	254.8	275.9	263.9	325.4	310.8	212.9
Total	1 359.4	1 110.7	1 217.7	1 339.2	1 297.2	1 510.6	1 409.8	1 315.3
<b>Exports</b>								
Newsprint	0.0	1.9	0.6	15.2	13.0	2.0	2.5	1.5
Printing and writing paper	26.8	26.2	35.0	46.9	59.9	97.1	100.2	660.8
Household and sanitary	11.2	12.0	14.9	15.4	14.7	23.2	23.4	42.8
Packaging and industrial paper	208.4	201.5	369.1	355.8	289.1	383.5	404.0	530.8
Total	246.4	241.6	419.5	433.4	376.6	505.8	530.1	1 185.3
<b>Total consumption</b>								
Newsprint	701.2	725.1	670.3	718.0	667.2	755.0	700.0	737.0
Printing and writing paper	1 120.7	901.6	1 017.8	1 118.7	1 155.2	1 276.5	1 214.2	na
Household and sanitary	188.6	193.4	190.2	208.0	212.4	262.3	235.4	na
Packaging and industrial paper	1 396.7	1 369.4	1 337.7	1 403.0	1 449.9	1 546.9	1 355.9	na
Total	3 407.1	3 189.5	3 216.0	3 447.7	3 484.6	3 840.8	3 551.8	na
<b>Consumption per person</b>								
Newsprint	38.9	39.8	36.4	38.6	35.5	39.8	36.5	na
Printing and writing paper	62.2	49.5	55.3	60.2	61.5	67.3	65.4	na
Household and sanitary	10.5	10.6	10.3	11.2	11.3	13.8	13.1	na
Packaging and industrial paper	77.5	75.2	72.7	75.5	77.2	81.5	78.9	na
Total	189.1	175.2	174.8	185.5	185.5	202.5	194.0	na

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Australian Paper Industry Council; FAO Pulp, Paper and Paperboard Production Survey.

# 137 Australian imports of paper and paperboard, by type and source

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Newsprint a</b>								
Canada	47.8	53.6	50.8	10.1	4.3	4.5	4.9	0.7
Finland	11.3	21.4	19.0	38.9	20.5	16.5	20.7	9.3
Indonesia	4.1	5.2	8.0	21.8	29.2	35.0	24.0	19.3
Korea, Rep. of	2.9	2.7	10.2	27.7	51.2	62.3	41.5	14.8
New Zealand	160.3	170.3	134.1	163.4	141.8	159.2	181.4	173.5
Other	30.6	28.4	28.0	27.4	28.0	15.6	11.4	6.7
Total	257.1	281.6	250.1	289.5	275.1	293.1	283.9	224.3
(value, \$m)	189.9	290.8	216.8	238.8	239.5	257.9	277.5	219.8
<b>Printing and writing paper</b>								
Austria	11.6	6.0	23.0	17.9	18.3	17.0	15.8	19.5
Brazil	26.8	27.8	34.0	21.5	5.5	8.0	2.3	2.5
Canada	5.7	10.4	3.1	5.7	32.6	45.1	21.4	17.7
Finland	215.3	149.0	141.1	188.0	148.3	152.0	145.4	157.7
Germany	79.6	56.1	61.4	75.5	56.5	43.8	38.3	30.7
Indonesia	15.9	22.9	52.4	70.5	127.6	123.5	75.9	59.9
Italy	66.1	54.3	45.2	53.2	43.9	49.5	46.3	24.8
Japan	30.0	23.6	30.5	40.3	31.7	40.0	34.0	34.1
Korea, Rep. of	24.9	18.6	43.7	30.2	35.9	36.6	22.0	28.3
New Zealand	23.4	18.9	10.8	5.0	7.4	5.4	2.1	17.0
Norway	8.4	5.8	9.8	16.8	20.7	21.9	15.5	15.3
South Africa	14.1	17.3	21.6	20.3	24.1	18.9	14.8	12.7
Sweden	25.7	23.2	29.2	36.9	40.6	43.6	41.5	52.9
United States	80.1	68.4	86.6	85.1	52.6	59.2	89.3	89.7
Other b	154.8	74.6	96.5	74.7	72.2	174.1	195.6	259.4
Total	782.5	576.8	688.8	741.5	718.0	838.6	760.3	822.2
(value, \$m)	963.0	935.0	853.6	966.9	993.1	1 139.8	1 180.7	1 261.5
<b>Household and sanitary products</b>								
Chinese Taipei	3.0	5.5	7.9	7.8	7.9	4.8	1.3	1.9
Indonesia	3.0	1.2	1.5	3.9	7.4	11.3	8.9	10.2
New Zealand	12.3	10.6	7.2	10.4	10.8	14.3	17.8	16.1
Other	8.5	8.1	7.4	10.3	14.0	23.1	26.8	27.7
Total	26.8	25.4	24.1	32.4	40.1	53.5	54.8	55.9
(value, \$m)	39.1	49.5	37.7	52.7	65.4	89.2	94.7	102.5

Continued

## Forestry

### 137 Australian imports of paper and paperboard, by type and source *(continued)*

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Packaging and industrial</b>								
Belgium-Luxembourg	1.9	1.5	1.3	1.2	2.2	1.1	1.1	0.9
Brazil	13.7	14.2	14.4	11.4	3.2	3.1	2.0	0.6
China	6.3	3.0	4.0	3.8	6.3	4.9	6.6	6.9
Finland	31.9	26.6	25.2	28.4	26.4	35.6	40.8	19.1
France	6.3	3.7	2.9	4.4	5.6	4.0	3.3	2.8
Germany	10.0	9.4	10.2	10.1	16.5	33.9	24.5	16.4
Indonesia	5.7	2.7	4.2	3.7	4.5	6.7	4.3	3.7
Italy	24.4	4.5	4.6	3.7	4.2	7.5	8.3	6.8
Japan	2.3	1.9	1.8	2.4	1.7	1.6	0.7	0.7
Netherlands	7.4	4.9	5.2	4.9	5.3	4.5	4.3	2.7
New Zealand	20.9	22.6	20.3	26.3	45.3	69.0	77.0	45.2
Singapore	3.8	2.6	3.0	2.8	1.7	2.6	1.4	6.0
South Africa	5.2	2.1	1.7	6.7	3.9	8.5	10.8	12.0
Sweden	5.9	5.4	5.6	3.1	3.6	5.0	12.0	9.8
Thailand	0.1	0.5	0.4	1.7	9.2	14.9	0.4	4.1
United Kingdom	18.6	7.3	8.3	9.4	5.9	6.4	8.0	9.1
United States	105.5	103.9	126.8	138.2	109.2	105.5	93.2	56.3
Other	23.2	10.1	15.0	13.8	9.5	10.7	12.1	9.7
Total	293.0	226.8	254.8	275.9	263.9	325.4	310.8	212.9
(value, \$m)	413.8	410.0	399.0	438.3	458.2	510.8	535.1	407.3

**a** Uncoated paper (at least 60 per cent mechanical pulp) used mainly for the printing of newspapers. **b** Includes imports for which country of origin is confidential.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS.

## 138 Australian production of wood pulp and use of wastepaper

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	kt	kt	kt	kt	kt	kt	kt	kt
Mechanical	399	355	351	345	366	376	362	na
Chemical <sup>a</sup>	583	613	563	591	506	508	534	na
Total pulp	982	968	914	936	872	884	896	na
Wastepaper used	1 056	1 340	1 488	1 463	1 536	1 542	1 634	na

<sup>a</sup> Details for semichemical pulp are included in chemical pulp. **na** Not available.

Sources: ABS, *Manufacturing Production, Australia*, cat. no. 8301.0, Canberra; Australian Paper Industry Council; ABARE.

## 139 Australian imports of wood pulp, by type and source

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	kt	kt	kt	kt	kt	kt	kt	kt
<b>Mechanical</b>								
Canada	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.4
New Zealand	0.0	0.0	0.0	1.6	7.6	7.6	6.0	3.9
United States	0.0	0.2	1.4	0.7	0.4	0.1	0.4	0.2
Total	0.1	0.3	2.1	2.4	8.2	8.1	7.6	4.5
(value, \$m)	0.2	0.2	1.3	1.6	6.0	6.5	8.2	3.9
<b>Chemical</b>								
Brazil	4.1	3.0	1.6	1.7	51.4	10.6	16.9	24.4
Canada	49.1	47.0	69.6	37.2	40.8	44.5	33.9	23.4
Finland	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	0.2	3.0	7.9	9.5	48.7	45.3	47.3	44.7
New Zealand	93.7	80.1	71.0	82.3	91.0	88.3	110.9	120.2
United States	37.4	31.7	27.5	24.8	23.9	29.6	22.2	7.2
Other	4.7	8.8	11.3	12.9	22.5	36.3	55.6	56.5
Total	191.0	173.6	189.1	168.3	278.1	254.6	286.8	276.4
(value, \$m)	149.4	173.7	117.8	118.5	172.5	209.0	299.9	192.6
<b>Semichemical</b>								
Total	5.0	9.7	11.0	9.4	23.6	12.6	9.0	33.6
(value, \$m)	4.0	9.7	6.1	5.9	14.6	4.3	8.6	24.7
<b>Total wood pulp</b>								
(value, \$m)	196.1	183.6	202.1	180.1	309.9	275.4	303.4	314.5
	153.6	183.7	125.2	126.1	193.1	219.8	316.6	221.3

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Forestry

# 140 Australian roundwood and woodchip trade

	Imports		Exports		
	Roundwood a '000m <sup>3</sup>	Roundwood a '000m <sup>3</sup>	Woodchips b		Total kt
			Coniferous kt	Broadleaved kt	
1970-71	118.2	na	na	na	na
1971-72	122.2	na	na	na	1 880
1972-73	97.1	na	na	na	2 794
1973-74	102.1	na	na	na	2 664
1974-75	37.2	na	na	na	2 566
1975-76	46.4	na	na	na	2 336
1976-77	32.2	na	na	na	3 234
1977-78	27.6	na	na	na	3 132
1978-79	17.0	na	na	na	3 349
1979-80	0.6	na	na	na	4 459
1980-81	0.1	na	na	na	4 143
1981-82	1.7	na	na	na	3 821
1982-83	1.7	na	na	na	3 689
1983-84	0.5	na	na	na	4 443
1984-85	0.5	na	na	na	4 565
1985-86	1.0	na	na	na	4 447
1986-87	1.0	na	na	na	5 020
1987-88	1.7	na	na	na	5 108
1988-89	2.9	8.4	247	5 462	5 709
1989-90	6.3	5.3	273	4 851	5 123
1990-91	0.5	79.5	263	5 266	5 529
1991-92	0.3	86.2	710	4 809	5 519
1992-93	1.6	242.0	861	4 818	5 679
1993-94	6.1	420.7	1 126	4 960	6 085
1994-95	2.1	286.7	1 921	5 626	7 547
1995-96	1.6	351.1	1 837	4 961	6 798
1996-97	1.1	615.5	1 909	4 843	6 752
1997-98	6.1	391.0	2 340	6 410	8 750
1998-99	5.7	778.3	2 314	5 590	7 904
1999-00	2.3	1 149.7	2 343	7 021 s	9 365
2000-01	1.3	1 094.2	2 465	7 631	10 096
2001-02	0.9	1 192.4	1 901	7 589	9 490

a Includes saw logs and pulp logs. b Green tonne equivalent of bone dry tonnes. s ABARE estimate. na Not available.  
Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 141

## Summary of Australian statistics for grapes and grape products

	Grape use			Australian wine		Production of dried vine fruit kt	Exports of dried vine fruit kt
	Grape production kt	Wine making kt	Drying and table kt	Domestic sales ML	Sales per person L		
1960-61	535.0	187.6	347.4	53.1	5.0	83.0	57.6
1961-62	638.0	234.5	403.5	54.3	5.1	98.1	65.8
1962-63	479.0	169.3	309.7	57.1	5.2	71.6	61.9
1963-64	665.3	214.3	451.0	60.9	5.4	106.0	64.0
1964-65	690.5	225.4	465.1	63.0	5.5	109.6	70.9
1965-66	591.5	186.7	404.8	69.7	6.0	92.4	82.1
1966-67	694.7	241.5	453.2	79.8	6.8	108.4	69.0
1967-68	638.6	253.4	385.2	90.1	7.5	86.4	68.5
1968-69	553.4	299.6	253.8	100.2	8.1	55.6	62.4
1969-70	757.6	357.7	399.9	110.9	8.9	94.3	44.1
1970-71	548.0	293.6	254.4	110.5	8.6	60.4	59.9
1971-72	827.0	345.4	481.6	115.7	8.8	103.4	56.3
1972-73	606.3	330.5	275.8	130.0	9.7	57.0	72.6
1973-74	555.2	344.0	211.2	148.1	10.8	56.9	26.9
1974-75	733.6	432.5	301.1	168.0	12.1	66.9	31.6
1975-76	714.6	413.1	301.5	177.3	12.7	70.3	53.2
1976-77	728.4	458.3	270.1	187.0	13.2	64.5	44.2
1977-78	726.7	423.7	303.0	197.4	13.7	68.7	35.9
1978-79	760.4	466.1	294.3	231.1	15.9	61.8	46.1
1979-80	914.0	503.2	410.8	247.4	16.8	98.6	61.8
1980-81	754.8	486.8	268.0	264.9	17.8	60.2	52.1
1981-82	942.9	499.9	443.0	278.3	18.3	96.2	39.9
1982-83	807.3	431.3	376.0	293.7	19.1	84.5	58.1
1983-84	881.1	495.1	386.0	305.8	19.6	86.7	58.3
1984-85	890.0	559.0	331.0	320.5	20.0	77.0	56.0
1985-86	906.6	509.9	396.7	325.2	19.9	100.9	54.0
1986-87	859.2	523.5	335.7	329.8	20.3	69.8	58.2
1987-88	864.4	498.0	366.4	330.5	20.0	78.8	42.0
1988-89	977.1	640.6	336.5	309.1	18.4	64.4	51.9
1989-90	936.1	602.6	333.5	300.6	17.6	65.0	38.8
1990-91	940.0	539.0	401.0	296.3	17.1	88.7	36.4
1991-92	1 111.5	635.2	476.3	314.8	18.0	101.9	44.5
1992-93	909.5	626.2	283.3	312.1	17.7	45.4	55.1
1993-94	1 080.8	777.4	303.4	319.5	17.9	50.4	41.2
1994-95	939.7	629.8	309.8	316.3	17.6	53.5	14.7
1995-96	1 095.4	883.3	212.0	307.5	16.9	37.7	15.2
1996-97	1 161.0	798.0	363.0	332.8	18.1	69.3	25.3
1997-98	1 146.7	950.8	196.0	338.8	18.2	29.0	12.3
1998-99	1 293.8	1 101.0	192.8	348.3	18.5	44.0	13.7
1999-00	1 338.5	1 129.0	209.5	369.3	19.5	31.0	4.9
2000-01	1 590.7	1 421.9	168.8	384.8	19.9	16.7	6.4
2001-02	1 833.4	1 606.3	227.1	385.3	20.0	34.0	5.9

Sources: ABS, *Australian Wine and Grape Industry*, cat. no. 1329.0, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Sales of Australian Wine and Brandy by Winemakers*, cat. no. 8504.0, Canberra; Australian Dried Fruits Corporation, *Annual Report*, Melbourne; Australian Dried Fruits Board, *Annual Report*, Melbourne; Australian Dried Fruits Association, *Australian Dried Fruits Association News*, Mildura; Australian Dried Fruits Association, Mildura; ABARE.



## Horticulture

### 142 Australian wine exports, by type and major destination

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Type</b>								
Table wine	ML	121.78	146.08	184.46	205.95	276.14	330.53	407.56
Red	ML	54.82	68.75	85.51	100.00	144.01	179.79	234.03
White	ML	66.96	77.33	98.95	105.94	132.14	150.74	173.53
Sparkling wine	ML	5.44	5.71	5.56	6.85	8.23	6.63	6.93
Carbonated wine	ML	0.82	1.00	0.89	0.36	0.21	0.37	0.90
Fortified wine	ML	2.37	2.42	2.80	2.58	2.19	2.27	1.86
Other wine	ML	1.62	1.19	0.84	0.85	1.01	0.39	0.81
<b>Total</b>	ML	131.21	155.40	193.65	216.23	287.57	339.81	417.16
<b>Major destination</b>								
Canada	\$m	25.3	29.1	37.2	50.8	73.7	91.2	123.5
China	\$m	0.2	6.2	3.0	1.7	1.6	2.2	2.4
Germany	\$m	10.1	11.9	15.4	24.9	40.9	50.1	48.0
Hong Kong, China	\$m	5.4	11.2	11.4	10.3	12.6	14.5	16.9
Ireland	\$m	16.2	18.6	23.9	27.2	37.4	40.1	42.7
Japan	\$m	10.8	12.0	27.2	25.0	29.4	29.5	30.0
Netherlands	\$m	7.8	8.1	12.2	21.3	36.2	33.9	33.4
New Zealand	\$m	34.8	39.9	5.3	60.2	65.3	77.2	84.7
Singapore	\$m	5.3	7.1	8.3	10.2	14.9	17.2	20.0
Sweden	\$m	17.4	11.9	11.1	12.7	20.3	18.6	25.2
Switzerland	\$m	8.5	11.0	15.7	19.1	28.4	30.9	30.1
Thailand	\$m	4.5	4.7	1.3	2.1	2.5	2.7	3.4
United Kingdom	\$m	211.3	257.1	362.2	446.5	590.4	689.8	842.6
United States	\$m	77.0	120.0	196.4	215.7	316.9	417.3	583.2
Other	\$m	39.1	50.5	82.1	63.5	81.8	114.8	114.3
Value	\$m	473.7	599.3	812.7	991.2	1 352.3	1 630.0	2 000.4
Unit value	\$/L	3.61	3.86	4.20	4.58	4.70	4.80	4.80

Sources: ABS, *Sales of Australian Wine and Brandy by winemakers*, cat. no. 8504.0, Canberra; Australian Wine Export Council, *Wine Export Approval Report*, Adelaide.

## 143 Australian domestic wine sales and imports, by type <sup>a</sup>

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	ML	ML	ML	ML	ML	ML	ML
Table wine	247.27	268.46	276.89	287.40	307.09	325.33	329.60
Red	68.56	83.66	87.38	99.09	114.05	125.56	130.08
White	178.71	184.80	189.51	188.31	193.04	199.76	199.52
Sparkling wine	30.15	32.06	31.07	32.62	32.57	30.66	29.42
Bottle fermented	22.92	22.88	22.31	20.29	18.22	16.71	17.42
Bulk fermented	7.23	9.18	8.76	12.33	14.35	13.95	12.00
Carbonated wine	3.09	3.43	3.17	1.45	3.51	3.29	3.12
Total unfortified wine	280.51	303.95	311.13	321.46	343.18	359.28	362.14
Total fortified wine	25.87	25.63	24.57	23.92	22.99	22.19	20.36
Vermouth and other wine	1.16	3.21	3.11	2.97	3.11	3.38	2.79
<b>Total domestic sales</b>	<b>307.54</b>	<b>332.79</b>	<b>338.81</b>	<b>348.35</b>	<b>369.28</b>	<b>384.85</b>	<b>385.29</b>
<b>Total wine</b>	<b>327.79</b>	<b>346.38</b>	<b>364.43</b>	<b>372.60</b>	<b>388.88</b>	<b>397.62</b>	<b>399.77</b>
<b>Wine imports</b>							
Table wine	16.65	10.11	21.45	20.14	14.10	8.12	9.20
Sparkling wine	2.67	2.39	3.00	2.92	3.83	2.91	3.28
Fortified wine	0.11	0.11	0.14	0.09	0.69	0.11	0.20
Other	0.83	0.99	1.04	1.11	1.00	1.64	1.80
<b>Total</b>	<b>20.26</b>	<b>13.59</b>	<b>25.62</b>	<b>24.26</b>	<b>19.61</b>	<b>12.77</b>	<b>14.48</b>

<sup>a</sup> Covers wine produced by winemakers with sales of 250 000 litres or more in the previous financial year.

Sources: ABS, *Sales of Australian Wine and Brandy by Winemakers*, cat. no. 8504.0, Canberra.

## 144 Australian wine grape production and prices

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Bearing area	'000 ha	72	78	95	110	131	143
<b>Wine grape production</b>							
Red wine	kt	260.0	350.0	435.5	538.0	794.7	910.7
White wine	kt	350.0	397.3	447.5	437.0	498.2	575.8
Multipurpose	kt	188.0	203.5	218.0	154.0	129.0	119.9
Total	kt	798.0	950.8	1 101.0	1 129.0	1 421.9	1 606.3
<b>Exports</b>							
Wine	ML	155.4	193.6	216.2	287.6	339.8	417.2
– value	A\$m	599.3	812.7	991.2	1 352.3	1 630.0	2 000.4
<b>Indicator price, Riverland</b>							
Cabernet sauvignon	A\$/t	1 136.0	1 183.0	1 150.0	868.0	825.0	803.0
Chardonnay	A\$/t	1 033.0	952.0	774.0	661.0	685.0	753.0

Sources: ABS, *Australian Wine and Grape Industry*, cat. no. 1329.0, Canberra; ABS, *Sales of Australian Wine and Brandy by Winemakers*, cat. no. 8504.0, Canberra; Phylloxera and Grape Industry Board of South Australia, Adelaide; ABARE.

## Horticulture

### 145 Retail price indexes for alcoholic beverages <sup>a</sup>

	Beer	Wine	Spirits	Consumer price index <sup>b</sup>
1980-81	46.3	56.8	47.5	49.4
1981-82	51.1	60.5	51.2	54.6
1982-83	58.2	65.8	55.6	60.9
1983-84	63.8	70.7	59.7	65.0
1984-85	69.0	75.6	63.7	67.8
1985-86	75.1	77.7	69.8	73.5
1986-87	82.8	83.9	77.1	80.4
1987-88	90.4	89.0	84.1	86.3
1988-89	91.9	96.0	91.4	92.6
1989-90	100.0	100.0	100.0	100.0
1990-91	107.0	100.9	110.6	105.3
1991-92	112.0	103.7	117.3	107.3
1992-93	115.2	105.6	119.3	108.4
1993-94	119.1	110.4	122.4	110.4
1994-95	122.7	116.0	126.4	113.9
1995-96	129.4	122.0	130.0	118.7
1996-97	132.9	124.3	134.6	120.3
1997-98	103.9	128.6	134.2	120.3
1998-99	135.9	130.3	136.6	121.8
1999-00	138.8	130.7	138.5	124.7
2000-01	151.2	137.8	147.3	132.2
2001-02	155.3	141.8	151.8	136.0

<sup>a</sup> Base: 1989-90 = 100. <sup>b</sup> Weighted average for eight capital cities.

Source: ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra.

### 146 Production and trade in Australian dried vine fruit

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>									
Dried weight	kt	54	38	69	29	44	31	17	34
Fresh weight <sup>s</sup>	kt	261	167	308	131	119	133	90	146
Gross value	\$m	100	75	125	42	66	82	57	99
Gross unit value <sup>a</sup>	\$/t	1 868.0	2 000.0	1 804.0	1 440.0	1 495.0	2 641.3	3 423.1	2 921.9
<b>Australian trade</b>									
Volume of exports	kt	15	15	25	12	14	5	6	6
Value of exports	\$m	30	34	52	30	37	13	17	14

<sup>a</sup> Weighted average based on realisations by Australian Dried Fruits Association packers (who pack over 90 per cent of Australian dried vine fruit) before deduction of packers' costs and charges. <sup>s</sup> ABARE estimate.

Source: Australian Dried Fruits Association, *Australian Dried Fruits Association News*, Mildura.

## 147 Production and exports of Australian citrus, by variety

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Navel oranges</b>									
Production	kt	203	136	201	210	149	180	246	201
Exports a	kt	49.49	46.14	68.67	73.72	60.51	68.68	99.09	86.83
– value	\$'000	47 739	46 119	70 030	76 991	74 204	86 728	111 775	110 403
<b>Valencia oranges</b>									
Production	kt	448	303	388	356	299	337	378	236
Exports a	kt	42.51	42.42	47.63	43.54	51.64	42.81	51.39	47.77
– value	\$'000	29 860	32 997	36 457	30 659	44 292	35 361	35 313	40 820
<b>Mandarins</b>									
Production	kt	70	71	83	81	94	91	79	92
Exports a	kt	7.65	11.27	12.24	12.77	16.12	16.32	27.13	23.55
– value	\$'000	12 323	17 284	19 462	20 948	22 318	25 584	37 137	40 012
<b>Lemons and limes</b>									
Production	kt	36	32	37	35	30	30	33	31
Exports a	kt	4.58	5.38	3.25	3.84	4.03	4.54	3.22	2.52
– value	\$'000	4 947	7 236	4 119	5 727	5 554	6 974	4 249	3 766
<b>Grapefruit</b>									
Production	kt	24	17	18	16	15	13	14	14
Exports a	kt	0.33	0.24	0.14	0.20	0.27	0.15	0.22	0.31
– value	\$'000	307	244	167	221	296	174	254	462

a Fresh and dried.

Sources: ABS; Australian Citrus Growers Incorporated; Australian Horticultural Corporation, *Australian Horticultural Handbook*, Sydney.

## 148 Utilisation of Australian citrus

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	kt	kt	kt	kt	kt	kt
Production	727	688	552	632	791	574
Imports	16	18	10	18	15	19
Domestic consumption	266	256	223	216	259	201
Exports	136	136	137	134	181	152
Processed	341	313	228	300	366	240

Source: Australian Citrus Growers Inc.

## Meat – general

### 149 Summary of Australian statistics for meat <sup>a</sup>

	Cattle numbers <sup>b</sup> million	Sheep numbers <sup>b</sup> million	Total red meat production <sup>c</sup> kt	Total red meat exports <sup>d</sup> kt	Total domestic consumption kt	Consumption per person			
						Beef and veal <sup>e</sup> kg	Lamb and mutton kg	Pig meat kg	Poultry meat kg
1960	16.51	155.2	1 426	330	1 024	38.7	46.0	8.3	4.4
1961	17.33	152.7	1 361	461	987	42.4	44.5	9.4	4.4
1962	18.04	157.7	1 545	556	1 030	45.3	42.4	8.8	4.4
1963	18.55	158.6	1 647	597	1 069	47.5	40.6	8.5	4.4
1964	19.05	165.0	1 718	653	1 078	45.0	38.6	8.8	5.2
1965	18.81	170.6	1 717	622	1 080	42.0	37.6	9.5	6.2
1966	17.94	157.6	1 706	564	1 047	38.6	38.0	9.8	7.4
1967	18.27	164.2	1 645	608	1 059	40.7	38.5	10.1	8.4
1968	19.22	166.9	1 720	598	1 088	41.3	40.7	10.8	9.0
1969	20.62	174.6	1 850	785	1 136	38.6	37.5	11.3	10.5
1970	22.16	174.3	1 955	775	1 120	39.6	36.4	13.6	10.4
1971	24.37	171.7	2 148	924	1 263	40.3	44.3	13.8	11.1
1972	27.37	155.4	2 283	1 168	1 240	40.4	39.3	14.6	12.3
1973	29.10	134.1	2 269	1 154	1 163	43.6	27.5	16.0	13.0
1974	30.84	139.5	1 945	665	1 278	55.0	25.4	13.1	13.4
1975	32.80	145.8	2 364	1 001	1 415	62.0	23.4	11.7	13.4
1976	33.43	144.1	2 670	1 204	1 421	69.1	20.9	12.1	14.4
1977	31.54	131.3	2 889	1 420	1 440	69.0	19.3	13.0	15.6
1978	29.33	127.5	2 824	1 449	1 370	64.5	16.9	13.3	16.6
1979	27.12	130.5	2 513	1 334	1 229	50.8	21.0	13.5	18.7
1980	26.20	132.7	2 311	1 159	1 180	44.9	19.9	15.5	20.1
1981	25.17	131.4	2 172	939	1 232	47.4	19.3	15.3	20.2
1982	24.55	135.0	2 473	1 184	1 294	49.4	20.7	14.8	19.4
1983	22.48	130.5	2 131	948	1 218	42.7	20.8	15.9	20.2
1984	22.17	135.1	2 003	709	1 301	44.5	22.4	16.4	19.8
1985	22.78	145.7	2 162	na	1 288	40.8	24.7	16.7	21.6
1986	23.44	150.4	2 341	na	1 307	41.5	22.8	17.2	22.8
1987	23.67	153.2	2 452	na	1 313	40.3	23.2	17.3	23.2
1988	23.52	156.5	2 404	1 103	1 315	40.5	21.5	17.8	23.8
1989	24.04	164.9	2 465	1 078	1 403	42.4	23.1	17.8	24.0
1990	24.87	173.4	2 705	1 333	1 359	39.6	21.5	18.5	24.8
1991	25.38	166.6	2 739	1 394	1 373	39.2	21.9	18.5	25.1
1992	25.33	151.0	2 827	1 498	1 344	36.8	20.3	19.1	25.1
1993	25.18	140.5	2 805	1 471	1 328	36.5	19.8	18.4	26.5
1994	25.76	132.6	2 863	1 479	1 424	39.1	21.4	19.4	27.4
1995	25.73	120.9	2 656	1 379	1 301	35.2	17.1	19.6	26.9
1996	26.38	121.1	2 634	1 300	1 379	40.4	16.7	18.9	27.7
1997	26.69	120.2	2 883	1 493	1 429	41.8	17.0	18.9	29.4
1998	26.85	117.5	2 973	1 600	1 385	38.0	17.1	18.8	30.8
1999	26.58	115.5	2 982	1 629	1 411	37.9	16.3	18.7	31.3
2000	27.59	118.6	3 103	1 745	1 431	36.3	18.2	19.8	32.9
2001	27.74	110.9	3 130	1 835	1 347	33.7	17.3	18.1	32.6

<sup>a</sup> Data up to 1970 are on a financial year (July–June) basis (1970 = 1970–71). <sup>b</sup> Before 1987, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$2 500 or more. From 1987, the EVAO was raised to \$5 000. <sup>c</sup> Beef and veal, mutton and lamb and pig meat production, expressed in carcass weight. <sup>d</sup> Before 1970, the exportable surplus of meat was derived by subtracting consumption from production, expressed in carcass weight. <sup>e</sup> Includes canned beef and veal before 1976. **na** Not available.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra; ABARE.

# 150 Australian saleyard prices of livestock <sup>a</sup>

	Yearling c/kg	Ox c/kg	Cow c/kg	Weighted average c/kg	Lamb c/kg	Mutton c/kg	Pig c/kg
1975	37.4	32.1	22.8	30.4	58.9	15.4	107.5
1976	47.0	48.3	32.2	40.1	61.2	18.9	107.4
1977	50.4	49.7	42.2	46.1	73.2	38.4	106.5
1978	70.3	70.4	61.2	65.9	87.8	46.9	114.9
1979	152.9	148.7	136.2	144.2	112.4	69.7	145.8
1980	150.8	149.0	131.8	141.4	130.4	72.1	142.2
1981	140.3	126.1	111.6	123.7	128.8	69.2	170.9
1982	126.9	119.3	101.2	113.2	106.3	45.8	193.7
1983	166.8	157.5	136.9	150.5	108.6	45.3	162.4
1984	194.5	164.1	149.4	166.8	113.1	48.5	171.1
1985	193.0	173.8	155.6	171.3	89.1	35.8	176.9
1986	197.5	183.2	155.2	174.3	116.1	34.8	182.2
1987	207.6	196.3	167.3	186.7	128.5	43.0	186.3
1988	232.4	210.2	179.9	203.6	132.3	61.7	201.0
1989	245.8	213.5	185.1	212.6	137.7	45.4	222.1
1990	247.4	219.2	183.3	213.4	137.0	16.5	201.4
1991	229.5	219.6	176.2	202.1	120.6	11.2	214.3
1992	226.7	225.4	174.2	200.3	131.4	28.9	196.1
1993	244.9	250.1	184.8	218.6	185.1	33.8	213.0
1994	257.8	243.9	187.0	222.6	148.5	34.5	202.3
1995	238.3	216.9	169.2	201.8	189.1	68.4	218.1
1996	185.4	163.2	129.9	155.3	233.8	67.7	247.4
1997	190.0	184.7	135.3	162.6	200.0	75.2	218.6
1998	208.2	203.3	158.3	181.0	178.4	79.3	179.9
1999	233.1	215.4	183.5	204.3	204.9	60.6	216.0
2000	261.8	246.1	219.7	237.1	173.5	71.8	249.1
2001	331.0	315.5	289.4	307.2	265.7	146.0	275.7
<b>2001</b>							
January	281.0	259.9	233.1	252.2	208.4	71.6	259.2
February	284.4	270.5	255.7	266.8	239.3	89.2	250.4
March	302.2	288.7	264.6	280.6	241.9	110.6	249.8
April	323.2	304.8	280.1	297.7	253.2	148.4	258.4
May	319.5	307.1	277.3	295.4	230.9	154.2	262.4
June	321.4	305.4	274.9	294.1	284.0	176.8	267.1
July	334.1	316.8	283.0	305.3	302.6	169.6	276.4
August	361.8	349.7	316.3	337.3	317.0	186.3	283.3
September	379.7	376.7	344.1	363.3	307.8	189.6	289.1
October	344.0	327.5	304.9	322.2	257.0	150.0	295.7
November	357.8	348.4	329.1	342.2	270.5	151.1	305.1
December	362.5	330.9	309.2	329.6	276.2	155.1	312.0
<b>2002</b>							
January	329.9	302.6	276.1	296.6	311.5	159.8	303.0
February	320.4	299.5	277.4	294.3	371.9	196.9	285.8
March	328.9	312.8	287.2	304.5	362.7	201.8	277.0
April	320.3	291.8	262.5	284.7	337.2	205.0	259.3
May	294.8	265.6	225.5	252.9	322.5	211.8	238.4
June	281.2	247.5	205.1	233.7	329.4	214.9	227.0

<sup>a</sup> Prices are on an estimated dressed weight basis and, with the exception of 'yearling', are for export quality stock: ox, 301–350 kilograms; cow, 201–260 kilograms; before January 1996, lamb, 16–18 kilograms, score 3; from January 1996, lamb, 18–20 kilograms, score 3; mutton, 18–24 kilograms, score 3; and pig, 60–73 kilograms. Quotation is the monthly average of fat stock prices in each major state market, weighted by the monthly production of each meat in the respective states.

Sources: Meat and Livestock Australia, *Meat the Market*, Sydney; National Livestock Reporting Service; ABARE.

## Meat – general

### 151 Australian retail prices of meat

	Beef a c/kg	Lamb a c/kg	Pork a c/kg	Chicken b c/kg
1980	545.7	370.7	384.0	204.5
1981	542.0	368.0	439.3	235.0
1982	545.8	366.5	490.9	248.0
1983	619.3	384.5	505.9	258.3
1984	653.7	398.4	507.7	254.6
1985	682.6	396.1	537.9	269.5
1986	708.3	433.1	556.9	275.2
1987	747.0	481.6	586.6	288.6
1988	814.5	519.6	621.9	285.7
1989	909.0	554.4	679.9	311.3
1990	961.6	582.6	700.2	310.1
1991	974.0	570.7	710.0	302.6
1992	963.7	551.8	698.7	298.2
1993	963.7	620.8	716.7	295.6
1994	997.4	611.0	719.6	301.0
1995	1 008.2	655.0	732.2	303.8
1996	1 001.8	708.8	771.7	333.5
1997	978.0	704.7	798.1	365.9
1998	982.3	696.1	773.7	344.3
1999	1 010.8	723.3	807.7	356.6
2000	1 064.3	715.2	850.1	355.7
2001	1 214.2	847.5	945.6	363.6
<b>1998</b>				
March	986.0	691.8	795.5	353.5
June	984.2	702.6	765.5	338.2
September	983.2	698.6	770.4	334.2
December	975.7	691.2	763.5	351.3
<b>1999</b>				
March	984.2	709.5	778.1	357.3
June	1 016.2	742.2	788.5	354.1
September	1 018.1	725.0	807.3	355.2
December	1 024.7	716.4	856.7	359.9
<b>2000</b>				
March	1 048.3	721.0	869.9	356.4
June	1 074.7	737.0	834.4	365.4
September	1 056.7	723.8	848.4	358.6
December	1 064.3	715.2	847.7	342.3
<b>2001</b>				
March	1 114.2	765.1	889.4	370.7
June	1 214.2	847.5	920.1	342.4
September	1 253.8	897.4	962.5	364.1
December	1 322.6	921.4	1 010.5	377.2
<b>2002</b>				
March	1 328.2	962.1	1 047.4	399.3
June	1 339.5	1 007.9	1 021.7	395.1

a Price estimates are formed by indexing forward from actual average prices of beef, lamb, mutton, pork and chicken during December quarter 1973, based on meat subgroup indexes of the consumer price index. These indexes are based on average retail prices of selected cuts (weighted by expenditure) in state capitals. b Retail frozen.

Source: ABS, *Consumer Price Index*, cat. no. 6401.0, Canberra; ABS, *Average Retail Prices of Selected Items*, cat. no. 6403.0, Canberra.

# 152 Prices for Australian meat on principal overseas markets

	Beef				Mutton	Lamb	
	United States		Japan <sup>a</sup>		Japan <sup>a</sup>	United Arab Emirates <sup>a</sup>	United States <sup>a</sup>
	Boneless frozen <sup>b</sup> US\$/kg cif	Boneless frozen <sup>b</sup> A\$/kg fas	Boneless frozen A\$/kg fob	Boneless chilled A\$/kg fob	Boneless chilled <sup>c</sup> A\$/kg fob	Carcasses frozen A\$/kg fob	Bone-in frozen A\$/kg fob
1980	263.0	200.0	na	na	na	166.0	na
1981	245.0	175.0	217.0	274.0	181.0	168.0	na
1982	230.0	190.0	230.0	285.0	174.0	164.0	na
1983	241.0	227.0	268.0	363.0	152.0	155.0	na
1984	226.0	222.0	273.0	352.0	170.0	167.0	na
1985	212.0	260.0	305.0	397.0	172.0	160.0	na
1986	201.0	262.0	308.0	439.0	159.0	166.0	na
1987	229.0	283.0	341.0	464.0	186.0	184.0	na
1988	245.0	270.0	336.9	477.2	172.8	188.9	238.4
1989	270.7	295.0	339.4	527.3	189.7	186.3	231.2
1990	266.5	301.0	366.9	523.5	241.2	176.9	223.2
1991	265.5	304.4	344.1	571.5	190.3	199.2	229.1
1992	247.5	301.4	335.6	567.6	246.4	239.2	244.8
1993	265.2	354.9	318.7	585.2	283.8	213.3	299.8
1994	239.3	297.7	308.7	576.3	270.8	192.5	259.6
1995	194.5	228.5	269.5	582.1	310.0	213.1	277.0
1996	173.8	188.7	228.3	473.3	298.2	217.3	327.6
1997	188.4	218.9	236.7	486.8	263.4	234.4	351.4
1998	175.5	244.3	253.9	523.9	324.9	249.2	398.8
1999	189.9	259.7	270.9	540.7	344.5	222.8	374.2
2000	195.4	308.8	311.9	566.5	559.7	272.9	380.5
2001	214.4	384.0	374.6	650.3	717.8	290.6	472.9
<b>2000</b>							
March	198.8	289.9	292.0	545.4	581.2	226.1	307.9
June	198.4	308.0	314.8	569.4	569.0	297.7	376.1
September	193.0	306.9	309.8	555.2	734.7	256.0	387.7
December	191.5	332.5	330.8	596.0	354.0	311.9	450.2
<b>2001</b>							
March	199.7	350.9	343.0	627.8	827.7	244.9	360.4
June	203.0	362.1	363.6	643.6	840.9	308.6	435.5
September	227.8	410.0	384.4	657.3	641.7	293.6	586.5
December	227.0	410.4	407.4	672.3	560.9	315.4	509.2
<b>2002</b>							
March	233.8	416.9	378.2	668.3	848.0	338.8	632.4
June	221.6	368.5	338.7	625.3	765.8	333.6	538.0

<sup>a</sup> Average unit value of exports. <sup>b</sup> Beef that is 90 per cent chemical lean. <sup>c</sup> Fresh, chilled. Before and including 1987, figures are for the financial year ending June of the year quoted, from 1988 figures are for the calendar year ending December. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Meat and Livestock Australia, *Meat the Market*, Sydney.



## Meat – general

### 153 Australian exports of meat, by product <sup>a</sup>

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity</b>									
Beef and veal <sup>b</sup>	kt	785	738	730	821	883	852	959	902
Mutton <sup>b</sup>	kt	168	141	138	163	155	171	180	158
Lamb <sup>b</sup>	kt	52	52	63	71	85	99	115	109
Pig meat <sup>b</sup>	kt	5	6	7	12	16	39	44	59
Poultry meat <sup>b</sup>	kt	9	10	12	14	19	17	21	21
Canned meat	kt	16	10	8	11	12	10	3	6
Live sheep <sup>c</sup>	'000	5 697	5 880	5 237	4 961	4 959	4 859	5 936	6 443
Live cattle <sup>c</sup>	'000	384	616	864	692	713	846	846	797
<b>Value <sup>d</sup></b>									
Beef and veal <sup>e</sup>	\$m	2 846	2 384	2 071	2 610	2 863	3 119	4 007	4 189
Mutton <sup>e</sup>	\$m	323	299	288	369	309	326	416	490
Lamb <sup>e</sup>	\$m	172	199	240	275	305	369	508	626
Pig meat	\$m	23	30	33	52	71	159	186	265
Poultry meat	\$m	13	13	14	18	23	21	26	26
Canned meat <sup>e</sup>	\$m	59	39	34	47	53	50	16	39
Live sheep <sup>c</sup>	\$m	184	227	190	193	182	180	258	392
Live cattle <sup>c</sup>	\$m	201	344	428	333	343	433	482	526
Total	\$m	3 821	3 535	3 298	3 896	4 148	4 656	5 898	6 553
<b>Unit value <sup>d</sup></b>									
Beef and veal	\$/kg	3.63	3.23	2.83	3.18	3.24	3.66	4.18	4.65
Mutton	\$/kg	1.93	2.12	2.09	2.27	1.99	1.91	2.31	3.09
Lamb	\$/kg	3.23	3.68	3.87	3.87	3.77	3.78	4.38	5.29
Pig meat	\$/kg	4.31	5.35	4.97	4.21	4.31	4.05	4.22	4.50
Poultry meat	\$/kg	1.38	1.35	1.25	1.31	1.21	1.22	1.23	1.23
Live sheep	\$/head	32.35	38.59	36.27	38.96	36.64	37.12	43.41	60.79
Live cattle	\$/head	531.21	567.31	496.43	483.64	476.89	514.68	575.88	664.48

<sup>a</sup> Excludes re-exports and ships' stores. <sup>b</sup> Fresh, chilled and frozen; shipped weight. <sup>c</sup> Excludes animals for breeding. <sup>d</sup> fob. <sup>e</sup> Based on quantity data from AFFA and export price data from the ABS.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra; ABARE.

# 154

## Summary of world statistics for livestock

	Livestock numbers		Production				EU stocks
	Cattle million	Sheep million	Beef and veal Mt	Mutton and lamb Mt	Pig meat Mt	Poultry meat Mt	Beef and veal kt
1960	na	na	na	na	na	na	na
1961	941	994	27.7	4.9	24.7	8.9	na
1962	957	997	29.2	5.0	26.1	9.2	na
1963	970	999	30.9	5.0	28.0	9.7	na
1964	988	1 013	31.3	5.0	28.7	10.1	na
1965	1 008	1 030	31.9	5.0	31.3	11.0	na
1966	1 028	1 040	33.6	5.1	32.4	11.7	na
1967	1 050	1 058	35.3	5.3	33.9	12.4	na
1968	1 063	1 072	37.0	5.4	34.4	12.8	na
1969	1 070	1 079	37.9	5.4	34.1	13.7	na
1970	1 082	1 061	38.4	5.5	35.8	15.1	na
1971	1 097	1 064	38.0	5.6	39.4	15.7	na
1972	1 120	1 036	38.5	5.7	40.6	16.8	na
1973	1 139	1 015	38.8	5.4	40.4	17.6	na
1974	1 166	1 027	41.8	5.1	42.4	18.2	na
1975	1 187	1 046	43.7	5.3	41.6	18.6	na
1976	1 199	1 046	46.1	5.3	40.7	20.0	na
1977	1 204	1 036	46.4	5.3	42.9	21.2	na
1978	1 206	1 049	46.9	5.4	45.6	22.7	na
1979	1 210	1 067	45.7	5.4	50.1	24.4	na
1980	1 216	1 096	45.5	5.6	52.7	25.9	na
1981	1 228	1 110	45.9	5.9	53.0	27.5	na
1982	1 243	1 129	45.8	5.9	53.1	28.3	203.3
1983	1 248	1 124	47.0	6.1	55.4	29.1	372.5
1984	1 254	1 119	48.4	6.1	57.4	29.7	604.3
1985	1 259	1 119	49.2	6.2	59.9	31.1	644.1
1986	1 266	1 115	50.9	6.2	61.4	33.2	459.7
1987	1 266	1 136	51.0	6.4	63.5	35.7	686.2
1988	1 271	1 150	51.4	6.6	67.0	37.5	379.0
1989	1 287	1 178	51.7	6.8	68.0	38.7	113.0
1990	1 296	1 189	52.9	7.0	69.8	40.9	512.0
1991	1 297	1 164	53.6	7.1	70.8	42.9	708.0
1992	1 299	1 135	52.4	7.1	72.9	45.1	872.0
1993	1 298	1 107	51.9	7.2	75.3	47.7	334.0
1994	1 311	1 093	47.3	6.6	77.5	51.5	40.0
1995	1 332	1 091	54.1	7.3	78.5	54.4	8.0
1996	1 338	1 073	54.6	7.1	78.4	56.0	420.0
1997	1 333	1 057	55.3	7.1	82.1	59.6	615.0
1998	1 331	1 053	55.2	10.7	87.6	62.2	513.0
1999	1 332	1 053	56.2	11.1	86.7	65.2	25.0
2000	1 346	1 058	56.5	11.4	89.6	68.0	2.0
2001	1 352	1 056	56.6	11.3	91.2	69.9	295.0

na Not available.

Sources: FAO, *FAOSTAT Agriculture Database*, Rome; UK Meat and Livestock Commission, *International Meat Market Review*, Economics Information Services, London.

## Meat – general

### 155 Summary of US meat statistics

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Cattle numbers a</b>	million	101.0	102.8	103.5	101.7	99.7	99.1	98.2	97.3
<b>Beef and veal b</b>									
Production c	kt	11 194	11 585	11 749	11 714	11 804	12 124	12 298	11 890
Imports	kt	1 075	954	940	1 063	1 199	1 304	1 375	1 435
Exports and shipments	kt	731	826	851	969	985	1 096	1 141	1 029
Total consumption	kt	11 528	11 726	11 904	11 767	12 051	12 324	12 481	12 259
Consumption per person	kg	43.6	44.1	44.9	43.3	44.5	45.2	44.4	43.5
<b>Pork b</b>									
Production c	kt	8 027	8 097	7 765	7 835	8 623	8 758	8 596	8 691
Imports	kt	337	301	280	287	320	375	439	431
Exports and shipments	kt	241	350	431	474	558	580	584	709
Total consumption	kt	8 087	8 059	7 628	7 629	8 305	8 596	8 457	8 391
Consumption per person	kg	30.6	30.7	28.7	28.1	30.7	31.8	30.1	29.5
<b>Poultry d</b>									
Production c	kt	13 206	13 786	14 522	14 951	15 128	15 990	16 362	16 476
Exports and shipments	kt	1 472	2 325	2 324	2 561	2 515	2 582	2 825	3 027
Total consumption	kt	11 682	12 138	12 131	12 363	12 620	13 395	13 546	13 495
Consumption per person	kg	45.3	46.1	45.7	46.2	46.7	49.1	49.3	47.5

a At 1 January. b Carcass weight equivalent. c Refers to commercial production, which excludes farm slaughter. d Retail weight equivalent.

Sources: US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC.

### 156 Summary of New Zealand meat statistics a

	Unit	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
<b>Livestock numbers b</b>									
Cattle	million	8.3	8.9	9.3	9.0	9.1	8.9	9.0	9.0
– dairy cattle	million	3.6	3.8	4.1	4.2	4.3	4.4	4.3	4.4
– beef cattle	million	4.8	5.0	5.2	4.9	4.8	4.4	4.6	4.7
Sheep	million	50.3	49.5	48.8	47.4	46.8	46.0	45.7	45.4
<b>Production c</b>									
Beef and veal	kt	538.0	630.0	631.0	646.0	620.0	562.0	547.9	570.9
Lamb	kt	398.0	390.0	375.0	419.0	416.5	401.0	427.8	433.4
Mutton	kt	125.0	144.0	134.0	124.0	128.6	116.6	104.9	128.6
<b>Exports of meat d</b>									
Beef and veal	kt	305.3	341.4	335.6	346.0	353.8	300.0	310.9	329.0
Lamb	kt	274.1	282.6	298.0	290.0	282.0	271.1	296.5	298.8
Mutton	kt	62.3	64.2	72.4	64.5	59.7	54.4	50.4	58.0
<b>Consumption per person ce</b>									
Beef and veal	kg	31.4	35.0	38.0	40.6	40.3	31.3	31.0	27.1
Lamb	kg	9.3	10.5	10.0	10.2	10.0	7.7	10.2	9.7
Mutton	kg	12.1	12.7	10.6	7.8	8.0	6.6	7.5	6.9

a October–September year. b At 30 June of first year shown. c Carcass weight. d Shipped weight. e Excludes meat withdrawn from export stocks for local consumption.

Sources: Meat New Zealand, *Annual Report*, Wellington; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry*, Wellington.

# 157

## Gross value of Australian livestock slaughterings

	1996-97 \$m	1997-98 \$m	1998-99 \$m	1999-00 \$m	2000-01 \$m	2001-02 \$m
<b>Livestock slaughterings</b>						
Cattle and calves <b>a</b>	3 169.3	3 805.1	4 133.9	4 616.1	5 734.9	6 475.5
Cattle exported live <b>b</b>	427.7	333.1	342.7	432.6	481.8	525.5
Sheep <b>c</b>	215.8	298.5	226.6	204.6	373.2	579.9
Lambs <b>cd</b>	636.8	574.4	645.2	668.6	788.3	1 098.5
Sheep exported live <b>b</b>	189.9	193.3	181.7	180.3	257.7	391.7
Pigs	764.8	709.8	689.7	791.7	822.3	968.1
Poultry	932.0	1 053.6	1 018.5	1 030.8	1 060.2	1 215.8
<b>Total</b>	<b>6 336.3</b>	<b>6 967.8</b>	<b>7 238.3</b>	<b>7 924.7</b>	<b>9 518.4</b>	<b>11 255.0</b>

**a** Includes dairy cattle slaughtered. **b** Excludes animals for breeding. **c** Excludes skin values. **d** New lamb saleyard indicator weight introduced in July 1995. New weight indicator 18–20 kilograms dressed weight used from 1995-96; before 1995-96, 16–18 kilograms dressed weight.

*Note:* The gross value of production is the value placed on recorded production at the wholesale prices realised in the market place. The point of measurement can vary between commodities. Generally the market place is the metropolitan market in each state and territory. However, where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the market place. Prices used in these calculations do not include the GST.

*Sources:* ABS; ABARE.

## Meat – beef and veal

# 158 Australian supply and use of beef and veal

	Slaughterings a '000	Average weight b kg	Production b kt	Exports bc kt	Consumption bd kt
1960	4 403	168	740	na	na
1961	4 700	139	652	na	na
1962	5 672	145	820	na	na
1963	6 136	154	943	na	na
1964	6 554	153	1 005	na	na
1965	6 564	154	1 013	na	na
1966	6 231	152	946	na	na
1967	5 597	155	869	na	na
1968	5 508	165	907	na	na
1969	5 788	164	952	na	na
1970	5 727	176	1 011	510	na
1971	6 093	173	1 054	574	na
1972	7 491	159	1 192	780	na
1973	8 443	172	1 453	920	na
1974	6 988	184	1 282	530	na
1975	9 596	171	1 638	777	na
1976	11 434	166	1 899	905	917
1977	12 791	169	2 158	1 138	986
1978	12 345	173	2 131	1 199	937
1979	9 839	180	1 770	1 096	728
1980	8 833	174	1 534	883	663
1981	8 099	176	1 422	711	716
1982	9 460	177	1 678	942	754
1983	8 118	174	1 414	767	655
1984	6 824	186	1 272	581	695
1985	7 151	187	1 338	690	637
1986	7 883	188	1 481	809	668
1987	8 048	194	1 564	908	654
1988	7 723	201	1 551	890	669
1989	7 483	210	1 573	872	718
1990	8 253	211	1 738	1 064	680
1991	8 427	208	1 749	1 080	677
1992	8 731	210	1 834	1 191	648
1993	8 343	217	1 814	1 169	642
1994	8 366	221	1 845	1 164	690
1995	7 906	217	1 719	1 106	633
1996	7 968	218	1 734	1 028	731
1997	9 148	212	1 939	1 189	766
1998	9 308	213	1 987	1 278	711
1999	8 756	227	1 991	1 272	722
2000	8 734	232	2 025	1 329	698
2001	8 749	237	2 072	1 407	667

a Includes calves. b Carcass weight. c Includes canned and miscellaneous product. d Apparent consumption. na Not available.

Sources: ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra; ABARE.

# 159 Australian cattle numbers, by state and territory <sup>a</sup>

	New South Wales '000	Victoria '000	Queensland '000	South Australia '000	Western Australia '000	Tasmania '000	Northern Territory '000	Australian Capital Territory '000	Australia '000
<b>Adult female beef cattle</b>									
1992	2 915	1 254	4 999	458	810	221	771	6	11 434
1993	3 063	1 237	4 964	544	880	230	809	7	11 733
1994	3 243	1 325	4 884	576	951	245	846	7	12 076
1995	2 910	1 229	4 522	529	946	224	847	7	11 213
1996	2 963	1 287	4 775	534	934	233	848	7	11 667
1997	3 039	1 286	4 958	528	928	242	892	7	11 879
1998	2 863	1 119	5 145	540	964	232	915	5	11 783
1999	2 859	1 054	5 071	514	948	224	946	5	11 621
2000	2 801	1 134	5 667	480	1 086	194	913	6	12 282
2001	2 849	4 405	11 376	1 242	2 128	636	1 707	11	27 722
2002	na	na	na	na	na	na	na	na	na
<b>Total beef cattle and calves</b>									
1992	5 720	2 564	10 161	926	1 592	498	1 358	11	22 830
1993	5 768	2 439	9 987	1 011	1 596	488	1 349	12	22 650
1994	6 127	2 604	9 656	1 056	1 683	507	1 434	13	23 080
1995	5 867	2 659	9 689	1 064	1 773	507	1 419	13	22 991
1996	6 019	2 714	9 928	1 069	1 803	521	1 502	13	23 569
1997	6 118	2 627	10 130	1 024	1 787	515	1 609	13	23 736
1998	5 922	2 306	10 562	1 051	1 848	510	1 566	10	23 776
1999	5 846	2 180	10 444	1 006	1 817	491	1 566	9	23 358
2000	5 531	2 371	11 503	995	2 059	411	1 570	10	24 448
2001	6 012	2 663	11 289	1 136	2 082	455	1 722	12	24 519
2002	na	na	na	na	na	na	na	na	24 925
<b>Total dairy cattle and calves</b>									
1992	340	1 472	280	139	113	154	2	0	2 500
1993	343	1 484	282	143	117	161	2	0	2 532
1994	364	1 585	286	147	123	172	1	0	2 678
1995	370	1 621	285	152	126	185	1	0	2 740
1996	371	1 682	286	150	121	197	1	0	2 808
1997	393	1 784	292	157	122	211	0	0	2 958
1998	429	1 836	305	162	124	218	1	0	3 076
1999	445	1 945	304	177	114	233	1	0	3 220
2000	440	1 893	305	189	106	206	1	0	3 140
2001	458	2 076	297	207	128	228	0	0	3 217
2002	na	na	na	na	na	na	na	na	3 101
<b>Total cattle and calves</b>									
1992	6 060	4 036	10 441	1 065	1 705	652	1 360	11	25 330
1993	6 111	3 923	10 269	1 154	1 713	649	1 351	12	25 182
1994	6 491	4 189	9 942	1 202	1 806	679	1 435	13	25 758
1995	6 236	4 280	9 974	1 216	1 899	793	1 421	13	25 731
1996	6 390	4 396	10 214	1 219	1 924	718	1 503	14	26 377
1997	6 511	4 411	10 415	1 181	1 909	725	1 530	13	26 695
1998	6 351	4 142	10 867	1 214	1 973	728	1 567	10	26 851
1999	6 291	4 125	10 748	1 183	1 931	724	1 567	10	26 578
2000	5 970	4 264	11 808	1 184	2 165	617	1 571	10	27 588
2001	6 470	4 739	11 586	1 343	2 210	683	1 722	12	27 736
2002	na	na	na	na	na	na	na	na	28 500

<sup>a</sup> At 31 March, an establishment with an estimated value of agricultural operations (EVAO) of \$5 000 or more. From 2000, at 30 June. From 1991, house cows are excluded. **na** Not available.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.

## Meat – beef and veal

### 160 Australian exports of beef, veal and live cattle, by destination <sup>a</sup>

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Beef and veal</b>									
<b>Americas</b>									
Canada	kt	59.6	32.9	30.3	33.0	40.9	40.8	40.5	48.9
United States	kt	263.4	220.9	182.0	224.1	290.8	299.1	362.8	401.3
<b>Asia</b>									
Chinese Taipei	kt	34.3	31.0	23.7	35.4	34.2	35.2	30.0	29.5
Hong Kong, China	kt	2.4	5.4	4.9	3.9	7.2	4.0	5.1	4.5
Indonesia	kt	4.8	10.6	17.2	25.0	2.0	12.7	15.4	13.0
Japan	kt	323.1	324.0	287.4	322.6	327.8	319.9	321.7	320.8
Korea, Rep. of	kt	56.0	65.4	60.3	60.3	36.3	80.8	80.6	64.0
Malaysia–Singapore	kt	9.4	12.2	11.9	14.5	13.3	13.3	12.9	11.9
Philippines	kt	6.7	15.5	21.2	28.1	20.9	21.8	15.9	20.0
Other	kt	2.3	4.8	5.7	5.9	5.7	4.4	3.3	3.5
<b>Europe</b>									
European Union <sup>b</sup>	kt	7.7	10.4	14.9	14.3	16.4	10.3	8.7	6.9
Other western Europe	kt	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
CIS	kt	0.2	3.6	4.2	13.0	23.6	9.7	3.1	8.2
Eastern Europe	kt	0.1	9.3	13.9	10.6	16.8	2.1	2.0	0.4
<b>Middle East</b>									
Saudi Arabia	kt	0.3	0.3	2.6	1.5	2.6	1.1	0.9	5.5
Other	kt	1.0	1.1	4.0	3.1	12.4	7.8	3.5	6.0
<b>Oceania</b>									
New Zealand	kt	3.2	3.9	3.8	2.0	2.0	1.8	4.2	4.0
Pacific Isles	kt	1.8	2.9	3.3	3.5	3.5	2.5	2.8	2.4
Papua New Guinea	kt	11.6	10.3	7.4	4.1	2.7	3.1	2.8	3.8
Other	kt	8.2	6.6	14.7	19.9	23.0	13.1	13.4	18.6
Total beef and veal	kt	796.0	771.2	713.7	824.7	882.2	883.5	929.4	973.2
<b>Live cattle</b>									
<b>Slaughter cattle</b>									
<b>Asia</b>									
Indonesia	'000	118.0	217.8	386.5	421.7	41.2	159.5	296.7	287.7
Japan	'000	11.0	9.8	14.9	19.4	17.0	12.4	14.4	17.4
Malaysia	'000	29.4	37.6	44.0	57.5	42.7	65.2	56.5	77.5
Philippines	'000	120.3	186.2	200.0	253.8	215.9	266.1	223.8	97.4
<b>Middle East</b>									
Egypt	'000	0.0	15.5	52.2	37.5	119.6	240.5	207.6	203.2
Libya	'000	2.7	0.0	10.0	105.3	120.7	23.1	0.0	0.0
Other	'000	9.5	11.7	16.5	15.2	39.9	66.9	88.2	114.6
Total	'000	290.9	478.7	724.1	910.5	597.0	833.7	887.0	797.9
Breeding cattle	'000	10.3	38.2	17.0	35.2	24.1	10.6	9.0	24.6
Total live cattle	'000	301.1	517.0	741.1	945.7	621.1	844.2	896.0	822.5

<sup>a</sup> Fresh, chilled or frozen, in shipped weight. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Meat – beef and veal

### 161 Value of Australian exports of beef and veal, and live cattle (fob)

	1994	1995	1996	1997	1998	1999	2000	2001
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Beef and veal</b>								
Americas								
Canada	147.7	81.1	62.3	76.0	111.0	120.7	144.6	196.3
United States	742.4	516.9	358.1	507.7	749.6	827.1	1 207.8	1 714.8
Asia								
Chinese Taipei	126.7	112.5	63.9	114.2	109.7	125.0	122.4	134.1
Hong Kong, China	14.3	22.4	18.4	15.4	27.5	20.3	26.1	25.5
Indonesia	17.1	31.3	41.9	60.9	7.2	36.4	47.9	50.4
Japan	1 611.7	1 562.8	1 113.1	1 250.1	1 340.7	1 398.5	1 518.2	1 737.2
Korea, Rep. of	154.4	173.2	140.7	143.2	94.9	209.4	243.8	258.0
Malaysia-Singapore	31.1	35.8	31.2	40.8	40.0	42.5	45.6	46.4
Philippines	13.7	31.2	37.8	53.8	41.8	41.1	38.1	56.7
Other	7.7	14.2	16.0	19.1	17.3	13.2	12.8	15.3
Europe								
European Union <sup>a</sup>	49.8	57.8	71.4	70.7	85.9	71.4	58.0	51.8
Other Western Europe	1.1	1.0	0.5	0.4	0.5	0.7	0.4	0.5
CIS	0.3	7.2	8.5	28.4	56.2	20.9	8.3	22.4
Eastern Europe	0.2	18.6	26.2	23.5	39.2	5.7	6.1	1.4
Middle East								
Saudi Arabia	1.0	1.0	6.8	4.1	7.4	3.7	3.5	25.6
Other	4.2	4.0	14.0	10.6	43.9	28.6	16.9	32.4
Oceania								
New Zealand	9.1	8.2	7.6	3.8	4.8	5.8	14.9	17.8
Pacific Isles	24.2	23.4	19.0	14.4	12.3	11.3	12.4	17.6
Papua New Guinea	19.2	17.0	12.0	7.2	4.7	5.4	5.5	9.1
Other	3.6	3.6	19.6	38.3	58.8	30.9	39.6	73.1
Total beef and veal	2 979.3	2 723.1	2 068.9	2 482.5	2 853.5	3 018.8	3 573.0	4 486.4
<b>Live cattle <sup>b</sup></b>								
Asia								
Indonesia	64.3	134.2	210.8	209.4	18.0	68.5	143.1	171.8
Japan	7.2	6.4	9.5	14.9	11.6	7.8	9.8	12.7
Malaysia	14.5	20.2	20.7	26.3	15.3	29.9	25.7	38.5
Philippines	49.8	87.2	93.4	117.9	87.7	126.7	117.8	58.4
Middle East								
Egypt	0.0	10.0	27.7	19.3	61.6	131.2	129.7	153.8
Libya	2.0	0.0	4.6	57.7	64.9	13.5	0.0	0.0
Other	6.6	8.1	9.3	8.4	21.2	31.6	45.6	79.2
Total live cattle	144.3	266.2	375.9	453.8	280.3	409.2	471.7	514.4

<sup>a</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>b</sup> Excludes animals for breeding.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



## Meat – beef and veal

### 162 World cattle numbers, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	million	million	million	million	million	million	million	million
Argentina	54.9	54.2	53.6	51.7	48.0	49.1	48.7	50.2
Australia <sup>b</sup>	25.8	25.7	26.4	26.7	26.9	26.6	27.6	27.7
Brazil	158.2	161.2	158.3	161.4	163.2	164.6	169.9	171.8
Canada	12.0	12.7	13.4	13.4	13.2	12.9	12.8	13.0
China <sup>c</sup>	90.9	100.6	99.5	90.8	99.4	101.9	104.6	105.7
European Union <sup>d</sup>	78.6	78.8	79.1	78.8	77.7	77.1	82.2	81.3
France	20.1	20.5	20.7	20.6	20.0	20.3	20.5	20.5
Germany	15.9	16.0	15.9	15.8	15.2	14.9	14.7	14.6
Italy	7.6	7.3	7.4	7.4	7.2	7.1	7.2	7.2
United Kingdom	11.7	12.0	11.7	11.4	11.5	11.4	11.1	10.6
Japan	5.0	4.9	4.8	4.8	4.7	4.7	4.6	4.5
New Zealand	8.3	8.9	9.3	9.0	9.1	8.9	9.0	9.0
Russian Federation	48.9	43.3	39.7	35.8	31.5	28.5	27.5	27.3
South Africa	12.5	12.6	13.3	14.1	13.7	13.6	13.5	13.7
Ukraine	21.6	19.6	17.6	15.3	12.8	11.7	10.6	9.9
United States	101.0	102.8	103.5	101.7	99.7	99.1	98.2	97.3
Uruguay	10.5	10.5	10.5	10.7	10.3	10.5	10.8	10.8
World	1 310.8	1 332.5	1 338.4	1 332.5	1 331.4	1 332.3	1 346.4	1 351.8

<sup>a</sup> As close as possible to 1 January. <sup>b</sup> Includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$5 000 or more. <sup>c</sup> Excludes Hong Kong. <sup>d</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; FAO, *FAOSTAT Agriculture Database*, Rome; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry*, Wellington; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*; Foreign Agricultural Service Circular, Washington DC.

# 163

World beef and veal production, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	2 600	2 600	2 580	2 975	2 600	2 840	2 880	2 625
Australia	1 845	1 719	1 734	1 939	1 987	1 991	2 025	2 072
Brazil	4 550	4 750	4 960	6 050	6 140	6 270	6 520	6 895
Canada	903	928	998	1 075	1 150	1 238	1 246	1 235
China <sup>b</sup>	3 270	4 154	3 557	4 409	4 799	5 054	5 328	5 600
Colombia	566	604	650	680	671	651	662	681
European Union <sup>c</sup>	7 400	7 767	7 722	7 696	7 432	7 493	7 462	7 044
France	1 588	1 648	1 685	1 677	1 632	1 609	1 514	1 571
Germany	1 447	1 407	1 483	1 448	1 367	1 374	1 310	1 360
Italy	1 170	1 181	1 180	1 159	1 110	1 164	1 130	1 133
United Kingdom	918	976	712	694	697	678	708	652
Japan	602	601	555	530	530	537	530	465
Mexico	1 810	1 850	1 800	1 795	1 800	1 900	1 900	1 925
New Zealand	538	630	631	646	620	562	548	571
Russian Federation	3 240	2 734	2 570	2 326	2 090	1 900	1 840	1 770
South Africa	581	542	525	591	539	584	630	635
United States	11 194	11 585	11 749	11 714	11 804	12 124	12 298	11 890
Uruguay	368	344	410	468	450	458	453	453
World	47 283	54 083	54 619	55 309	55 158	56 234	56 517	56 647

<sup>a</sup> Carcass weight equivalent. <sup>b</sup> Excludes Hong Kong. <sup>c</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Sources: ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; FAO, *FAOSTAT Agriculture Database*, Rome; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry*, Wellington; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC.

## Meat – beef and veal

### 164 Trade in beef and veal, by selected countries <sup>a</sup>

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports</b>									
Argentina	280	376	520	470	458	303	359	357	163
Australia	1 169	1 164	1 106	1 028	1 189	1 278	1 272	1 329	1 407
Canada	191	220	219	286	382	428	492	523	574
China <sup>b</sup>	155	74	95	79	101	88	55	53	60
European Union <sup>c</sup>	1 035	1 027	934	911	900	676	852	645	532
India	120	110	190	204	215	245	257	300	375
New Zealand	448	466	504	515	509	488	442	485	495
United States	578	731	826	851	969	985	1 096	1 141	1 029
Uruguay	105	152	143	210	251	182	149	189	144
<b>Total</b>	<b>4 081</b>	<b>4 320</b>	<b>4 537</b>	<b>4 554</b>	<b>4 974</b>	<b>4 673</b>	<b>4 974</b>	<b>5 022</b>	<b>4 779</b>
<b>Imports</b>									
Brazil	48	88	124	144	145	102	52	69	43
Canada	270	286	256	237	382	428	492	523	574
Chinese Taipei	57	62	66	59	85	82	94	83	80
Egypt	180	153	120	110	140	158	215	188	75
European Union <sup>c</sup>	401	406	371	363	380	324	349	448	410
Japan	731	842	927	899	924	951	967	1 027	947
Korea, Rep. of	132	165	194	191	226	125	242	324	246
Russian Federation	407	541	612	600	1 062	684	838	477	675
United States	1 089	1 075	954	940	1 063	1 199	1 304	1 375	1 435
<b>Total</b>	<b>3 315</b>	<b>3 618</b>	<b>3 624</b>	<b>3 543</b>	<b>4 407</b>	<b>4 053</b>	<b>4 553</b>	<b>4 514</b>	<b>4 485</b>

<sup>a</sup> Carcass weight. <sup>b</sup> Excludes Hong Kong. <sup>c</sup> Excludes intra-EU trade. Regarded as twelve countries for all years to 1 January 1995, then fifteen countries.

Sources: US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra.

# 165

## Summary of Japanese beef and veal statistics

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Cattle numbers a</b>									
Beef b	'000	2 971	2 965	2 901	2 851	2 848	2 842	2 823	2 806
Dairy c	'000	2 018	1 951	1 927	1 899	1 860	1 816	1 764	1 725
Total	'000	4 989	4 916	4 828	4 750	4 708	4 658	4 587	4 531
<b>Cattle slaughtering</b>									
Wagyu	'000	624.7	633.0	596.9	603.3	596.2	588.6	576.8	496.6
Dairy	'000	865.2	835.3	765.3	707.9	692.6	708.1	705.4	591.7
Calves	'000	15.5	11.4	8.4	6.9	10.5	9.7	6.4	5.4
Total	'000	1 505.4	1 479.6	1 370.6	1 318.1	1 299.3	1 306.4	1 288.6	1 093.6
<b>Production d</b>									
Wagyu beef	kt	245.1	249.6	238.0	242.0	241.3	240.0	236.2	205.8
Dairy beef	kt	343.6	340.0	308.6	280.1	278.6	289.6	288.1	246.6
Veal	kt	1.0	0.8	0.6	0.6	0.9	0.9	0.6	0.6
Total	kt	589.7	590.4	547.3	522.7	520.7	530.5	524.9	453.0
<b>Imports</b>									
<b>Fresh, chilled and frozen beef and veal e</b>									
Australia	kt	312.9	315.4	285.7	305.4	320.8	314.7	330.4	324.1
New Zealand	kt	20.9	27.0	27.1	22.9	19.0	13.9	13.8	16.5
United States	kt	250.4	298.5	308.3	306.3	320.2	327.6	348.3	311.1
Other	kt	4.4	7.9	8.6	12.7	6.3	21.2	26.8	22.6
Total	kt	588.6	648.8	629.6	647.3	666.4	677.4	719.4	674.3
<b>Offals e</b>									
Australia	kt	11.1	13.9	11.9	11.6	12.3	11.8	12.5	12.3
New Zealand	kt	1.7	2.4	2.5	1.8	2.5	2.5	3.1	3.1
United States	kt	90.6	99.6	94.1	86.5	87.1	87.5	93.1	84.2
Other	kt	3.0	4.1	4.6	4.4	6.0	6.2	8.4	5.7
Total	kt	106.4	119.9	113.1	104.3	108.0	107.9	117.1	105.3
<b>Prices</b>									
Wagyu steer f	¥/kg	1 691	1 624	1 643	1 790	1 785	1 701	1 675	1 568
Dairy steer g	¥/kg	778	738	831	890	736	700	843	696

a At 1 February. b Includes dairy steers. c Cows only. d Carcass weight. e Product weight. f Prices for an average of A3–A4 type steers at Tokyo Central Wholesale Meat Market. g Prices for an average of B2–B3 type steers at Tokyo Central Wholesale Meat Market.

Sources: Japan Tariff Association, *Japan Exports and Imports, Commodity by Country*, Tokyo; Japanese Ministry of Agriculture, Forestry and Fisheries, *Meat Statistics in Japan*, Tokyo; Agriculture and Livestock Industries Corporation, *Monthly Statistics*, Tokyo.

## Meat – beef and veal

# 166 Summary of Korean beef and veal statistics

	Native cattle numbers <sup>a</sup> '000	Production <sup>b</sup> kt	Imports		Consumption <sup>b</sup> kt	Average prices		
			Live cattle '000	Beef and veal <sup>b</sup> kt		Farm <sup>c</sup> won/kg	Wholesale <sup>d</sup> won/kg	Retail <sup>e</sup> won/kg
1970	1 284	na	na	na	37.3	na	na	658
1971	1 247	na	na	na	39.5	na	na	883
1972	1 333	na	na	0.3	40.2	na	na	1 013
1973	1 486	na	na	0.1	44.9	na	na	1 097
1974	1 778	na	na	0.0	51.5	na	na	1 315
1975	1 546	70.2	0.0	0.0	70.3	na	1 127	1 487
1976	1 451	74.8	0.0	1.0	75.5	na	1 707	2 123
1977	1 492	77.4	0.6	6.6	81.6	1 307	2 371	2 758
1978	1 624	74.3	10.6	2.2	114.7	1 712	2 729	3 460
1979	1 563	86.5	8.1	6.2	113.8	1 671	2 818	3 858
1980	1 390	93.3	0.2	10.6	100.0	1 963	3 577	4 820
1981	1 283	69.2	17.7	3.7	93.2	2 903	4 834	6 464
1982	1 526	61.4	39.8	4.5	106.5	3 539	5 437	7 432
1983	1 940	71.9	67.7	1.0	115.5	3 801	5 927	8 236
1984	2 318	90.8	18.2	1.8	106.6	3 577	5 723	8 316
1985	2 533	116.8	0.0	8.3	120.3	2 763	4 384	7 054
1986	2 370	150.8	0.0	3.6	147.9	2 487	3 875	6 234
1987	1 923	149.2	0.0	0.0	151.9	2 536	3 904	6 396
1988	1 589	126.6	0.0	14.2	141.5	3 511	5 500	8 276
1989	1 536	90.1	0.0	57.1	143.3	4 335	6 243	10 426
1990	1 622	94.9	0.0	81.9	177.0	4 811	6 629	11 450
1991	1 773	98.5	0.0	129.0	223.3	5 480	7 328	12 884
1992	2 019	99.6	0.0	127.3	226.9	6 007	7 634	14 170
1993	2 260	129.6	0.0	103.4	233.0	5 385	6 811	14 790
1994	2 393	147.3	0.0	122.5	269.8	5 835	7 244	15 438
1995	2 594	154.7	0.0	148.5	301.2	6 346	7 914	16 186
1996	2 844	173.7	0.0	149.2	322.9	5 696	6 971	16 236
1997	2 735	227.7	0.0	134.2	362.0	4 852	5 618	15 074
1998	2 922	260.1	0.0	85.4	345.5	4 014	5 438	13 822
1999	2 486	239.7	0.0	152.9	392.7	4 976	7 028	14 470
2000	2 134	278.0	0.0	237.9	402.3	5 504	7 414	17 418
2001	1 954	220.0	0.0	180.7	383.8	6 490	na	na

<sup>a</sup> At 31 December. <sup>b</sup> Boneless weight. <sup>c</sup> Korean native cattle, 400 kilograms. From 1995, 500 kilograms, male. <sup>d</sup> Beef (carcass). <sup>e</sup> Beef (boneless), all cities. **na** Not available.

Source: Republic of Korea National Livestock Co-operatives Federation, *Materials on Price, Demand and Supply of Livestock Products*, Seoul.

# 167 Australian supply and use of pig and poultry meats

	Unit	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Pig meat</b>										
Pig numbers <b>a</b>	'000	2 673	2 775	2 653	2 526	2 555	2 768	2 626	2 511	2 748
Breeding sows and gilts <b>a</b>	'000	315	323	293	293	303	320	309	293	308
Slaughterings	'000	5 260	5 365	5 191	4 840	4 899	5 212	5 037	5 014	5 172
Average slaughter weight <b>b</b>	kg	65.5	67.2	69.5	69.3	70.3	70.8	71.9	72.7	73.2
Production <b>b</b>	kt	344.6	360.8	361.0	335.4	344.2	369.0	362.2	364.4	378.5
Imports <b>bc</b>	kt	7.0	5.3	9.7	14.2	22.6	19.6	48.7	72.0	34.4
Exports <b>bc</b>	kt	11.2	9.0	9.5	11.7	16.5	25.1	45.1	55.5	77.0
Total consumption <b>bd</b>	kt	336.8	359.5	358.3	342.5	348.3	354.3	372.5	379.3	352.0
Consumption per person <b>bc</b>	kg	18.4	19.4	19.6	18.9	18.9	18.8	18.7	19.8	18.1
Closing stocks – pork <b>b</b>	kt	6.0	3.6	6.4	1.8	3.7	3.4	3.0	3.0	3.0
<b>Poultry meat <b>e</b></b>										
Slaughterings	million	315.5	335.4	332.1	341.8	356.9	372.8	382.1	401.6	397.2
Average dressed weight <b>b</b>	kg	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7
Production <b>b</b>	kt	482.7	503.7	504.2	525.2	557.4	602.1	613.8	657.5	662.0
Exports <b>b</b>	kt	13.1	14.2	17.6	18.4	17.8	22.9	24.0	23.7	30.6
Total consumption <b>d</b>	kt	469.6	489.5	486.6	506.8	539.6	579.2	589.8	633.9	631.4
Consumption per person	kg	26.5	27.4	26.9	27.7	29.4	30.8	31.3	32.9	32.6

**a** Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$5 000. **b** Carcass weight. **c** Includes preserved pig meat. **d** Apparent consumption. **e** Includes chicken, turkey and duck.

Sources: ABS, *Apparent Consumption of Foodstuffs*, cat. no. 4306.0, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.

## Meat – pig and poultry

### 168 Australian pig numbers, by state and territory <sup>a</sup>

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
	'000	'000	'000	'000	'000	'000	'000	'000	'000
1988	868	442	645	312	445	51	3	na	2 766
1989	865	429	628	287	456	46	3	na	2 713
1990	876	435	616	275	443	43	3	na	2 690
1991	831	409	613	273	405	39	3	na	2 573
1992	805	457	568	320	424	45	3	na	2 621
1993	823	434	622	307	438	45	3	na	2 673
1994	834	460	677	312	440	46	3	na	2 775
1995	791	439	644	316	423	38	3	na	2 653
1996	710	458	603	314	412	26	0	na	2 526
1997	729	485	600	297	417	24	2	na	2 555
1998	849	518	648	303	424	24	2	na	2 768
1999	778	521	621	277	406	22	2	na	2 626
2000	710	523	544	276	438	18	2	na	2 511
2001	845	557	597	286	438	22	2	na	2 748
2002	817	658	617	358	409	19	3	na	2 881

<sup>a</sup> At 31 March. From 2000, at 30 June. Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$5 000 or more. na Not available.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra.

### 169 World pig and poultry meat production in selected countries <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Pig meat</b>								
Australia	361	361	335	344	369	362	364	379
Canada	1 229	1 276	1 228	1 257	1 392	1 566	1 638	1 800
China <sup>b</sup>	32 048	36 484	31 580	35 963	39 898	41 048	41 371	42 787
Chinese Taipei	1 204	1 233	1 269	1 030	892	822	921	910
Denmark	1 565	1 457	1 457	1 534	1 629	1 642	1 625	1 705
France	2 126	2 145	2 135	2 220	2 328	2 353	2 312	2 254
Germany	3 604	3 604	3 635	3 562	3 834	4 102	3 981	4 070
Netherlands	1 673	1 623	1 625	1 375	1 725	1 711	1 623	1 575
Russian Federation	2 103	1 865	1 700	1 570	1 505	1 485	1 603	1 620
United States	8 027	8 096	7 764	7 835	8 623	8 758	8 597	8 690
<b>Poultry meat</b>								
Australia	504	504	525	557	602	614	658	662
Brazil	3 491	4 140	4 144	4 562	4 627	5 646	6 125	6 395
Canada	854	861	893	916	971	1 014	1 062	1 092
China <sup>b</sup>	7 550	8 440	9 630	10 400	11 349	11 943	12 865	13 287
France	1 961	2 083	2 206	2 259	2 293	2 188	2 203	2 077
Italy	1 084	1 123	1 151	1 177	1 154	1 177	1 140	1 156
Japan	1 258	1 282	1 249	1 234	1 222	1 211	1 195	1 180
Russian Federation	1 068	859	705	630	681	737	771	778
Thailand	740	825	890	955	1 190	1 190	1 221	1 367
United States	13 206	13 786	14 522	14 952	15 128	15 990	16 362	16 476

<sup>a</sup> Carcass weight equivalent. <sup>b</sup> Excludes Hong Kong.

Sources: ABS, *Livestock Products, Australia*, cat.no. 7215.0, Canberra; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington, DC.

## Meat – pig and poultry

### 170 World pig meat trade for selected countries <sup>a</sup>

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports <sup>b</sup></b>									
Australia	11	9	9	12	17	25	45	55	77
Canada	303	301	357	372	416	432	554	658	727
China <sup>c</sup>	150	181	230	192	158	143	75	73	139
Chinese Taipei	283	331	381	388	70	116	0	0	0
European Union	583	866	708	699	972	1 002	1 390	1 470	1 235
United States	197	249	357	440	474	558	580	584	708
<b>Imports <sup>b</sup></b>									
Australia	7	5	10	14	23	20	49	72	34
Hong Kong, China	208	224	160	145	188	253	260	297	318
Japan	653	705	829	933	786	777	919	995	1 068
European Union	42	34	32	47	61	40	54	54	55
United States	336	337	301	280	287	320	375	439	431

<sup>a</sup> Carcass weight equivalent. <sup>b</sup> Excludes intra-EU trade. <sup>c</sup> Excludes Hong Kong.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC.



## Meat – sheep

### 171 Australian supply and use of mutton and lamb

	Slaughterings '000	Average weight a kg	Production a kt	Exports ab kt	Consumption ac kt
<b>Mutton</b>					
1980	14 590	19.6	286.4	229.8	67.9
1981	12 726	19.4	246.4	188.4	51.0
1982	14 016	19.6	274.2	205.5	54.7
1983	9 719	19.1	186.0	144.8	66.8
1984	9 306	20.4	189.6	97.1	93.7
1985	11 742	20.1	236.4	125.6	110.4
1986	14 223	19.7	280.1	168.6	112.1
1987	15 314	19.7	302.4	164.6	131.7
1988	13 130	19.9	261.3	155.9	108.9
1989	13 698	20.6	282.6	152.1	129.1
1990	17 254	20.7	358.0	214.7	120.7
1991	18 750	21.0	394.6	265.2	143.8
1992	18 186	20.7	376.6	251.4	124.7
1993	18 047	21.5	387.9	234.4	149.4
1994	17 991	20.9	375.3	242.3	154.2
1995	15 228	20.5	312.1	208.6	101.4
1996	14 447	21.1	304.1	198.4	108.6
1997	15 552	20.5	319.6	209.2	113.1
1998	15 316	20.6	316.2	208.9	107.4
1999	14 723	21.0	309.8	210.5	99.4
2000	16 379	21.1	345.7	235.4	110.3
2001	15 825	20.6	326.2	226.4	99.8
<b>Lamb</b>					
1980	15 736	16.6	260.6	43.1	222.3
1981	16 179	16.8	272.5	38.5	234.4
1982	17 127	16.9	290.3	34.3	257.2
1983	16 804	16.9	283.7	33.5	251.2
1984	16 542	17.2	284.6	29.7	253.6
1985	18 759	17.1	319.9	42.9	277.2
1986	18 356	16.6	304.8	53.2	251.7
1987	17 516	16.9	296.8	53.3	244.6
1988	16 675	17.4	289.9	47.2	244.1
1989	16 864	17.8	299.6	41.5	257.4
1990	16 549	17.5	289.0	43.5	243.8
1991	15 818	17.3	274.3	42.0	232.7
1992	15 595	17.6	274.7	45.5	230.5
1993	14 668	17.6	258.7	56.2	200.5
1994	15 718	17.9	281.3	64.5	220.1
1995	14 680	17.9	263.0	55.1	207.7
1996	14 069	18.5	260.8	62.6	197.2
1997	14 924	18.8	279.9	78.3	201.6
1998	15 659	19.2	300.8	88.1	212.2
1999	16 346	19.5	318.8	101.1	217.0
2000	18 507	19.9	368.2	125.2	243.0
2001	17 923	19.7	353.1	124.9	228.2

a Carcass weight. b Includes canned and miscellaneous product. c Apparent consumption.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra; ABARE.

# 172 Australian sheep numbers, by state and territory <sup>a</sup>

	New South Wales million	Victoria million	Queensland million	South Australia million	Western Australia million	Tasmania million	Northern Territory million	Australian Capital Territory million	Australia million
<b>Breeding ewes</b>									
1990	27.679	12.658	6.702	8.402	15.378	2.120	0	0.059	72.996
1991	26.084	11.673	7.334	7.629	13.750	1.973	0	0.050	68.493
1992	25.036	10.890	6.792	7.669	14.480	1.833	0	0.047	66.747
1993	22.875	10.348	6.052	7.533	13.942	1.770	0	0.042	62.563
1994	21.909	10.097	5.421	7.193	14.401	1.717	0	0.040	60.779
1995	na	na	na	na	na	na	na	na	58.916
1996	20.195	9.789	4.556	6.817	14.164	1.631	0	0.029	57.182
1997	20.541	10.008	4.595	6.747	13.820	1.633	0	0.037	57.380
1998	19.372	9.706	4.549	6.760	13.714	1.563	0	0.034	55.701
1999	19.973	9.951	4.106	6.873	13.080	1.618	0	0.037	55.638
2000	na	na	na	na	na	na	na	na	na
2001	40.887	22.272	8.660	12.585	23.129	3.284	na	0.110	110.928
2002	38.038	21.367	8.469	12.187	22.145	3.057	na	8.914	na
<b>Lambs and hoggets</b>									
1990	14.956	6.647	3.614	4.362	9.594	1.506	0	0.024	40.706
1991	13.820	5.952	3.743	3.852	8.019	1.250	0	0.030	36.668
1992	10.728	4.996	2.015	3.341	6.201	0.975	na	0.015	28.271
1993	10.162	4.864	1.796	3.604	7.299	1.054	na	0.021	28.799
1994	10.836	5.131	1.631	3.507	7.514	1.099	na	0.020	29.739
1995	9.136	4.709	2.060	3.110	6.864	0.937	na	0.014	26.830
1996	10.134	4.836	2.134	3.541	7.757	0.994	na	0.014	29.410
1997	11.576	5.427	2.215	3.694	7.360	1.141	na	0.019	30.461
1998	10.755	4.683	2.393	3.660	7.419	1.032	na	0.014	29.957
1999	10.211	4.976	2.385	3.556	7.401	0.954	na	0.014	29.496
2000	na	na	na	na	na	na	na	na	na
2001	na	na	na	na	na	na	na	na	na
2002	na	na	na	na	na	na	na	na	na
<b>Total sheep and lambs</b>									
1990	62.947	30.643	17.015	18.748	38.674	5.618	0	0.130	173.377
1991	60.572	28.789	17.796	17.513	36.707	5.059	0	0.128	166.567
1992	54.231	26.081	15.338	16.445	34.289	4.499	na	0.112	150.995
1993	48.906	24.430	13.495	16.009	33.195	4.403	na	0.106	140.542
1994	46.531	23.439	11.548	14.679	31.951	4.324	na	0.097	132.569
1995	40.515	21.371	11.577	13.249	30.217	3.853	na	0.078	120.862
1996	41.091	21.974	10.706	13.575	29.834	3.862	na	0.073	121.116
1997	42.388	22.325	10.528	13.106	27.821	3.977	na	0.084	120.228
1998	40.821	21.122	10.992	13.136	27.476	3.869	na	0.076	117.491
1999	40.583	20.944	10.556	13.065	28.378	3.801	na	0.080	115.456
2000	42.361	22.119	8.974	13.428	25.481	3.261	na	0.078	118.600
2001	40.966	23.012	9.121	13.125	23.849	3.292	na	0.096	110.928
2002	na	na	na	na	na	na	na	na	103.000

<sup>a</sup> At 31 March. From 2000, as at 30 June. Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$5 000 or more. **na** Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.

## Meat – sheep

### 173 Australian exports of sheep meat and live sheep, by destination

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Mutton ab</b>									
Canada	kt	2.3	1.4	1.6	1.5	1.6	1.6	2.2	2.4
Chinese Taipei	kt	14.3	9.7	10.4	14.1	12.3	12.0	11.6	12.1
CIS	kt	1.1	1.6	0.9	3.6	5.2	0.6	1.7	1.7
European Union c	kt	8.9	11.1	11.1	10.4	10.7	7.8	8.1	7.3
Japan	kt	21.3	21.4	16.3	15.9	13.0	10.9	11.1	10.4
Korea, Rep. of	kt	2.6	3.4	2.3	2.0	1.4	1.4	1.0	1.0
Malaysia	kt	4.6	5.3	6.4	6.4	5.7	7.2	7.7	7.3
Papua New Guinea	kt	7.5	9.1	11.4	8.3	7.4	7.6	6.4	5.5
Saudi Arabia	kt	20.5	18.7	15.4	19.9	17.9	19.9	20.9	29.8
Singapore	kt	6.3	6.1	6.1	6.9	7.2	7.8	7.6	7.6
South Africa	kt	34.1	21.7	24.2	24.0	25.9	30.6	38.4	24.7
United States	kt	4.8	10.3	9.5	11.8	18.2	17.7	21.5	18.8
Other	kt	47.0	28.1	27.3	32.3	37.3	46.5	48.0	55.6
Total	kt	175.2	147.9	143.0	157.1	163.6	171.7	186.2	184.2
<b>Lamb a</b>									
European Union c	kt	6.9	5.3	6.3	8.1	9.1	11.3	13.4	13.2
Japan	kt	6.4	4.9	4.5	4.2	4.0	4.6	5.1	6.1
Papua New Guinea	kt	9.7	9.2	9.2	11.3	10.3	11.3	14.8	11.9
South Africa	kt	4.3	3.4	4.3	6.6	7.1	7.2	11.1	3.6
United Arab Emirates	kt	7.1	5.9	5.0	4.3	5.7	6.1	7.2	7.2
United States	kt	9.5	9.2	11.4	14.2	15.8	15.8	20.9	28.4
Other	kt	15.1	13.2	15.2	18.7	25.2	29.1	41.4	43.2
Total	kt	59.1	51.2	55.8	67.5	77.1	85.4	113.9	113.6
<b>Live sheep</b>									
Slaughter sheep	'000	5 528	5 895	5 642	4 995	4 895	4 960	5 321	6 699
Middle East	'000	5 481	5 796	5 402	4 913	4 858	4 892	5 282	6 596
Bahrain	'000	388	345	330	381	374	465	405	388
Egypt	'000	30	93	44	55	38	164	349	271
Jordan	'000	705	1 472	1 247	657	837	1 068	713	542
Kuwait	'000	1 318	1 146	1 096	1 037	1 434	1 250	1 473	1 540
Oman	'000	812	528	559	654	476	424	531	481
Qatar	'000	383	401	309	362	362	281	308	308
Saudi Arabia	'000	0	75	34	0	0	0	641	2 141
United Arab Emirates	'000	1 611	1 638	1 751	1 705	1 279	976	817	682
Other	'000	235	172	64	62	58	264	687	2 383
Singapore	'000	25	33	31	13	18	18	17	13
Other	'000	22	67	209	69	20	51	22	90
Breeding sheep	'000	6	1	1	169	85	65	100	112
Total	'000	5 534	5 896	5 643	5 163	4 980	5 026	5 421	6 812

a Shipped weight. b Includes young sheep and hoggets. c Regarded as twelve countries for all years to 1 January 1995, then fifteen countries.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 174 Value of Australian exports of sheep meat and live sheep (fob)

	1994	1995	1996	1997	1998	1999	2000	2001
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Mutton a</b>								
Canada	3.6	2.3	2.9	3.0	3.2	3.1	4.6	6.8
Chinese Taipei	30.5	19.6	22.8	34.7	29.1	27.6	26.3	36.9
CIS	1.1	2.0	1.5	5.7	9.2	0.9	3.1	3.7
European Union c	33.1	40.8	47.3	43.2	44.2	27.8	33.5	41.4
Japan	49.3	60.6	44.2	45.1	37.9	32.6	34.0	42.7
Korea, Rep. of	4.2	5.7	3.6	3.3	2.3	2.1	1.7	2.3
Malaysia	7.4	9.4	12.1	14.1	11.6	13.7	16.5	21.7
Papua New Guinea	7.2	9.4	11.7	8.9	8.0	7.5	6.2	7.4
Saudi Arabia	40.5	40.5	31.3	47.7	37.4	36.8	43.9	90.1
Singapore	12.2	13.4	13.1	16.6	16.4	16.5	18.4	23.4
South Africa	51.0	33.9	35.4	34.4	34.6	35.3	46.3	30.9
United States	9.2	16.7	16.9	24.3	40.3	37.1	43.9	56.4
Other	77.3	55.0	53.1	71.8	78.4	84.6	97.8	146.8
Total	326.6	309.4	295.8	352.7	352.5	325.8	376.3	510.6
<b>Lamb</b>								
European Union b	31.6	24.9	31.3	44.4	44.8	49.4	69.8	99.9
Japan	28.3	25.7	23.6	22.5	22.9	25.1	30.7	37.0
Papua New Guinea	9.5	10.2	12.4	14.0	12.0	13.0	16.0	18.0
South Africa	8.0	6.3	7.3	11.6	9.7	10.0	15.3	5.5
United Arab Emirates	18.4	16.7	14.3	13.8	18.1	18.2	24.2	27.4
United States	36.3	42.8	61.7	83.2	97.6	103.2	150.2	219.9
Other	57.7	52.2	60.8	75.9	90.6	99.1	141.6	171.5
Total	189.8	178.8	211.5	265.5	295.6	318.0	447.7	579.1
<b>Live sheep c</b>								
Middle East	160	215	198	184	187	177	204	349
Bahrain	10	12	12	13	13	15	13	20
Egypt	1	4	2	2	1	6	12	14
Jordan	23	57	44	25	32	35	24	28
Kuwait	36	41	40	39	53	47	61	79
Oman	24	20	21	25	18	17	20	26
Qatar	12	15	12	15	17	13	15	16
Saudi Arabia	0	3	1	0	0	0	27	120
United Arab Emirates	48	60	65	63	49	35	29	34
Other	2	4	9	3	2	3	2	5
Total	161	220	207	187	189	180	206	355

a Includes young sheep and hoggets. b Regarded as twelve countries for all years to 1 January 1995, then fifteen countries. c Excludes animals for breeding.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Meat – sheep

### 175 World sheep numbers, by country <sup>a</sup>

	1992	1993	1994	1995	1996	1997	1998	1999	2000
	million	million	million	million	million	million	million	million	million
Argentina	25.7	24.5	23.5	21.6	18.0	17.3	13.7	13.6	13.5
Australia	151.0	140.5	132.6	120.9	121.1	120.2	117.5	115.5	118.6
China <sup>b</sup>	110.9	109.7	111.7	117.4	127.6	114.1	121.0	127.4	131.1
France	10.6	10.4	11.5	10.3	10.6	10.5	10.3	10.2	10.0
Greece	8.7	8.7	8.7	9.2	8.9	8.9	9.0	8.9	9.0
India	50.8	51.9	53.0	54.1	55.3	56.5	57.1	57.6	57.9
Iran	46.0	49.7	50.3	50.9	51.5	52.1	53.2	53.9	53.5
Iraq	5.6	5.4	5.2	5.1	5.3	6.6	6.7	6.8	6.8
Italy	10.4	10.3	10.5	10.7	10.7	10.9	11.0	10.9	11.0
Morocco	13.2	11.9	13.3	13.4	14.5	15.3	14.8	16.6	17.3
New Zealand	52.6	50.3	49.5	48.8	48.8	47.0	46.0	45.7	45.4
Romania	13.9	12.1	11.5	10.9	10.4	9.7	8.9	8.4	8.1
Russian Federation	52.2	48.2	40.6	31.8	25.3	20.3	16.5	13.4	14.0
South Africa	31.0	28.9	29.1	28.8	28.9	29.2	29.3	28.7	28.6
Spain	24.6	23.9	23.1	23.0	21.3	24.0	24.9	24.2	24.0
Turkey	40.4	39.4	37.5	35.6	33.8	33.1	30.2	29.4	29.4
United Kingdom	29.5	29.3	29.7	29.0	28.2	30.0	31.1	29.7	19.2
United States	10.8	10.9	9.7	8.9	8.5	8.0	7.8	7.2	7.0
Uruguay	25.0	24.0	22.1	20.2	19.7	18.2	16.5	14.4	13.0
Total	1 135.4	1 106.8	1 092.7	1 090.9	1 072.6	1 056.5	1 052.8	1 052.8	1 057.8

<sup>a</sup> Mostly at 1 December of year shown. Data for Australia are at 31 March. <sup>b</sup> Excludes Hong Kong.

Sources: ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; FAO, *FAOSTAT Agriculture Database*, Rome; US Department of Agriculture, Livestock and Poultry: *World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC.

# 176

## World mutton and lamb production, by country <sup>a</sup>

	1992	1993	1994	1995	1996	1997	1998	1999	2000
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	66	65	85	81	64	58	57	54	59
Australia	651	647	657	575	565	599	617	629	714
China <sup>b</sup>	650	714	780	900	1 000	1 200	2 350	2 517	2 744
France	147	147	140	139	146	141	144	138	140
Italy	82	77	75	73	74	72	73	73	69
New Zealand	588	514	552	562	540	524	547	519	540
Romania	93	85	75	69	66	59	60	54	57
Russian Federation	329	359	316	255	208	178	178	143	123
Spain	216	224	224	227	223	229	250	239	251
Ukraine	32	27	39	33	20	19	21	19	22
United Kingdom	398	399	391	401	382	321	351	361	392
United States	159	153	140	130	122	118	114	113	101
Uruguay	64	64	66	52	64	60	55	51	51
Total	7 107	7 184	6 600	7 273	7 113	7 131	10 683	11 107	11 437

<sup>a</sup> Carcass weight for calendar year. <sup>b</sup> Excludes Hong Kong.

Sources: ABS, *Livestock Products, Australia*, cat. no. 7215.0, Canberra; FAO, *FAOSTAT Agriculture Database*, Rome; US Department of Agriculture, *Livestock and Poultry, World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC; Meat New Zealand, *Annual Report*, Wellington.

## Meat – sheep

### 177 Trade in mutton and lamb, by selected countries <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports</b>								
Australia <sup>b</sup>								
Mutton	242	209	198	209	209	210	235	226
Lamb	64	55	63	78	88	101	125	125
New Zealand <sup>c</sup>								
Mutton	85	91	101	94	92	83	79	92
Lamb	308	328	354	336	334	325	354	357
<b>Imports</b>								
European Union								
France	21	22	23	28	29	32	33	na
Germany	34	36	40	41	41	43	44	na
United Kingdom	94	127	127	117	113	116	108	93
Saudi Arabia								
Mutton and lamb from								
Australia <sup>b</sup>	34	33	25	31	27	32	32	41
New Zealand <sup>c</sup>	26	15	22	22	21	22	23	17
United States <sup>d</sup>	22	29	33	38	51	51	51	66

<sup>a</sup> Carcass weight. <sup>b</sup> Includes canned and miscellaneous product. <sup>c</sup> For year ended 30 September. <sup>d</sup> Includes some goat meat. For year ended 30 September. **na** Not available.

Sources: Agriculture, Fisheries and Forestry – Australia, *Export Statistics*, Canberra; Meat New Zealand, *Annual Report*, Wellington; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade*, Foreign Agricultural Service Circular, Washington DC; US Department of Agriculture, *Livestock, Dairy and Poultry Outlook, Electronic Outlook Report from the Economic Research Service*, Washington DC.

# 178

## New Zealand sheep meat exports, by destination <sup>a</sup>

	1993-94 kt	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt
<b>Mutton</b>								
Canada	0.6	0.5	0.6	0.6	0.5	0.5	0.3	0.2
European Union <sup>b</sup>	28.4	25.1	33.5	32.5	30.1	27.3	27.5	30.9
Iran	0.0	2.8	4.9	0.0	0.1	0.0	0.0	0.0
Japan	2.9	4.0	3.8	4.0	4.0	2.4	2.0	2.5
Korea, Rep. of	9.7	8.1	7.2	4.2	3.3	3.2	1.7	0.0
Papua New Guinea	3.5	2.6	1.8	4.1	2.5	2.7	1.2	1.2
Russian Federation	2.1	7.9	2.3	0.4	0.8	0.0	0.0	0.0
United States	0.7	0.6	1.4	1.4	2.1	1.2	0.8	0.4
Other Middle East	3.8	2.7	0.0	0.0	0.0	0.0	0.0	0.0
Other	10.6	9.8	16.9	17.3	16.5	17.0	16.8	22.7
Total	62.3	64.2	72.4	64.5	59.7	54.4	50.4	58.0
<b>Lamb</b>								
Canada	7.4	7.6	5.5	6.5	4.9	6.6	6.7	9.0
Germany	19.1	18.8	26.7	23.0	25.8	23.2	23.0	26.3
Iran	0.0	11.7	14.8	0.0	0.0	0.0	0.0	0.0
Japan	10.1	8.9	11.7	11.9	12.5	9.4	7.9	8.5
Korea, Rep. of	1.9	1.9	1.4	1.0	1.0	0.7	0.6	0.5
Jordan	10.0	10.1	8.6	9.1	5.3	8.8	9.5	5.9
Papua New Guinea	22.4	18.7	15.6	15.1	16.5	8.8	12.6	9.8
Saudi Arabia	23.6	13.4	17.0	19.0	14.2	15.9	19.3	15.7
United Kingdom	69.2	86.9	84.7	82.1	75.3	68.1	70.6	65.1
United States	6.6	9.3	10.9	13.4	18.3	17.2	17.0	16.9
Other	103.8	95.3	101.1	109.0	108.2	112.5	129.4	141.0
Total	274.1	282.6	298.0	290.0	282.0	271.1	296.5	298.8

<sup>a</sup> For October–September year. Shipped weight. <sup>b</sup> Regarded as twelve countries for all years.  
Source: Meat New Zealand, *Annual Report*, Wellington.



## Oilseeds

### 179 Summary of Australian statistics for oilseeds <sup>a</sup>

	Area '000 ha	Yield t/ha	Production kt	Exports <sup>b</sup> kt	Domestic use <sup>c</sup> kt
1960-61	58	na	na	0	na
1961-62	43	0.70	30	0	30
1962-63	56	0.79	44	1	43
1963-64	74	0.80	59	6	53
1964-65	92	0.77	71	7	64
1965-66	58	0.76	44	0	44
1966-67	81	1.00	81	6	75
1967-68	93	0.63	59	9	50
1968-69	95	0.58	55	12	43
1969-70	161	0.96	155	6	149
1970-71	269	0.76	204	9	195
1971-72	528	0.70	371	103	268
1972-73	447	0.60	268	48	220
1973-74	306	0.84	258	17	241
1974-75	402	0.86	345	48	297
1975-76	292	0.83	243	82	161
1976-77	271	0.88	240	5	235
1977-78	444	0.94	416	8	408
1978-79	511	1.02	520	65	455
1979-80	497	0.97	484	141	343
1980-81	400	1.12	450	6	444
1981-82	411	1.24	509	26	483
1982-83	386	0.91	349	3	346
1983-84	529	1.04	549	20	529
1984-85	710	1.30	925	51	874
1985-86	686	1.27	872	183	689
1986-87	552	1.28	708	125	583
1987-88	633	1.35	856	91	765
1988-89	569	1.47	838	217	621
1989-90	458	1.67	763	172	591
1990-91	599	1.74	1 040	187	853
1991-92	638	1.78	1 136	231	905
1992-93	541	1.60	864	241	623
1993-94	708	1.49	1 055	287	769
1994-95	808	1.54	1 244	252	991
1995-96	878	1.92	1 684	523	1 161
1996-97	1 047	1.69	1 768	523	1 245
1997-98	1 307	1.53	2 002	908	1 094
1998-99	2 090	1.48	3 092	1 707	1 385
1999-00	2 625	1.45	3 810	2 445	1 365
2000-01	2 142	1.45	3 107	2 189	918
2001-02	1 934	1.54	2 984	1 920	1 064

<sup>a</sup> Oilseeds are comprised of canola, cottonseed, linola, linseed, peanuts, safflowerseed, soybeans and sunflowerseed. <sup>b</sup> Seed only. <sup>c</sup> Includes any imports of seed, stocks carried over to the next season, feed and seed use, and any processing, of which some may be exported. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; Australian Oilseeds Federation, *AOF Oilseeds*, Sydney; ABARE.

# 180 Australian oilseeds area, yield and production, by state and type

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
<b>Canola</b>								
<b>Area</b>								
1995-96	'000 ha	170.2	76.2	0.2	99.4	30.4	0.1	376.6
1996-97	'000 ha	173.0	92.0	0.3	106.5	36.0	0.0	407.8
1997-98	'000 ha	270.0	117.0	0.3	248.0	63.0	0.0	698.3
1998-99	'000 ha	372.0	205.0	1.0	536.0	132.0	1.0	1 247.0
1999-00	'000 ha	523.0	283.0	1.0	909.0	200.0	1.0	1 917.0
2000-01	'000 ha	523.0	261.0	3.0	517.0	154.0	0.0	1 459.0
2001-02	'000 ha	536.0	247.0	1.0	409.0	170.0	1.0	1 364.0
<b>Yield</b>								
1995-96	t/ha	1.6	1.6	0.4	1.2	1.6	1.4	1.5
1996-97	t/ha	1.9	1.4	0.0	1.0	1.5	0.0	1.5
1997-98	t/ha	1.3	1.2	0.0	1.1	1.4	0.0	1.2
1998-99	t/ha	1.7	1.3	1.0	1.1	1.5	1.0	1.4
1999-00	t/ha	1.5	1.4	1.0	1.1	1.2	1.0	1.3
2000-01	t/ha	1.6	1.5	0.3	0.7	1.3	0.0	1.2
2001-02	t/ha	1.3	1.4	1.0	1.1	2.4	1.0	1.3
<b>Production</b>								
1995-96	kt	272.3	119.6	0.1	116.9	48.1	0.2	557.1
1996-97	kt	331.0	132.0	0.0	107.9	52.9	0.0	623.8
1997-98	kt	362.0	136.0	0.0	270.0	88.0	0.0	856.0
1998-99	kt	623.0	257.0	1.0	615.0	193.0	1.0	1 690.0
1999-00	kt	800.0	397.0	1.0	989.0	238.0	1.0	2 426.0
2000-01	kt	836.0	380.0	1.0	353.0	204.0	0.0	1 775.0
2001-02	kt	716.0	355.0	1.0	439.0	409.0	1.0	1 797.0
<b>Cottonseed</b>								
<b>Area</b>								
1995-96	'000 ha	185.5	0.0	118.4	0.0	0.0	0.0	321.0
1996-97	'000 ha	277.0	0.0	119.1	0.0	0.0	0.0	396.1
1997-98	'000 ha	299.3	0.0	138.8	0.0	0.0	0.0	438.2
1998-99	'000 ha	381.7	0.0	179.9	0.0	0.0	0.0	561.5
1999-00	'000 ha	313.0	0.0	151.3	0.0	0.0	0.0	464.3
2000-01	'000 ha	325.3	0.0	185.5	0.0	0.0	0.0	510.7
2001-02	'000 ha	287.8	0.0	115.0	0.0	0.0	0.0	402.8
<b>Yield</b>								
1995-96	t/ha	3.4	0.0	2.6	0.0	0.0	0.0	2.9
1996-97	t/ha	2.3	0.0	2.0	0.0	0.0	0.0	2.2
1997-98	t/ha	2.2	1.0	1.9	1.0	1.0	1.0	2.1
1998-99	t/ha	1.8	1.0	1.9	1.0	1.0	1.0	1.8
1999-00	t/ha	2.2	1.0	2.3	1.0	1.0	1.0	2.3
2000-01	t/ha	2.3	1.0	2.0	1.0	1.0	1.0	2.2
2001-02	t/ha	2.5	1.0	2.3	1.0	1.0	1.0	2.4
<b>Production</b>								
1995-96	kt	630.0	0.0	303.0	0.0	0.0	0.0	933.0
1996-97	kt	627.5	0.0	232.6	0.0	0.0	0.0	860.1
1997-98	kt	672.3	0.0	269.0	0.0	0.0	0.0	941.3
1998-99	kt	671.1	0.0	341.0	0.0	0.0	0.0	1 012.1
1999-00	kt	696.9	0.0	350.4	0.0	0.0	0.0	1 047.3
2000-01	kt	748.1	0.0	375.4	0.0	0.0	0.0	1 123.6
2001-02	kt	720.6	0.0	259.3	0.0	0.0	0.0	979.8

Continued

## Oilseeds

### 180 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
<b>Linseed</b>								
<b>Area</b>								
1995-96	'000 ha	2.0	7.0	1.0	2.0	1.6	0.0	13.6
1996-97	'000 ha	2.4	3.0	1.2	1.0	0.2	0.0	7.8
1997-98	'000 ha	2.5	3.2	1.3	1.1	0.7	0.0	8.6
1998-99	'000 ha	2.8	3.5	1.4	1.2	0.3	0.0	9.1
1999-00	'000 ha	3.0	3.8	1.5	1.3	0.5	0.0	10.1
2000-01	'000 ha	3.0	4.0	1.5	1.3	0.4	0.0	10.2
2001-02	'000 ha	3.0	4.0	1.5	1.3	0.4	0.0	10.2
<b>Yield</b>								
1995-96	t/ha	1.0	1.1	0.4	1.2	0.0	0.0	0.9
1996-97	t/ha	0.8	1.0	0.7	0.7	1.5	0.0	0.9
1997-98	t/ha	0.6	0.8	0.4	0.8	0.9	0.0	0.7
1998-99	t/ha	0.9	1.1	0.8	1.1	1.2	0.0	1.0
1999-00	t/ha	0.9	1.1	0.8	1.1	1.4	0.0	1.0
2000-01	t/ha	0.8	1.0	0.7	0.9	1.2	0.0	0.9
2001-02	t/ha	0.8	1.0	0.7	1.0	1.2	0.0	0.9
<b>Production</b>								
1995-96	kt	2.0	8.0	0.4	2.3	0.0	0.0	12.7
1996-97	kt	1.9	3.0	0.8	0.7	0.4	0.0	6.8
1997-98	kt	1.6	2.5	0.6	0.8	0.6	0.0	6.0
1998-99	kt	2.4	3.8	1.1	1.2	0.4	0.0	8.8
1999-00	kt	2.7	4.2	1.2	1.4	0.6	0.0	10.1
2000-01	kt	2.5	4.0	1.0	1.2	0.5	0.0	9.2
2001-02	kt	2.4	4.0	1.0	1.3	0.5	0.0	9.1
<b>Peanuts</b>								
<b>Area</b>								
1995-96	'000 ha	0.8	0.0	19.8	0.0	0.0	0.0	20.7
1996-97	'000 ha	1.0	0.0	21.0	0.1	0.0	0.0	22.1
1997-98	'000 ha	1.0	0.0	21.3	0.1	0.0	0.0	22.4
1998-99	'000 ha	0.4	0.0	21.0	0.1	0.0	0.0	21.5
1999-00	'000 ha	0.5	0.0	23.0	0.1	0.0	0.0	23.6
2000-01	'000 ha	0.5	0.0	21.0	0.1	0.0	0.0	21.6
2001-02	'000 ha	0.5	0.0	21.0	0.1	0.0	0.0	21.6
<b>Yield</b>								
1995-96	t/ha	1.1	0.0	1.9	0.0	0.0	0.0	1.9
1996-97	t/ha	1.1	0.0	1.8	1.7	0.0	0.0	1.7
1997-98	t/ha	1.1	0.0	1.8	1.6	0.0	0.0	1.8
1998-99	t/ha	1.1	0.0	1.8	1.6	0.0	0.0	1.8
1999-00	t/ha	1.6	0.0	1.9	1.6	0.0	0.0	1.8
2000-01	t/ha	1.2	0.0	1.6	1.6	0.0	0.0	1.6
2001-02	t/ha	1.3	0.0	1.7	1.6	0.0	0.0	1.7
<b>Production</b>								
1995-96	kt	0.8	0.0	37.6	0.0	0.0	0.0	38.5
1996-97	kt	1.1	0.0	37.2	0.2	0.0	0.0	38.5
1997-98	kt	1.1	0.0	38.0	0.2	0.0	0.0	39.3
1998-99	kt	0.5	0.0	38.0	0.2	0.0	0.0	38.6
1999-00	kt	0.8	0.0	42.6	0.2	0.0	0.0	43.5
2000-01	kt	0.6	0.0	34.3	0.2	0.0	0.0	35.1
2001-02	kt	0.6	0.0	34.8	0.2	0.0	0.0	36.6

*Continued*

# 180 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
<b>Safflowerseed</b>								
<b>Area</b>								
1995-96	'000 ha	10.3	25.1	0.0	0.0	4.7	0.0	40.1
1996-97	'000 ha	10.7	18.0	0.7	0.0	5.7	0.0	35.1
1997-98	'000 ha	7.0	5.2	0.3	0.0	2.8	0.0	15.3
1998-99	'000 ha	8.8	18.6	5.9	0.0	1.7	0.0	35.1
1999-00	'000 ha	8.7	18.9	6.3	0.0	2.7	0.0	36.7
2000-01	'000 ha	8.7	18.9	6.3	0.0	2.7	0.0	36.7
2001-02	'000 ha	8.7	18.9	6.3	0.0	2.7	0.0	36.7
<b>Yield</b>								
1995-96	t/ha	0.6	0.7	1.2	0.0	0.6	0.0	0.7
1996-97	t/ha	0.8	0.5	0.3	0.0	0.7	0.0	0.6
1997-98	t/ha	0.5	0.4	0.7	0.0	0.7	0.0	0.5
1998-99	t/ha	0.6	0.8	0.5	0.0	1.0	0.0	0.7
1999-00	t/ha	0.7	0.8	0.7	0.0	1.7	0.0	0.9
2000-01	t/ha	0.8	0.9	0.7	0.0	1.7	0.0	0.9
2001-02	t/ha	0.7	0.7	0.6	0.0	1.1	0.0	0.8
<b>Production</b>								
1995-96	kt	6.3	17.1	0.0	0.0	3.0	0.0	29.8
1996-97	kt	8.5	8.8	0.2	0.0	3.8	0.0	21.3
1997-98	kt	3.6	1.9	0.2	0.0	1.8	0.0	7.6
1998-99	kt	5.5	14.9	2.7	0.0	1.7	0.0	24.8
1999-00	kt	6.2	16.0	4.6	0.0	4.7	0.0	31.4
2000-01	kt	7.0	17.0	4.6	0.0	4.7	0.0	33.2
2001-02	kt	6.0	12.9	3.8	0.0	3.1	0.0	27.8
<b>Soybeans</b>								
<b>Area</b>								
1995-96	'000 ha	11.6	2.0	10.1	0.0	0.0	0.0	23.7
1996-97	'000 ha	21.5	1.8	15.5	0.0	0.0	0.0	38.8
1997-98	'000 ha	19.4	1.0	11.3	0.0	0.0	0.0	31.7
1998-99	'000 ha	35.0	1.5	11.5	0.0	0.0	0.0	48.0
1999-00	'000 ha	32.6	2.0	18.6	0.0	0.0	0.0	53.1
2000-01	'000 ha	23.0	1.0	10.0	0.0	0.0	0.0	34.0
2001-02	'000 ha	23.0	1.0	9.4	0.0	0.0	0.0	33.4
<b>Yield</b>								
1995-96	t/ha	1.8	2.0	1.8	0.0	0.0	0.0	1.8
1996-97	t/ha	2.1	2.2	1.6	0.0	0.0	0.0	1.9
1997-98	t/ha	1.9	2.3	1.4	0.0	0.0	0.0	1.7
1998-99	t/ha	2.3	2.0	2.2	0.0	0.0	0.0	2.3
1999-00	t/ha	1.9	2.0	2.1	0.0	0.0	0.0	2.0
2000-01	t/ha	1.9	2.1	1.6	0.0	0.0	0.0	1.8
2001-02	t/ha	2.2	2.0	2.0	1.0	1.0	0.0	2.1
<b>Production</b>								
1995-96	kt	21.3	4.0	18.6	0.0	0.0	0.0	43.9
1996-97	kt	46.1	4.0	24.4	0.0	0.0	0.0	74.4
1997-98	kt	36.2	2.4	15.5	0.0	0.0	0.0	54.0
1998-99	kt	80.5	3.0	25.3	0.0	0.0	0.0	108.8
1999-00	kt	61.8	4.0	39.0	0.0	0.0	0.0	104.8
2000-01	kt	44.0	2.1	15.5	0.0	0.0	0.0	61.6
2001-02	kt	50.0	2.0	19.0	0.0	0.0	0.0	70.4

*Continued*

## Oilseeds

# 180 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
<b>Sunflowerseed</b>								
<b>Area</b>								
1995-96	'000 ha	34.5	1.6	46.0	0.4	0.2	0.0	82.8
1996-97	'000 ha	41.3	1.4	95.8	0.1	0.3	0.0	138.8
1997-98	'000 ha	20.0	3.0	68.0	0.4	1.0	0.0	92.4
1998-99	'000 ha	78.0	3.0	85.0	0.4	1.1	0.0	167.5
1999-00	'000 ha	27.0	2.0	89.3	0.4	1.1	0.0	119.8
2000-01	'000 ha	21.8	0.0	47.7	0.0	0.0	0.0	69.5
2001-02	'000 ha	35.0	0.0	29.6	0.0	0.0	0.0	65.0
<b>Yield</b>								
1995-96	t/ha	1.1	1.3	0.6	1.3	0.6	0.0	0.8
1996-97	t/ha	1.1	1.2	1.0	1.0	0.8	0.0	1.0
1997-98	t/ha	1.3	1.7	1.0	2.5	1.0	0.0	1.1
1998-99	t/ha	1.3	1.8	1.2	2.4	1.0	0.0	1.2
1999-00	t/ha	1.4	1.6	1.2	0.9	0.9	0.0	1.2
2000-01	t/ha	1.1	0.0	1.0	0.0	0.0	0.0	1.0
2001-02	t/ha	1.0	0.0	1.0	0.0	0.0	0.0	1.0
<b>Production</b>								
1995-96	kt	38.7	2.2	27.4	0.5	0.1	0.0	68.9
1996-97	kt	46.2	1.7	95.2	0.1	0.3	0.0	143.4
1997-98	kt	25.0	5.0	66.0	1.0	1.0	0.0	98.0
1998-99	kt	101.4	5.3	100.3	1.0	1.0	0.0	209.0
1999-00	kt	37.0	3.1	105.4	0.4	1.0	0.0	146.9
2000-01	kt	24.1	0.0	45.6	0.0	0.0	0.0	69.7
2001-02	kt	35.0	0.0	29.6	0.0	0.0	0.0	63.0
<b>Total oilseeds</b>								
<b>Area</b>								
1995-96	'000 ha	414.8	112.8	195.6	101.8	36.8	0.0	878.4
1996-97	'000 ha	526.9	117.3	253.5	107.7	42.2	0.0	1 046.6
1997-98	'000 ha	619.3	130.4	241.4	249.6	67.4	0.0	1 307.0
1998-99	'000 ha	878.6	232.0	305.7	537.7	135.1	0.0	2 089.6
1999-00	'000 ha	907.9	310.2	291.0	910.8	204.3	0.0	2 624.6
2000-01	'000 ha	905.3	285.4	274.9	518.4	157.1	0.0	2 141.6
2001-02	'000 ha	894.0	271.4	183.8	410.4	173.1	0.0	1 933.7
<b>Yield</b>								
1995-96	t/ha	2.3	1.3	2.0	1.2	1.4	0.0	1.9
1996-97	t/ha	2.0	1.3	1.5	1.0	1.4	0.0	1.7
1997-98	t/ha	1.8	1.1	1.6	1.1	1.4	0.0	1.5
1998-99	t/ha	1.7	1.2	1.7	1.1	1.5	0.0	1.5
1999-00	t/ha	1.8	1.4	1.9	1.1	1.2	0.0	1.5
2000-01	t/ha	1.8	1.4	1.7	0.7	1.3	0.0	1.5
2001-02	t/ha	1.7	1.4	1.9	1.1	2.4	0.0	1.5
<b>Production</b>								
1995-96	kt	971.4	150.9	387.1	119.7	51.2	0.0	1 683.9
1996-97	kt	1 062.2	149.5	390.4	108.8	57.5	0.0	1 768.2
1997-98	kt	1 101.8	147.7	389.3	272.0	91.6	0.0	2 002.3
1998-99	kt	1 484.2	284.0	509.4	617.4	196.2	0.0	3 092.1
1999-00	kt	1 605.4	424.3	544.0	990.9	244.5	0.0	3 810.0
2000-01	kt	1 662.3	403.1	477.4	354.3	209.3	0.0	3 107.3
2001-02	kt	1 530.6	373.9	348.4	440.4	412.8	0.0	2 983.7

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE, *Australian Crop Report*, Canberra; ABARE.

# 181 Australian exports of oilseeds, vegetable oils and meals, by type

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Oilseeds</b>								
Canola	84.47	347.77	283.43	590.07	1 319.83	1 892.61	1 479.11	1 303.09
Cottonseed	131.52	157.42	211.48	296.06	359.94	530.75	657.79	593.64
Linseed	0.34	0.41	0.64	0.06	0.32	0.10	0.01	0.03
Peanuts	1.25	0.79	1.89	3.66	4.75	3.93	2.81	5.10
Safflowerseed	19.86	10.52	17.54	12.01	8.60	6.93	13.62	10.36
Soybeans	4.35	2.39	3.65	3.13	2.53	2.65	11.26	5.42
Sunflowerseed	10.50	3.52	4.44	3.15	11.02	7.65	24.81	1.98
Total <b>a</b>	252.29	522.81	523.07	908.14	1 706.99	2 444.63	2 189.43	1 919.62
(value, \$m)	94.84	194.27	190.41	344.80	672.31	789.46	708.84	740.09
<b>Oils</b>								
Canola	0.15	6.95	8.56	28.72	56.18	39.00	28.05	31.31
Cottonseed	0.11	0.18	0.74	18.32	1.35	0.31	0.64	2.49
Linseed	0.05	0.02	0.03	0.02	0.03	0.01	0.00	0.30
Palm	0.26	0.12	0.34	2.09	0.67	0.00	0.01	0.00
Peanut	0.33	0.13	0.63	0.44	0.67	0.09	0.16	0.59
Safflowerseed	1.14	0.51	1.05	1.60	1.45	0.37	0.07	0.13
Soybeans	0.75	0.07	0.02	0.12	2.06	0.29	3.15	2.21
Sunflowerseed	0.26	0.44	0.73	4.07	8.32	5.41	6.34	4.73
Olive	0.06	0.06	0.06	0.10	0.24	0.27	0.33	0.31
Total	11.24	14.28	14.03	59.94	72.97	47.83	41.82	49.55
(value, \$m)	16.50	16.96	15.83	64.92	76.60	40.76	39.93	53.54
<b>Oilseed meals</b>								
Canola	0.00	0.00	0.00	0.00	0.18	0.54	1.73	0.00
Cottonseed and sunflowerseed	0.26	4.08	54.10	9.29	30.08	46.83	59.71	31.92
Linseed	0.02	0.02	0.00	0.00	0.00	0.02	0.00	0.74
Soybeans	7.41	4.55	2.83	3.65	2.43	1.74	2.47	1.78
Other <b>b</b>	2.30	3.07	1.58	41.04	115.41	68.64	8.32	1.80
Total	9.99	11.73	58.52	53.98	148.10	117.77	72.22	36.24
(value, \$m)	4.82	5.06	11.04	12.96	422.58	220.23	559.89	10.07

**a** Excludes sesame seed and other oleaginous fruit. **b** Includes flour, meal of oilseeds, and oleaginous fruit. Excludes peanut meal.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

## Oilseeds

### 182 Australian exports of selected oilseeds products, by destination

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Oilseeds</b>								
<b>Canola</b>								
Bangladesh	19.87	123.24	78.21	94.64	126.33	99.36	148.22	151.75
China	0.00	0.00	0.00	132.66	393.79	1 212.02	294.81	335.77
Japan	63.77	222.16	204.65	230.33	293.19	369.96	375.94	395.43
Pakistan	0.00	0.00	0.20	20.89	42.83	56.21	224.32	306.66
Other	0.84	2.37	0.37	111.55	463.69	155.06	435.82	113.48
<b>Total a</b>	<b>84.47</b>	<b>347.77</b>	<b>283.43</b>	<b>590.07</b>	<b>1 319.83</b>	<b>1 892.61</b>	<b>1 479.11</b>	<b>1 303.09</b>
<b>Cottonseed</b>								
Chinese Taipei	0.21	0.63	1.08	0.58	3.50	3.35	2.45	1.47
Japan	126.33	135.00	166.20	177.08	175.34	175.98	152.57	164.48
Korea, Rep. Of	4.84	20.80	41.12	45.63	55.39	83.14	94.60	88.47
Saudi Arabia	0.00	0.00	0.00	0.00	0.30	2.27	17.00	8.50
United States	0.08	0.00	1.42	58.14	122.65	221.20	386.54	327.68
Other	0.07	1.00	1.66	14.63	2.77	44.82	4.64	3.05
<b>Total a</b>	<b>131.52</b>	<b>157.42</b>	<b>211.48</b>	<b>296.06</b>	<b>359.94</b>	<b>530.75</b>	<b>657.79</b>	<b>593.64</b>
<b>Canola oil</b>								
China	0.00	0.00	3.00	8.73	4.50	0.00	0.00	5.03
Japan	0.00	0.00	0.00	0.00	0.04	5.18	13.84	9.66
New Zealand	0.03	0.14	0.03	1.18	5.21	10.26	9.67	14.51
Other	0.12	6.81	5.53	18.82	46.43	23.56	4.54	2.11
<b>Total</b>	<b>0.15</b>	<b>6.95</b>	<b>8.56</b>	<b>28.72</b>	<b>56.18</b>	<b>39.00</b>	<b>28.05</b>	<b>31.31</b>
<b>Cottonseed and sunflowerseed meal</b>								
Korea, Rep. of	0.00	0.00	51.74	7.84	28.00	43.65	55.62	25.99
New Zealand	0.02	0.39	0.44	0.14	0.07	0.03	0.28	2.15
Other	0.23	3.69	1.93	1.31	2.00	3.14	3.81	3.77
<b>Total</b>	<b>0.26</b>	<b>4.08</b>	<b>54.10</b>	<b>9.29</b>	<b>30.08</b>	<b>46.83</b>	<b>59.71</b>	<b>31.92</b>

**a** Excludes sesame seed and other oleaginous fruit. **b** Includes flour, meal of oilseeds, and oleaginous fruit. Excludes peanut meal.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

# 183 Australian imports of oilseeds, vegetable oils and meals, by type

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Oilseeds</b>								
Canola	0.16	0.25	0.16	0.16	0.17	0.14	0.09	0.09
Copra	0.00	0.00	0.00	0.02	0.01	0.01	0.00	0.01
Linseed	0.24	0.06	1.02	3.33	0.40	0.14	1.23	1.04
Peanuts	4.89	14.22	4.12	3.84	5.68	3.70	7.41	5.77
Soybeans	104.58	69.15	54.05	47.59	23.32	18.13	0.09	0.31
Sunflowerseed	0.63	0.83	1.05	0.88	0.63	0.76	0.77	0.80
Other <b>a</b>	5.56	5.92	6.06	6.03	5.87	5.89	5.91	6.80
Total	116.06	90.44	66.47	61.84	36.08	28.78	15.50	14.81
(value, \$m)	51.10	51.23	37.47	39.21	28.84	22.54	23.44	20.80
<b>Oils</b>								
Canola	0.76	0.49	2.19	1.54	2.17	3.71	3.52	3.28
Cottonseed	0.02	0.03	0.02	0.11	0.18	0.23	0.42	0.64
Linseed	3.55	3.00	2.74	2.08	2.35	2.68	2.67	2.43
Maize	1.52	1.57	2.42	1.54	1.41	1.65	1.79	2.04
Peanut	0.62	1.22	0.19	0.11	0.36	0.53	1.11	0.35
Safflowerseed and sunflowerseed	15.68	12.36	33.36	14.37	9.53	8.69	12.58	16.64
Soybean	33.06	29.17	18.30	12.24	13.82	8.01	7.88	10.89
Castor	1.52	1.34	1.69	1.87	1.76	1.97	1.15	1.41
Coconut	16.45	16.67	17.86	17.02	16.39	13.40	14.36	12.18
Olive	18.84	15.89	17.69	20.00	22.97	22.53	30.75	24.69
Palm	7.48	6.44	6.96	7.30	7.81	6.60	7.36	8.35
Palm kernel	2.64	5.06	5.63	7.22	6.65	8.47	8.23	11.95
Palm olein	68.56	74.97	71.30	76.72	72.91	79.56	77.24	74.63
Palm stearin	19.48	22.78	23.51	27.99	19.59	25.84	23.40	29.54
Tung	0.23	0.18	0.26	15.40	16.23	33.64	15.20	0.19
Other <b>b</b>	32.11	29.36	22.89	36.68	32.30	33.21	40.63	31.18
Total oils	222.51	220.54	227.01	242.18	226.42	250.70	248.28	230.38
(value, \$m)	241.39	277.98	272.10	267.13	305.51	281.91	282.44	280.32
<b>Oilseed meals</b>								
Soybeans	309.06	152.28	183.42	159.78	176.90	211.86	204.71	258.76
Other <b>c</b>	32.11	29.36	22.89	36.68	32.30	33.21	40.63	31.18
Total	341.17	181.64	206.31	196.46	209.20	245.07	245.34	289.95
(value, \$m)	87.87	51.08	71.28	73.09	59.12	67.76	83.21	105.80

**a** Oilseeds, oleaginous fruit, used for extraction of vegetable oils, not elsewhere specified. **b** Includes fixed vegetable oils not elsewhere specified, including mixtures; boiled, oxidised and dehydrated vegetable oils not elsewhere specified; vegetable oils and fats not elsewhere specified. **c** Includes flours.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.



# 184

## Summary of world statistics for oilseeds <sup>a</sup>

	Area	Production	Use <sup>b</sup>	Closing stocks		Stocks to use ratio	Exports	Use per person	Price <sup>d</sup>
				World	Exporters <sup>c</sup>				
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US\$/t
1970-71	70.2	77.1	78.6	na	3.4	na	18.2	27.2	117.0
1971-72	73.9	83.3	82.6	4.7	3.6	5.6	18.3	28.4	126.0
1970-71	70.2	77.1	78.6	na	3.4	na	18.2	27.2	117.0
1971-72	73.9	83.3	82.6	4.7	3.6	5.6	18.3	28.4	126.0
1972-73	102.7	109.4	107.6	4.7	3.3	4.4	20.4	28.5	140.0
1973-74	107.9	125.0	120.4	8.2	6.5	6.8	22.0	30.7	290.0
1974-75	107.1	118.2	117.4	9.5	7.6	8.1	19.7	29.3	277.0
1975-76	106.9	128.3	125.6	12.9	10.3	10.3	23.8	30.8	220.0
1976-77	104.8	118.7	124.9	7.1	5.8	5.7	23.6	30.1	231.0
1977-78	115.4	138.1	136.5	9.6	7.3	7.0	26.9	32.3	280.0
1978-79	120.4	145.3	145.5	10.5	8.1	7.2	30.1	33.8	268.0
1979-80	127.8	164.6	156.4	18.0	14.9	11.5	35.2	35.8	298.0
1980-81	125.4	150.7	155.5	14.8	12.2	9.5	30.7	35.0	296.0
1981-82	128.8	165.1	167.0	12.9	10.0	7.7	35.5	36.9	288.0
1982-83	130.2	173.8	171.3	15.0	11.8	8.7	34.6	37.2	245.0
1983-84	130.3	161.1	165.4	10.0	6.6	6.0	32.5	35.3	282.0
1984-85	138.1	186.8	181.7	15.6	11.9	8.6	32.0	38.1	282.0
1985-86	137.0	191.7	187.1	21.2	17.9	11.3	33.8	38.6	224.0
1986-87	133.7	189.8	193.8	18.4	14.8	9.5	36.8	39.3	208.0
1987-88	140.9	204.9	204.6	16.1	11.4	7.9	39.2	40.7	216.0
1988-89	150.6	199.5	202.4	13.9	9.6	6.8	31.8	39.6	292.3
1989-90	151.3	213.6	209.0	14.4	10.1	6.9	36.3	40.2	246.9
1990-91	150.6	213.6	214.0	16.0	11.9	7.5	32.6	40.5	241.4
1991-92	157.0	222.6	224.6	14.7	10.7	6.6	37.4	41.8	237.4
1992-93	156.4	226.4	226.9	14.6	11.0	6.5	38.3	41.6	246.2
1993-94	159.9	227.3	231.1	12.0	8.2	5.2	38.4	41.7	258.8
1994-95	168.1	261.1	257.1	16.4	12.2	6.4	44.2	45.7	247.6
1995-96	174.5	257.7	261.5	13.3	8.3	5.1	44.4	45.7	303.4
1996-97	170.7	261.4	262.8	12.5	6.4	4.8	49.5	45.3	296.8
1997-98	177.7	286.5	283.4	15.7	8.5	5.5	54.6	47.8	257.5
1998-99	185.5	294.7	293.0	19.5	12.8	6.6	55.1	49.7	207.0
1999-00	189.2	303.4	301.1	21.6	11.9	7.2	64.6	50.4	280.0
2000-01	189.0	313.1	315.1	20.0	9.5	6.3	71.5	51.5	295.0
2001-02	192.4	325.0	326.4	17.1	8.3	5.2	68.0	52.6	310.0

<sup>a</sup> October–September years, except where otherwise noted. Oilseeds comprise canola, copra, cottonseed, palm kernels, peanuts, soybeans and sunflowerseed. <sup>b</sup> Disappearance. <sup>c</sup> Stocks are indicative for the year in question. Soybeans: United States, Brazil, Argentina; cottonseed: United States; peanuts: United States, China; sunflowerseed: United States, Argentina; canola: Canada; copra: the Philippines; palm kernels: Malaysia. <sup>d</sup> US soybeans, cif Rotterdam, January–December year (for example, 1960-61 = 1960). **na** Not available.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; ISTA mielke GmbH, *Oil World Annual*, Hamburg.

## Oilseeds

### 185 World oilseeds production, by country <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Africa</b>								
South Africa	659	1 118	772	941	1 522	912	1 172	1 187
<b>Americas</b>								
Argentina	19 240	19 236	17 460	26 173	27 799	27 840	31 495	33 485
Brazil	27 051	25 012	27 988	33 391	32 331	35 611	40 824	45 074
Canada	9 601	8 795	7 283	9 195	10 490	11 696	9 936	6 705
Paraguay	2 442	2 654	2 884	3 168	3 245	3 096	3 685	3 450
United States	79 671	69 026	74 755	83 095	84 365	82 315	84 891	89 998
<b>Asia</b>								
China	42 248	43 327	41 445	43 410	44 903	45 761	51 135	52 570
India	23 917	25 518	27 936	24 943	25 735	23 022	21 463	25 113
Indonesia	5 232	5 449	5 972	5 067	5 236	5 766	5 837	6 066
Malaysia	2 403	2 521	2 678	2 516	2 813	3 096	3 430	3 478
Pakistan	3 152	4 031	3 671	3 658	3 668	4 396	4 113	3 857
Philippines	2 714	2 028	2 463	2 433	1 390	2 392	2 544	2 544
Turkey	1 675	2 170	1 865	1 962	2 060	2 210	1 850	1 885
Turkmenistan	644	550	260	370	415	420	350	350
Uzbekistan	2 400	2 200	2 014	2 300	2 000	2 150	1 920	2 100
<b>Europe</b>								
European Union <sup>b</sup>	12 687	13 137	12 951	14 970	15 178	16 680	14 207	13 951
Hungary	718	785	966	720	830	1 185	724	805
Poland	756	1 377	449	595	1 099	1 132	959	1 100
Romania	860	1 042	1 297	991	1 199	1 591	846	845
Russian Federation	3 096	4 615	3 154	3 182	3 422	4 619	4 405	3 198
Ukraine	1 620	2 897	2 156	2 370	2 369	2 913	3 653	2 434
<b>Oceania</b>								
Australia	1 223	1 641	1 740	1 989	3 058	3 769	3 065	2 947
Other countries	17 069	18 576	19 221	19 103	19 592	20 780	20 624	21 906
<b>Total</b>	<b>261 078</b>	<b>257 705</b>	<b>261 380</b>	<b>286 542</b>	<b>294 719</b>	<b>303 352</b>	<b>313 128</b>	<b>325 048</b>

<sup>a</sup> Oilseeds comprise soybeans, cottonseed, peanuts, sunflowerseed, canola, palm kernels and copra. <sup>b</sup> Regarded as fifteen countries for all years.  
Sources: ABARE, *Australian Crop Report*, Canberra; ABS, *Principal Agricultural Commodities, Australia*, Preliminary, cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat no. 7121.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

# 186 World oilseeds production, by type

	Castor- seed kt	Copra kt	Cotton- seed kt	Linseed kt	Palm kernels kt	Peanuts kt	Rape- seed <sup>a</sup> kt	Sesame seed kt	Soybeans kt	Sunflower- seed kt
1960-61	595	3 390	18 064	3 245	927	9 049	3 702	1 183	23 551	6 056
1961-62	570	3 079	17 767	3 265	795	9 537	3 556	1 413	26 945	7 085
1962-63	590	3 156	18 772	3 625	807	9 749	3 734	1 516	27 016	6 795
1963-64	675	3 423	20 163	3 525	823	10 611	2 924	1 546	28 121	6 466
1964-65	811	3 375	21 411	3 700	862	11 625	4 503	1 741	29 238	8 580
1965-66	784	3 528	22 085	3 675	847	10 956	5 042	1 572	31 700	8 110
1966-67	853	3 285	20 635	3 273	703	11 087	4 664	1 544	36 468	9 410
1967-68	909	3 335	20 163	2 738	762	11 849	5 724	1 727	37 773	9 791
1968-69	888	3 228	22 588	3 155	808	11 001	5 379	1 572	41 698	9 685
1969-70	866	3 203	20 148	3 995	885	10 705	5 264	1 624	42 478	10 155
1970-71	814	3 693	19 675	4 420	939	11 346	7 078	1 984	44 269	9 790
1971-72	854	4 291	21 631	3 024	906	11 777	7 661	1 827	47 184	10 019
1972-73	807	3 732	22 400	2 579	859	14 421	7 257	1 776	49 189	9 685
1973-74	997	3 204	22 862	2 763	993	16 251	7 098	1 873	62 377	12 175
1974-75	1 101	4 385	22 985	2 625	1 049	16 651	7 805	1 770	54 605	10 725
1975-76	800	5 020	19 888	2 873	1 078	18 468	8 385	1 671	65 543	9 959
1976-77	694	4 571	20 064	2 580	1 122	16 378	7 116	1 657	59 361	10 130
1977-78	773	4 745	22 685	3 392	1 157	16 735	7 820	1 779	72 114	12 822
1978-79	907	4 132	21 458	2 740	1 285	17 711	10 624	1 854	77 368	12 711
1979-80	875	4 287	23 248	3 089	1 415	17 183	9 933	1 852	93 339	15 162
1980-81	782	4 757	23 455	2 526	1 436	16 040	11 035	1 713	80 873	13 090
1981-82	914	4 508	26 348	2 459	1 708	19 581	12 253	2 069	86 050	14 664
1982-83	924	4 392	25 755	3 001	1 767	17 205	14 703	1 769	93 441	16 530
1983-84	970	3 693	24 211	2 640	1 975	18 510	14 259	1 951	83 092	15 328
1984-85	1 070	4 592	32 816	2 790	2 188	19 449	16 895	1 970	93 040	17 776
1985-86	1 180	5 231	29 415	3 010	2 467	19 784	18 536	1 960	96 958	19 331
1986-87	1 050	4 625	26 281	3 290	2 453	20 159	19 283	2 270	97 961	19 043
1987-88	830	4 299	30 206	2 790	2 609	20 656	23 192	2 230	103 310	20 674
1988-89	1 010	4 265	31 382	2 300	2 858	22 657	22 513	2 210	95 802	20 003
1989-90	1 110	5 022	29 785	2 450	3 256	21 670	21 891	2 140	107 148	21 584
1990-91	1 350	4 684	32 264	2 880	3 255	21 656	25 056	2 070	104 093	22 635
1991-92	1 170	4 665	35 504	2 460	3 343	21 879	28 223	2 350	107 298	21 684
1992-93	1 140	4 838	30 843	1 966	3 910	22 993	25 285	2 190	117 379	21 174
1993-94	1 115	4 890	28 940	2 191	4 137	24 229	26 735	2 400	117 771	20 621
1994-95	1 226	5 533	32 319	2 474	4 522	27 366	30 310	2 251	137 697	23 331
1995-96	1 368	5 134	35 147	2 619	4 868	27 467	34 435	2 408	124 912	25 742
1996-97	1 166	6 053	33 610	2 299	5 211	28 958	31 531	2 641	132 217	23 800
1997-98	1 191	5 330	34 354	2 436	5 050	27 289	33 234	2 752	158 066	23 211
1998-99	1 160	4 376	32 618	2 830	5 619	29 765	35 885	2 640	159 819	26 633
1999-00	1 270	5 457	32 926	2 890	6 407	29 056	42 473	2 710	159 904	27 217
2000-01	1 330	5 900	33 526	2 340	6 868	31 169	35 719	2 960	175 098	23 290
2001-02	1 010	5 255	36 582	2 150	7 124	33 758	36 167	2 810	183 724	21 266

<sup>a</sup> Predominantly canola since the late 1980s.

Sources: ISTA Mielke GmbH, *Oil World Annual*, Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## Oilseeds

### 187 World oilseeds trade, by type and country <sup>a</sup>

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Imports</b>								
Canola	5.90	5.80	5.97	6.76	9.09	10.97	9.32	7.66
China	0.24	0.00	0.00	0.29	2.15	3.68	2.36	0.80
European Union <sup>b</sup>	2.80	2.66	2.50	2.97	3.05	2.84	3.03	2.94
Japan	1.83	1.98	2.00	2.09	2.17	2.23	2.18	2.15
Copra	0.20	0.19	0.23	0.20	0.25	0.24	0.23	0.23
European Union <sup>b</sup>	0.08	0.06	0.11	0.10	0.09	0.10	0.10	0.10
Linseed	0.84	0.84	0.77	0.91	0.92	0.71	0.77	0.80
European Union <sup>b</sup>	0.54	0.55	0.43	0.57	0.58	0.42	0.59	0.61
Japan	0.07	0.08	0.08	0.08	0.08	0.06	0.05	0.05
Soybeans	32.69	32.91	37.42	39.50	40.72	47.97	55.04	57.05
China	0.16	0.80	2.27	2.94	3.85	10.10	13.25	10.50
European Union <sup>b</sup>	16.55	14.81	15.72	17.26	16.79	15.66	18.92	20.34
Japan	4.84	4.78	5.04	4.87	4.81	4.91	4.77	5.00
Mexico	1.87	2.40	2.72	3.48	3.76	3.95	4.37	4.90
Sunflowerseed	3.29	3.97	4.22	4.05	4.34	3.48	3.20	2.07
Israel	0.02	0.01	0.01	0.01	0.03	0.02	0.04	0.02
European Union <sup>b</sup>	2.31	3.06	3.32	2.90	3.33	2.77	2.56	1.59
Mexico	0.05	0.07	0.17	0.06	0.04	0.01	0.03	0.01
Turkey	0.55	0.50	0.36	0.58	0.60	0.44	0.31	0.22
Other oilseeds <sup>c</sup>	1.67	1.32	1.55	1.47	1.87	1.77	3.23	3.58
<b>Total</b>	<b>44.58</b>	<b>45.03</b>	<b>50.17</b>	<b>52.89</b>	<b>57.19</b>	<b>65.12</b>	<b>71.78</b>	<b>71.38</b>
<b>Exports</b>								
Canola	5.84	5.98	5.67	6.90	9.31	11.17	9.83	7.58
Australia	0.09	0.38	0.38	0.55	1.53	1.83	1.43	1.34
Canada	3.91	2.81	2.52	2.96	3.88	3.90	4.84	2.75
Copra	0.22	0.23	0.23	0.26	0.27	0.28	0.26	0.25
Papua New Guinea	0.07	0.07	0.07	0.10	0.07	0.08	0.08	0.08
Philippines	0.04	0.01	0.00	0.01	0.03	0.04	0.05	0.05
Linseed	0.84	0.85	0.78	0.89	0.93	0.71	0.79	0.77
Canada	0.80	0.81	0.75	0.84	0.89	0.67	0.72	0.69
Soybeans	32.25	31.97	37.02	41.05	38.72	46.68	55.07	57.13
Argentina	2.61	2.01	0.73	3.23	3.23	4.13	7.42	7.00
Brazil	3.49	3.63	8.75	8.75	8.93	11.16	15.47	16.20
United States	22.87	23.11	24.11	23.76	21.90	26.54	27.10	28.85
Sunflowerseed	3.18	3.65	4.16	3.93	4.45	3.39	3.48	2.24
Argentina	0.88	0.55	0.10	0.45	0.91	0.28	0.07	0.30
Hungary	0.26	0.25	0.22	0.16	0.15	0.15	0.20	0.18
Ukraine	0.10	0.45	1.10	0.79	0.88	0.41	1.02	0.10
United States	0.29	0.22	0.15	0.19	0.26	0.21	0.20	0.23
Other oilseeds <sup>c</sup>	1.84	1.68	1.68	1.57	1.46	2.41	2.02	0.00
<b>Total</b>	<b>44.16</b>	<b>44.35</b>	<b>49.54</b>	<b>54.59</b>	<b>55.13</b>	<b>64.64</b>	<b>71.46</b>	<b>67.97</b>

<sup>a</sup> Imports may not equal exports in any given period as a result of lags in shipping time. <sup>b</sup> Regarded as fifteen countries for all years; includes intra-EU trade. <sup>c</sup> Cottonseed, palm kernels and peanuts.

Sources: ISTA Mielke GmbH, *Oil World Annual*, Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

# 188 World protein meals trade, by type and country <sup>a</sup>

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Copra meal	1.10	0.84	1.03	1.02	0.69	0.89	1.24	1.15
European Union <sup>b</sup>	0.95	0.75	0.74	0.72	0.41	0.54	0.75	0.79
Korea, Rep. of	0.13	0.06	0.26	0.27	0.25	0.31	0.43	0.30
Fish meal	4.06	3.96	4.06	2.64	3.23	3.92	3.64	3.55
China	0.70	0.88	0.98	0.45	0.65	1.00	0.75	0.70
Chinese Taipei	0.42	0.35	0.31	0.17	0.29	0.29	0.30	0.31
European Union <sup>b</sup>	1.10	1.16	1.22	1.04	1.08	1.27	1.21	1.23
Peanut meal	0.59	0.53	0.50	0.44	0.30	0.29	0.29	0.30
European Union <sup>b</sup>	0.23	0.26	0.26	0.23	0.22	0.20	0.20	0.21
Thailand	0.15	0.13	0.13	0.12	0.05	0.05	0.05	0.05
Soybean meal	31.59	32.82	34.39	37.60	39.38	39.84	41.68	44.07
European Union <sup>b</sup>	17.12	16.10	14.80	17.09	19.93	19.81	20.44	21.43
Hungary	0.45	0.47	0.46	0.51	0.67	0.68	0.77	0.81
Indonesia	0.58	0.89	1.10	0.52	0.84	1.14	1.67	1.80
Philippines	0.90	0.90	0.97	1.05	1.06	1.10	1.25	1.30
Poland	0.70	0.78	0.80	0.93	0.81	0.90	1.22	1.30
Korea, Rep. of	0.96	1.06	0.81	0.88	1.10	1.09	1.45	1.14
Other meals <sup>c</sup>	9.06	9.99	10.20	10.57	10.47	10.70	10.06	9.72
<b>Total</b>	<b>46.38</b>	<b>48.13</b>	<b>50.18</b>	<b>52.27</b>	<b>54.07</b>	<b>55.64</b>	<b>56.90</b>	<b>58.78</b>
<b>Exports</b>								
Fish meal	4.30	3.87	4.38	2.65	3.39	3.99	3.62	3.58
European Union <sup>b</sup>	0.72	0.67	0.68	0.62	0.66	0.67	0.64	0.65
South America <sup>d</sup>	3.16	2.67	3.10	1.43	2.11	2.76	2.37	2.32
Peanut meal	0.62	0.58	0.52	0.50	0.32	0.33	0.33	0.35
India	0.32	0.26	0.30	0.22	0.05	0.01	0.01	0.01
Senegal	0.10	0.10	0.05	0.05	0.09	0.13	0.14	0.16
Sudan	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08
Soybean meal	32.39	32.22	32.90	41.32	38.87	39.21	42.60	44.41
Argentina	7.15	7.78	8.35	12.95	13.19	13.33	14.88	15.85
Brazil	11.47	10.90	9.80	10.85	10.15	9.87	10.85	11.02
European Union <sup>b</sup>	3.70	4.07	4.75	5.22	5.06	5.54	6.31	6.36
United States	6.09	5.45	6.34	8.46	6.46	6.65	6.95	7.03
Other meals <sup>e</sup>	10.92	11.41	11.74	11.87	11.71	12.51	10.39	11.64
<b>Total</b>	<b>48.23</b>	<b>48.08</b>	<b>49.53</b>	<b>56.33</b>	<b>54.28</b>	<b>56.03</b>	<b>56.93</b>	<b>59.98</b>

<sup>a</sup> Imports may not equal exports in any given period, as a result of lags in shipping time. <sup>b</sup> Regarded as fifteen countries for all years; includes intra-EU trade. <sup>c</sup> Canola, cottonseed, linseed, palm kernel, sesame seed and sunflowerseed. <sup>d</sup> Chile and Peru. <sup>e</sup> Canola, copra, cottonseed, linseed, palm kernel, sesame seed and sunflowerseed.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

## Oilseeds

### 189 World vegetable oils trade, by type and country

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Canola oil	2.78	2.56	2.55	2.69	2.61	2.67	2.59	2.43
European Union <b>b</b>	0.81	0.83	0.97	0.91	1.00	1.16	1.36	1.35
India	0.02	0.04	0.03	0.07	0.24	0.16	0.05	0.01
Coconut oil	1.62	1.44	1.62	1.96	1.39	1.73	1.99	1.96
European Union <b>b</b>	0.69	0.70	0.78	0.94	0.72	0.88	0.95	0.94
United States	0.50	0.40	0.54	0.65	0.36	0.42	0.50	0.49
Palm oil	10.23	10.53	11.68	11.01	12.61	13.99	17.10	17.72
European Union <b>b</b>	2.04	2.29	2.55	2.54	2.52	2.71	3.49	3.59
India	0.48	0.97	1.30	1.53	2.90	3.30	4.00	3.70
Pakistan	1.21	1.02	1.07	1.12	0.98	1.23	1.06	1.16
Singapore	0.98	0.98	0.98	0.25	0.29	0.43	0.64	0.55
Soybean oil	5.99	5.27	5.90	6.81	7.94	7.02	7.73	8.80
European Union <b>b</b>	0.55	0.50	0.60	0.62	0.68	0.58	0.64	0.62
India	0.06	0.06	0.05	0.24	0.83	0.79	1.40	1.45
Poland	0.08	0.07	0.07	0.10	0.10	0.09	0.13	0.13
Russian Federation	0.02	0.03	0.04	0.09	0.20	0.23	0.32	0.42
Sunflowerseed oil	3.25	3.20	3.67	3.32	3.56	3.46	2.92	2.44
European Union <b>b</b>	0.67	0.70	0.73	0.85	0.85	0.84	0.78	0.84
Other vegetable oils <b>c</b>	2.30	2.16	2.45	2.42	2.60	2.49	2.49	2.52
<b>Total</b>	<b>26.17</b>	<b>25.17</b>	<b>27.87</b>	<b>28.20</b>	<b>30.69</b>	<b>31.35</b>	<b>34.82</b>	<b>35.87</b>
<b>Exports</b>								
Canola oil	2.65	2.60	2.63	3.02	2.98	2.97	2.65	2.54
Canada	0.42	0.55	0.70	0.89	0.76	0.70	0.80	0.60
European Union <b>b</b>	1.81	1.75	1.60	1.74	1.88	1.99	1.59	1.69
Coconut oil	1.81	1.61	1.78	2.17	1.37	1.84	1.97	1.98
Philippines	1.33	0.90	1.02	1.39	0.60	1.15	1.24	1.24
Cottonseed oil	0.56	0.26	0.23	0.25	0.16	0.18	0.17	0.15
United States	0.15	0.10	0.11	0.09	0.05	0.06	0.06	0.07
Palm oil	10.69	10.94	12.27	11.39	13.05	14.79	17.30	17.66
Malaysia	6.63	6.66	7.54	7.42	8.10	8.85	10.48	10.60
Indonesia	1.80	2.08	2.43	2.36	3.10	4.00	4.54	4.75
Soybean oil	6.29	5.29	6.00	8.06	8.18	7.25	8.21	8.96
Argentina	1.48	1.63	1.86	2.73	3.06	3.08	3.41	3.62
Brazil	1.64	1.32	1.08	1.42	1.46	1.13	1.62	1.68
European Union <b>b</b>	1.26	1.16	1.46	1.75	1.71	1.69	1.76	1.76
United States	1.22	0.45	0.92	1.40	1.08	0.62	0.64	0.98
Sunflowerseed oil	3.51	3.17	3.81	3.58	3.82	3.75	2.94	2.69
Argentina	1.56	1.51	1.61	1.51	1.84	1.63	0.89	0.85
European Union <b>b</b>	0.84	0.74	1.13	1.03	0.96	0.87	0.82	0.77
Other vegetable oils <b>c</b>	1.85	1.87	2.25	2.37	1.75	2.37	1.72	2.67
<b>Total</b>	<b>27.36</b>	<b>25.72</b>	<b>28.97</b>	<b>30.84</b>	<b>31.32</b>	<b>33.14</b>	<b>34.96</b>	<b>36.64</b>

**a** Imports may not equal exports in any given period, as a result of lags in shipping time. **b** Regarded as fifteen countries for all years; includes intra-EU trade. **c** Castor, cottonseed, linseed, olive, palm kernel, peanut and sesame seed.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

# 190 Selected oilseed, oilseed meal and vegetable oil import price quotations, by country <sup>a</sup>

	Canola <sup>b</sup>	Palm oil <sup>c</sup>	Soybeans <sup>d</sup>	Soybean meal <sup>e</sup>	Soybean oil <sup>f</sup>
	US\$/t	US\$/t	US\$/t	US\$/t	US\$/t
1972-73	na	na	267.0	283.0	359.0
1973-74	na	na	260.0	193.0	727.0
1974-75	na	na	249.0	163.0	616.0
1975-76	na	na	215.0	169.0	418.0
1976-77	na	na	288.0	237.0	570.0
1977-78	na	na	259.0	205.0	581.0
1978-79	na	na	295.0	238.0	655.0
1979-80	na	na	278.0	242.0	609.0
1980-81	308.0	na	310.0	273.0	545.0
1981-82	292.0	na	253.0	225.0	463.0
1982-83	303.0	406.0	260.0	224.0	463.0
1983-84	351.0	767.0	301.1	221.0	722.0
1984-85	303.0	569.0	223.0	155.0	625.0
1985-86	239.0	274.0	210.8	183.0	377.0
1986-87	180.0	310.0	208.7	191.0	324.0
1987-88	222.0	402.0	282.3	254.0	443.0
1988-89	218.5	357.7	292.3	262.8	435.0
1989-90	213.3	270.8	246.9	204.3	437.5
1990-91	199.3	317.6	241.4	198.3	454.4
1991-92	203.8	365.2	237.4	202.8	437.3
1992-93	234.1	382.3	246.2	207.3	453.3
1993-94	284.3	445.6	258.8	201.5	580.2
1994-95	288.9	659.7	247.6	183.6	641.8
1995-96	297.6	523.3	303.4	256.3	574.9
1996-97	284.4	526.1	296.8	277.7	535.6
1997-98	296.1	601.3	257.5	196.8	633.4
1998-99	227.3	481.9	209.9	149.7	482.9
1999-00	190.1	307.5	209.8	179.7	354.9
2000-01	202.0	243.8	200.0	187.9	335.9
2001-02	220.4	340.6	203.0	174.3	411.6

<sup>a</sup> October–September average. <sup>b</sup> Cif Rotterdam; Europe '00' oil. <sup>c</sup> Malaysia fob; RBD. <sup>d</sup> Cif Rotterdam. <sup>e</sup> Cif Rotterdam; Arg. 45/46%. <sup>f</sup> Dutch fob; ex mill.  
<sup>na</sup> Not available.

Sources: UISTA mielke GmbH, *Oil World Annual*, Hamburg.

## Pulses

### 191 Summary of Australian statistics for pulses

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Lupins</b>									
Area	'000 ha	1 407.1	1 322.8	1 259.0	1 424.0	1 407.0	1 347.0	1 180.0	1 142.0
Yield	t/ha	0.8	1.2	1.2	1.1	1.2	1.5	0.9	1.1
Production	kt	1 076.2	1 559.0	1 522.6	1 561.0	1 696.0	1 968.0	1 055.0	1 220.0
Exports <sup>a</sup>	kt	491.1	886.9	881.0	972.0	969.5	1 312.2	450.0	660.2
Value of exports	\$m	89.4	84.7	195.0	193.0	170.7	229.9	121.7	130.6
Average unit value	\$/t	184.9	179.1	206.3	195.7	156.3	145.4	205.3	297.8
Gross value of production	\$m	199.0	279.2	314.1	305.5	265.0	286.1	216.6	363.4
<b>Field peas</b>									
Area	'000 ha	460.6	381.6	336.2	366.5	369.0	320.7	395.0	272.2
Yield	t/ha	0.5	1.4	1.3	0.9	0.8	1.1	1.2	1.5
Production	kt	240.4	529.9	453.8	315.7	298.0	357.3	455.0	416.4
Exports <sup>ab</sup>	kt	134.3	216.6	334.7	203.8	207.2	307.3	387.0	459.1
Value of exports <sup>b</sup>	\$m	41.0	62.2	97.1	66.9	62.6	89.8	111.7	156.9
Average unit value	\$/t	281.6	248.2	244.6	271.8	294.0	296.9	219.1	340.0
Gross value of production	\$m	67.7	131.5	111.0	85.8	87.6	106.1	99.7	141.6
<b>Chickpeas</b>									
Area	'000 ha	208.9	216.4	241.5	273.0	308.5	218.0	232.5	195.0
Yield	t/ha	0.3	1.3	1.2	0.7	0.6	1.1	0.6	1.3
Production	kt	68.9	286.9	287.7	198.6	187.6	229.9	145.5	258.0
Exports <sup>a</sup>	kt	36.4	112.1	341.8	255.9	109.4	217.5	217.8	278.0
Value of exports	\$m	23.5	51.1	119.7	118.0	50.1	100.8	112.6	166.9
Average unit value	\$/t	549.3	364.0	385.8	488.3	461.1	448.0	648.4	678.3
Gross value of production	\$m	37.8	104.4	111.0	97.0	86.5	103.0	94.3	175.0
<b>Total legumes <sup>c</sup></b>									
Area	'000 ha	2 223.6	2 076.4	2 030.0	2 309.4	2 390.8	2 146.7	2 074.7	1 870.4
Yield	t/ha	0.7	1.2	1.2	1.0	1.0	1.3	1.0	1.2
Production	kt	1 468.0	2 560.6	2 513.1	2 299.2	2 479.6	2 882.2	1 973.2	2 324.4
Exports <sup>ad</sup>	kt	741.8	1 339.5	1 691.2	1 554.3	1 475.4	2 206.4	1 481.8	1 934.8
Value of exports <sup>d</sup>	\$m	190.3	357.9	473.3	436.0	355.6	590.4	579.8	728.9
Average unit value	\$/t	222.1	224.5	210.5	235.4	191.2	219.7	236.3	227.7
Gross value of production	\$m	326.1	574.8	529.0	541.2	474.1	633.3	466.3	529.3

<sup>a</sup> Exports are on a financial year basis. <sup>b</sup> Includes only field peas and cow peas. <sup>c</sup> Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils. <sup>d</sup> Also includes cow peas, lentils, pigeon peas and some other minor legumes on a financial year basis.

Sources: ABS, *International Trade, electronic data service*, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia*, cat. no. 7503.0, Canberra; ABARE.



## Pulses

### 192 Australian area sown, yields and production of selected pulses, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
<b>Lupins</b>							
<b>Area</b>							
1995-96	'000 ha	91.7	50.5	0.5	1 100.3	79.6	1 322.8
1996-97	'000 ha	64.0	43.0	0.6	1 080.0	71.4	1 259.0
1997-98	'000 ha	80.0	41.0	0.0	1 207.0	96.0	1 424.0
1998-99	'000 ha	106.0	42.0	0.0	1 180.0	79.0	1 407.0
1999-00	'000 ha	135.0	35.0	0.0	1 104.0	73.0	1 347.0
2000-01	'000 ha	92.0	34.0	0.0	987.0	67.0	1 180.0
2001-02	'000 ha	102.0	33.0	0.0	924.0	83.0	1 142.0
<b>Yield</b>							
1995-96	t/ha	1.27	1.23	0.57	1.17	1.13	1.18
1996-97	t/ha	1.50	1.21	1.00	1.18	1.43	1.21
1997-98	t/ha	0.94	0.80	0.00	1.12	1.10	1.10
1998-99	t/ha	1.65	1.10	0.00	1.16	1.29	1.21
1999-00	t/ha	1.78	1.29	0.00	1.45	1.10	1.46
2000-01	t/ha	1.38	1.38	0.00	0.79	1.46	0.89
2001-02	t/ha	1.23	1.27	0.00	0.97	1.88	1.07
<b>Production</b>							
1995-96	kt	116.5	62.0	0.3	1 290.0	89.9	1 559.0
1996-97	kt	96.0	52.0	0.6	1 272.0	102.0	1 522.6
1997-98	kt	75.0	33.0	0.0	1 347.0	106.0	1 561.0
1998-99	kt	175.0	46.0	0.0	1 372.0	102.0	1 696.0
1999-00	kt	240.0	45.0	0.0	1 603.0	80.0	1 968.0
2000-01	kt	127.0	47.0	0.0	783.0	98.0	1 055.0
2001-02	kt	125.0	42.0	0.0	896.0	156.0	1 220.0
<b>Field peas</b>							
<b>Area</b>							
1995-96	'000 ha	20.1	171.9	0.0	37.6	151.6	381.6
1996-97	'000 ha	15.0	174.0	1.0	26.0	119.0	336.2
1997-98	'000 ha	17.5	170.5	1.0	36.5	140.0	366.5
1998-99	'000 ha	24.0	149.0	2.0	49.0	145.0	369.0
1999-00	'000 ha	17.0	131.0	0.0	46.0	125.7	320.7
2000-01	'000 ha	24.0	146.0	1.0	90.0	135.0	395.0
2001-02	'000 ha	26.0	102.0	0.0	40.0	104.2	272.2
<b>Yield</b>							
1995-96	t/ha	1.09	1.51	0.00	0.90	1.41	1.39
1996-97	t/ha	1.23	1.22	0.00	1.02	1.64	1.35
1997-98	t/ha	0.91	0.57	0.67	0.85	1.21	0.86
1998-99	t/ha	1.18	0.62	0.00	0.82	1.43	0.81
1999-00	t/ha	1.50	1.10	0.00	1.00	1.12	1.11
2000-01	t/ha	1.04	1.16	0.00	0.49	1.60	1.15
2001-02	t/ha	1.27	1.27	0.00	1.13	2.00	1.53
<b>Production</b>							
1995-96	kt	21.9	260.0	0.0	33.6	213.5	529.9
1996-97	kt	18.4	213.0	0.0	26.4	195.0	453.8
1997-98	kt	16.0	98.0	0.7	31.0	169.0	315.7
1998-99	kt	28.2	93.0	0.0	40.0	208.0	298.0
1999-00	kt	25.5	144.1	0.0	46.0	140.6	357.3
2000-01	kt	25.0	170.0	0.0	44.0	216.0	455.0
2001-02	kt	33.0	130.0	0.0	45.0	208.4	416.4

Continued

## Pulses

### 192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
<b>Chickpeas</b>							
<b>Area</b>							
1995-96	'000 ha	31.4	115.0	26.3	31.4	12.3	216.4
1996-97	'000 ha	31.2	135.0	20.8	42.6	11.9	241.5
1997-98	'000 ha	50.9	127.0	27.8	55.7	11.7	273.0
1998-99	'000 ha	74.7	125.9	41.5	50.9	15.5	308.5
1999-00	'000 ha	66.3	27.8	46.2	71.5	6.2	218.0
2000-01	'000 ha	90.0	6.0	90.0	45.0	1.5	232.5
2001-02	'000 ha	116.0	16.0	46.0	16.0	1.0	195.0
<b>Yield</b>							
1995-96	t/ha	0.98	1.74	0.50	0.84	1.40	1.33
1996-97	t/ha	1.31	1.27	1.27	0.75	1.42	1.19
1997-98	t/ha	0.91	0.59	0.84	0.67	1.43	0.73
1998-99	t/ha	0.71	0.35	0.82	0.84	0.87	0.61
1999-00	t/ha	1.29	0.82	0.99	0.99	0.79	1.05
2000-01	t/ha	0.44	1.50	0.78	0.56	1.00	0.63
2001-02	t/ha	1.39	1.47	1.33	0.69	1.00	1.32
<b>Production</b>							
1995-96	kt	30.6	199.6	13.1	26.3	17.3	286.9
1996-97	kt	40.8	171.9	26.4	31.8	16.8	287.7
1997-98	kt	46.4	74.9	23.4	37.2	16.7	198.6
1998-99	kt	52.8	44.6	33.8	42.9	13.4	187.6
1999-00	kt	85.6	22.8	45.9	70.7	4.9	229.9
2000-01	kt	40.0	9.0	70.0	25.0	1.5	145.5
2001-02	kt	161.5	23.5	61.0	11.0	1.0	258.0
<b>Faba beans</b>							
<b>Area</b>							
1995-96	'000 ha	10.2	23.1	1.9	19.2	26.0	80.4
1996-97	'000 ha	9.1	34.6	0.2	21.6	31.5	97.0
1997-98	'000 ha	21.3	47.1	3.5	37.8	45.0	154.8
1998-99	'000 ha	25.6	42.0	4.1	18.0	45.7	135.3
1999-00	'000 ha	16.8	55.1	0.0	16.2	58.7	146.8
2000-01	'000 ha	45.0	60.0	0.0	13.0	60.0	178.0
2001-02	'000 ha	37.0	55.0	0.0	13.0	75.0	180.0
<b>Yield</b>							
1995-96	t/ha	0.99	1.92	1.19	1.05	1.96	1.59
1996-97	t/ha	2.02	1.77	0.87	0.98	2.21	1.76
1997-98	t/ha	1.27	0.87	1.00	0.72	1.42	1.05
1998-99	t/ha	1.03	1.44	0.68	0.88	1.95	1.44
1999-00	t/ha	1.98	1.39	0.00	1.19	1.65	1.54
2000-01	t/ha	0.78	1.33	1.00	0.62	2.17	1.42
2001-02	t/ha	1.89	1.73	0.00	0.77	2.33	1.94
<b>Production</b>							
1995-96	kt	10.1	44.2	2.2	20.1	51.0	127.6
1996-97	kt	18.5	61.3	0.1	21.3	69.5	170.8
1997-98	kt	27.2	41.0	3.5	27.1	63.8	162.7
1998-99	kt	26.2	60.3	2.8	15.8	89.0	194.3
1999-00	kt	33.2	76.8	0.0	19.3	97.1	226.4
2000-01	kt	35.0	80.0	0.0	8.0	130.0	253.0
2001-02	kt	70.0	95.0	0.0	10.0	175.0	350.0

*Continued*

## Pulses

### 192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
<b>Mung beans</b>							
<b>Area</b>							
1995-96	'000 ha	11.1	0.0	23.5	0.0	0.0	34.5
1996-97	'000 ha	15.1	0.4	35.1	0.0	0.0	50.6
1997-98	'000 ha	12.7	0.0	33.7	0.0	0.0	46.4
1998-99	'000 ha	32.8	0.0	69.6	0.0	0.0	102.3
1999-00	'000 ha	20.0	0.0	28.0	0.0	0.0	48.0
2000-01	'000 ha	15.0	0.0	30.0	0.0	0.0	48.0
2001-02	'000 ha	18.0	0.0	25.0	0.0	0.0	43.0
<b>Yield</b>							
1995-96	t/ha	0.65	0.00	0.42	0.00	0.00	0.49
1996-97	t/ha	0.75	0.80	0.62	0.00	0.00	0.66
1997-98	t/ha	0.40	0.67	0.54	0.00	0.00	0.50
1998-99	t/ha	0.67	0.00	0.81	0.00	0.00	0.76
1999-00	t/ha	0.90	0.00	0.83	0.00	0.00	0.86
2000-01	t/ha	0.83	1.00	0.61	1.00	1.00	0.64
2001-02	t/ha	1.00	0.00	1.00	0.00	0.00	1.00
<b>Production</b>							
1995-96	kt	7.2	0.0	9.8	0.0	0.0	17.0
1996-97	kt	11.4	0.3	21.9	0.0	0.0	33.6
1997-98	kt	5.1	0.0	18.1	0.0	0.0	23.2
1998-99	kt	21.9	0.0	56.3	0.0	0.0	78.1
1999-00	kt	18.1	0.0	23.2	0.0	0.0	41.3
2000-01	kt	12.5	0.0	18.2	0.0	0.0	30.7
2001-02	kt	18.0	0.0	25.0	0.0	0.0	43.0
<b>Navy beans</b>							
<b>Area</b>							
1995-96	'000 ha	0.1	0.1	6.4	0.0	0.0	6.6
1996-97	'000 ha	0.1	0.1	5.5	0.0	0.0	5.7
1997-98	'000 ha	0.0	0.0	5.0	0.0	0.0	5.0
1998-99	'000 ha	0.0	0.0	4.0	0.0	0.0	4.0
1999-00	'000 ha	0.0	0.0	4.2	0.0	0.0	4.2
2000-01	'000 ha	0.0	0.0	4.2	0.0	0.0	4.2
2001-02	'000 ha	0.0	0.0	4.2	0.0	0.0	4.2
<b>Yield</b>							
1995-96	t/ha	1.00	1.00	0.94	0.00	0.00	0.94
1996-97	t/ha	1.01	1.01	0.74	0.00	0.00	0.75
1997-98	t/ha	0.00	0.00	1.06	0.00	0.00	1.06
1998-99	t/ha	0.00	0.00	0.85	0.00	0.00	0.85
1999-00	t/ha	0.00	0.00	1.43	0.00	0.00	1.43
2000-01	t/ha	0.00	1.00	1.43	0.00	0.00	1.43
2001-02	t/ha	0.28	0.00	1.67	0.00	0.00	1.67
<b>Production</b>							
1995-96	kt	0.1	0.1	6.0	0.0	0.0	6.2
1996-97	kt	0.1	0.1	4.1	0.0	0.0	4.3
1997-98	kt	0.0	0.0	5.3	0.0	0.0	5.3
1998-99	kt	0.0	0.0	3.4	0.0	0.0	3.4
1999-00	kt	0.0	0.0	6.0	0.0	0.0	6.0
2000-01	kt	0.0	0.0	6.0	0.0	0.0	6.0
2001-02	kt	0.0	0.0	7.0	0.0	0.0	7.0

*Continued*

## Pulses

### 192 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
<b>Total pulses b</b>							
<b>Area</b>							
1995-96	'000 ha	169.7	372.6	58.5	1 188.4	286.5	2 076.4
1996-97	'000 ha	139.6	399.1	63.2	1 170.2	256.7	2 030.0
1997-98	'000 ha	187.4	398.3	71.0	1 337.0	314.7	2 309.4
1998-99	'000 ha	263.5	379.3	121.1	1 299.7	327.2	2 390.8
1999-00	'000 ha	257.1	263.9	78.4	1 247.7	298.6	2 146.7
2000-01	'000 ha	266.0	256.0	125.2	1 137.0	288.5	2 074.7
2001-02	'000 ha	300.0	216.0	75.2	996.0	283.2	1 870.4
<b>Yield</b>							
1995-96	t/ha	1.13	1.55	0.54	1.15	1.36	1.23
1996-97	t/ha	1.35	1.28	0.84	1.15	1.59	1.24
1997-98	t/ha	0.93	0.65	0.72	1.08	1.19	1.00
1998-99	t/ha	1.16	0.65	0.80	1.13	1.31	1.04
1999-00	t/ha	1.57	1.15	0.96	1.40	1.18	1.34
2000-01	t/ha	0.90	1.23	0.75	0.76	1.60	0.95
2001-02	t/ha	1.36	1.39	1.24	0.97	1.96	1.24
<b>Production</b>							
1995-96	kt	191.5	577.9	31.4	1 370.1	388.7	2 560.6
1996-97	kt	188.2	510.7	53.1	1 351.5	408.7	2 513.1
1997-98	kt	174.6	257.0	51.0	1 442.3	373.1	2 299.2
1998-99	kt	304.4	248.2	96.3	1 472.3	428.5	2 479.6
1999-00	kt	404.4	303.7	75.1	1 747.0	350.9	2 882.2
2000-01	kt	239.5	315.0	94.2	862.0	462.5	1 973.2
2001-02	kt	408.5	300.5	93.0	963.0	555.4	2 324.4

a Includes data for Tasmania and the Northern Territory. b Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABS, *Crops and Pastures, Queensland*, cat. no. 7321.3, Brisbane; ABS, *Summary of Crops, Australia*, cat. no. 7330, Canberra; ABARE, *Australian Crop Report*, Canberra.

# 193 World pulses production, by region and country

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt
<b>Africa</b>								
Burundi	377	259	358	327	311	313	261	219
Egypt	507	421	459	509	536	587	379	429
Ethiopia	586	527	800	874	863	787	945	1 049
Nigeria	1 626	1 595	1 801	1 897	1 959	2 105	2 158	2 200
Uganda	543	498	512	359	349	520	561	585
<b>Americas</b>								
Brazil	2 490	3 386	2 966	2 474	2 864	2 200	2 841	3 058
Canada	1 462	2 075	2 103	1 724	2 326	3 063	3 479	4 439
Mexico	1 595	1 637	1 562	1 783	1 318	1 459	1 364	1 226
United States	1 285	1 552	1 764	1 480	1 743	1 780	1 864	1 534
<b>Asia</b>								
China	4 222	4 968	4 479	4 692	4 043	4 865	4 704	4 696
India	12 366	13 305	14 903	13 217	14 119	13 249	14 957	13 417
Myanmar	855	834	1 033	1 273	1 298	1 429	1 581	1 706
Pakistan	755	803	994	1 098	992	1 162	1 061	900
Thailand	319	292	282	263	245	271	289	273
<b>Europe</b>								
Denmark	454	379	284	259	386	388	195	182
France	3 749	3 451	2 770	2 629	3 121	3 310	2 715	2 053
Poland	411	215	268	276	260	274	317	314
Russian Federation	2 891	2 673	1 498	1 711	1 579	889	796	1 155
Ukraine	2 898	2 636	1 570	1 122	1 072	770	628	652
United Kingdom	943	824	605	558	748	702	752	785
<b>Middle East</b>								
Turkey	1 946	1 679	1 849	1 832	1 700	1 580	1 409	1 389
<b>Oceania</b>								
Australia <sup>a</sup>	1 353	1 857	2 041	1 468	2 561	2 513	2 299	2 480
<b>Total <sup>b</sup></b>	<b>50 936</b>	<b>54 514</b>	<b>55 998</b>	<b>55 552</b>	<b>53 971</b>	<b>54 965</b>	<b>56 231</b>	<b>57 071</b>

<sup>a</sup> On a fiscal year basis, for example, 1992-93 = 1993. <sup>b</sup> Includes some unspecified countries.

Sources: ABARE, *Australian Crop Report*, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat. no. 7112.0, Canberra; FAO, *Production Yearbook*, Rome; <http://apps.fao.org/hage/collections?subset=agriculture>.

## Pulses

### 194 World pulses trade, by region and country

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt
<b>Imports</b>							
<b>Africa</b>							
Algeria	160.1	129.8	250.4	135.4	146.5	142.5	160.5
Egypt	200.7	174.3	187.5	123.2	164.1	327.5	262.7
South Africa	81.3	118.4	61.6	82.4	61.8	59.8	62.0
<b>Americas</b>							
Brazil	258.4	205.9	122.7	196.5	254.6	134.7	120.8
Colombia	120.3	107.5	101.8	148.3	135.8	132.0	174.7
Cuba	140.0	100.0	124.1	181.4	155.0	219.2	119.8
Mexico	83.1	45.8	173.1	129.8	245.2	168.4	133.5
United States	89.5	110.8	111.0	130.0	120.8	201.5	210.8
Venezuela	69.9	115.4	81.4	92.6	100.2	101.1	108.2
<b>Asia</b>							
China	72.2	71.6	263.5	187.1	167.5	126.7	190.2
Hong Kong, China	35.9	25.0	18.3	17.0	17.9	17.6	14.5
India	582.1	502.0	692.4	1 084.4	628.8	269.3	352.5
Japan	237.4	186.2	162.6	173.2	158.2	171.3	170.0
Malaysia	55.0	62.0	88.5	85.1	55.2	66.8	38.3
Singapore	38.0	36.4	44.0	57.5	55.5	37.7	34.6
<b>Europe</b>							
Belgium–Luxembourg	519.7	675.2	661.1	538.2	600.7	591.1	0.0
France	168.3	234.5	166.9	114.4	112.8	110.3	161.5
Germany	563.9	469.9	278.2	202.6	184.4	209.9	138.5
Italy	419.9	552.7	386.6	379.6	407.2	417.9	436.5
Netherlands	719.2	776.2	613.5	450.7	594.2	584.7	330.3
Spain	748.4	830.1	589.1	636.3	784.1	776.7	850.3
United Kingdom	174.5	154.5	174.5	176.5	166.6	175.6	160.3
<b>Middle East</b>							
Iraq	18.0	11.8	13.4	23.5	8.5	10.5	10.5
United Arab Emirates	102.0	83.8	74.8	74.8	74.8	74.8	2.2
<b>Total a</b>	<b>7 443.0</b>	<b>7 521.0</b>	<b>6 999.6</b>	<b>7 145.4</b>	<b>7 156.2</b>	<b>7 158.0</b>	<b>7 160.3</b>

*Continued*

# 194 World pulses trade, by region and country (continued)

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt
<b>Exports</b>							
<b>Americas</b>							
Argentina	214.7	201.0	162.7	310.7	321.1	281.7	283.4
Canada	1 067.6	1 487.1	1 275.7	1 304.6	1 688.7	2 096.6	2 695.0
Chile	36.9	35.8	26.8	21.8	20.8	12.6	13.4
Mexico	164.1	171.9	146.9	106.3	117.8	165.1	167.4
United States	599.3	594.6	544.8	539.1	713.3	615.1	569.3
<b>Asia</b>							
China	1 462.1	1 041.6	547.5	594.1	472.9	811.2	572.2
Burma	424.9	609.6	594.8	768.9	621.5	650.7	35.4
Singapore	23.9	24.0	30.2	46.2	46.5	26.5	23.7
Thailand	75.9	47.0	37.0	21.1	32.6	45.5	48.6
<b>Europe</b>							
Belgium–Luxembourg	105.5	194.3	177.7	117.1	100.0	60.3	0.0
Denmark	177.8	65.1	47.0	131.5	80.5	85.9	46.9
France	898.3	1 093.0	918.3	846.1	1 122.9	1 238.7	819.5
Hungary	64.8	54.3	26.2	16.0	20.0	22.8	10.7
Netherlands	112.2	64.9	54.0	80.4	104.4	93.6	80.3
United Kingdom	221.7	293.3	183.3	195.1	185.5	227.6	252.5
<b>Middle East</b>							
Turkey	411.7	282.7	502.3	489.8	354.5	233.3	163.3
<b>Oceania</b>							
Australia <b>b</b>	1 691.1	741.8	1 339.3	1 554.3	1 553.1	1 475.4	2 206.4
New Zealand	45.2	39.9	35.0	34.3	23.9	34.7	24.8
<b>Total <sup>a</sup></b>	<b>7 849.5</b>	<b>7 924.3</b>	<b>6 884.3</b>	<b>7 510.3</b>	<b>7 431.1</b>	<b>8 325.5</b>	<b>7 802.4</b>

<sup>a</sup> Includes some unspecified countries. <sup>b</sup> Includes lupin exports. On a fiscal year basis: for example 1992-93 = 1993.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; FAO, <http://appr.fao.org/page/collections?subset=agriculture>.

# 195

## Summary of Australian statistics for rice <sup>a</sup>

	Area '000 ha	Yield <sup>b</sup> t/ha	Production		Exports		Apparent consumption <sup>d</sup> kt
			Volume <sup>b</sup> kt	Unit value <sup>c</sup> \$/t	Volume <sup>d</sup> kt	Unit value <sup>e</sup> \$/t	
1960-61	18.7	6.1	114.3	72.6	60.3	107.8	17.2
1961-62	20.3	6.6	134.2	57.4	50.8	114.2	17.5
1962-63	22.2	6.1	135.8	56.7	56.8	121.5	17.9
1963-64	24.0	5.9	142.0	55.6	56.1	130.1	18.2
1964-65	24.9	6.1	153.0	55.6	64.2	124.6	21.3
1965-66	26.1	7.0	181.7	56.1	63.9	126.8	25.2
1966-67	29.8	7.2	214.3	57.9	89.2	128.9	27.5
1967-68	30.7	7.0	214.5	59.7	99.0	141.4	28.2
1968-69	33.7	7.4	248.2	58.0	107.0	146.7	29.1
1969-70	40.2	6.1	247.0	58.7	120.7	141.7	30.2
1970-71	40.7	7.4	299.8	45.7	95.9	137.6	32.6
1971-72	40.5	6.1	248.4	47.9	169.3	114.6	33.1
1972-73	45.2	6.8	308.6	81.0	152.0	139.5	29.0
1973-74	67.5	6.1	408.8	123.5	124.8	229.2	27.4
1974-75	75.6	5.1	386.7	92.8	159.8	268.5	32.2
1975-76	74.8	5.6	417.0	98.8	215.2	238.8	33.5
1976-77	92.0	5.8	529.8	112.1	254.4	224.4	33.3
1977-78	91.4	5.4	490.3	124.6	273.2	241.9	34.8
1978-79	110.2	6.3	692.2	141.3	239.4	276.1	35.5
1979-80	116.4	5.3	613.1	153.3	449.6	288.9	37.1
1980-81	103.9	7.3	759.8	181.6	276.0	362.3	43.0
1981-82	123.0	7.0	857.0	121.4	558.0	349.5	43.9
1982-83	84.8	6.1	519.8	169.3	384.0	312.5	46.3
1983-84	119.1	5.3	634.2	140.3	241.0	381.7	50.5
1984-85	121.8	7.1	864.1	142.5	327.0	357.8	57.1
1985-86	106.1	6.5	687.5	138.8	464.6	398.2	58.6
1986-87	95.9	5.7	549.2	142.0	394.0	352.8	60.0
1987-88	105.4	7.2	761.1	204.0	314.6	391.0	80.2
1988-89	97.0	8.3	805.0	165.9	160.6	452.5	89.4
1989-90	105.0	8.8	924.0	153.0	149.8	486.7	97.6
1990-91	89.0	8.8	787.0	173.0	257.7	370.8	103.0
1991-92	127.0	8.8	1 122.0	158.1	465.1	445.9	90.6
1992-93	125.0	7.6	955.0	182.9	484.5	477.6	86.9
1993-94	132.7	8.2	1 082.0	265.2	533.7	506.6	98.7
1994-95	129.2	8.8	1 137.0	232.5	583.8	586.1	108.5
1995-96	149.7	6.4	951.2	207.1	632.5	531.7	118.2
1996-97	166.7	8.3	1 388.0	194.7	520.3	559.9	133.7
1997-98	141.2	9.4	1 330.9	225.6	680.4	583.2	135.5
1998-99	151.7	9.2	1 389.8	213.1	581.8	667.6	133.0
1999-00	133.3	8.3	1 100.7	232.6	672.1	616.4	na
2000-01	177.0	9.3	1 643.0	213.2	601.8	636.5	na
2001-02	150.0	8.5	1 275.0	217.7	628.7	515.9	na

<sup>a</sup> Based on rice industry figures calculated on a crop year basis. For example, the 1985-86 data are for the Queensland summer crop harvested from December 1985, the New South Wales crop harvested from April 1986, and the Queensland winter crop harvested from June 1986. <sup>b</sup> Paddy. <sup>c</sup> Unit gross value of production. <sup>d</sup> Based on ABS data: April–March marketing year basis; generally exports of the crop harvested in the previous year – that is, 1998-99 exports are sourced from the 1997-98 crop harvest. Milled. <sup>e</sup> Unit gross value of exports. Between 1952-53 and 1987-88, calculated from financial year total export values. From 1988-89, calculated from marketing year (April–March) total export values. <sup>f</sup> Table rice only. Excludes rice used for feed, breakfast cereals and rice used for other purposes; includes imports. Financial year basis. **na** Not available.

Sources: ABS, *Apparent Consumption of Foodstuffs and Nutrients Australia*, cat. no. 4306.0, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Rice Marketing Board for the State of New South Wales, *Annual Report*, Leeton; ABARE.



## Rice

### 196 Australian rice area, yield and production, by state and type

		New South Wales			Queensland	
	Unit	Medium grain	Long grain	Total <sup>a</sup>	Long grain	Australia
Area <sup>b</sup>						
1991-92	'000 ha	na	na	123	4	127
1992-93	'000 ha	na	na	123	2	125
1993-94	'000 ha	na	na	133	0	133
1994-95	'000 ha	na	na	129	0	129
1995-96	'000 ha	na	na	150	0	150
1996-97	'000 ha	na	na	167	0	167
1997-98	'000 ha	na	na	141	0	141
1998-99	'000 ha	na	na	152	0	152
1999-00	'000 ha	na	na	133	0	133
2000-01	'000 ha	na	na	177	0	177
2001-02	'000 ha	na	na	150	0	150
Yield <sup>c</sup>						
1991-92	t/ha	na	na	8.89	7.00	8.83
1992-93	t/ha	na	na	7.67	5.50	7.64
1993-94	t/ha	na	na	8.16	na	8.16
1994-95	t/ha	na	na	8.77	na	8.80
1995-96	t/ha	na	na	6.35	na	6.35
1996-97	t/ha	na	na	8.28	na	8.33
1997-98	t/ha	na	na	9.35	na	9.42
1998-99	t/ha	na	na	9.11	na	9.16
1999-00	t/ha	na	na	8.14	na	8.26
2000-01	t/ha	na	na	9.18	na	9.28
2001-02	t/ha	na	na	8.50	na	8.50
Production <sup>c</sup>						
1991-92	kt	804	290	1 094	28	1 122
1992-93	kt	691	195	944	11	955
1993-94	kt	738	282	1 082	0	1 082
1994-95	kt	814	274	1 134	0	1 137
1995-96	kt	698	217	951	0	951
1996-97	kt	1 077	256	1 381	0	1 388
1997-98	kt	978	284	1 321	0	1 331
1998-99	kt	978	286	1 382	0	1 390
1999-00	kt	803	233	1 084	0	1 101
2000-01	kt	1 291	375	1 625	0	1 643
2001-02	kt	944	274	1 275	0	1 275

<sup>a</sup> Includes medium grain, long grain, fragrant and other varieties from 1992-93. <sup>b</sup> Rice industry figures. <sup>c</sup> Paddy. **na** Not available or not applicable.

Sources: ABARE, *Australian Crop Report*, Canberra; Queensland Rice Marketing Board, *Annual Report*, Home Hill; Rice Marketing Board for the State of New South Wales, *Annual Report*, Leeton; Ricegrowers Co-operative Mills Ltd.

# 197 Australian rice trade and payments to growers

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Exports a</b>									
Quantity	kt	584	632	520	680	582	672	602	629
Total export value b	\$m	342	336	291	397	388	414	383	324
<b>Imports ac</b>									
Quantity	kt	27	28	36	38	39	48	50	55
Total import value	\$m	19	20	26	33	34	38	44	43
<b>Indicator price</b>									
Thai white rice d	US\$/t	289.76	362.42	337.83	302.25	283.75	230.58	184.17	191.67
Exchange rate	US\$/A\$	0.74	0.76	0.78	0.68	0.63	0.63	0.54	0.52
Australian price e	A\$/t	391.97	479.73	433.13	444.98	453.49	366.01	341.68	365.92
<b>Average returns to growers f</b>									
New South Wales	\$/t	233.2	207.1	194.6	225.6	213.1	213.3	207.5	220.0

a Milled equivalent; marketing year (April–March) basis. b Free on board (fob). c Excludes broken rice. d US Department of Agriculture sourced nominal quote for Thai white rice, 100 per cent, grade B/2nd grade, fob Bangkok (August–July basis). e Derived. f For paddy rice from harvest in year indicated. Returns to New South Wales and Queensland growers include bonuses paid by respective rice growers cooperatives. For New South Wales growers, returns take into account a deduction for grower equity in storage facilities made by the Rice Marketing Board, New South Wales. Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Queensland Rice Marketing Board, *Annual Report*, Home Hill; Rice Marketing Board, New South Wales, *Annual Report*, Leeton; Ricegrowers Co-operative Mills Ltd; US Department of Agriculture, *Rice News*, Little Rock, Arkansas; ABARE.

## Rice

### 198 Summary of world statistics for rice <sup>a</sup>

	Area harvested million ha	Production <sup>b</sup> Mt	Total use Mt	Closing stocks <sup>bc</sup> Mt	Stocks to use ratio %	Trade <sup>d</sup> Mt	Export price <sup>e</sup> US\$/t
1960-61	120	151	157	10	7	7	132.33
1961-62	116	147	149	9	6	6	146.67
1962-63	120	155	151	13	8	7	149.42
1963-64	122	169	165	16	10	8	140.25
1964-65	125	181	180	17	10	8	135.00
1965-66	124	173	172	18	11	8	149.08
1966-67	126	179	179	19	10	8	181.67
1967-68	127	189	186	21	11	7	220.17
1968-69	129	195	192	25	13	7	186.75
1969-70	131	201	199	26	13	8	161.33
1970-71	133	213	211	29	14	9	131.83
1971-72	135	216	217	28	13	9	134.17
1972-73	133	209	213	24	11	8	187.12 <sup>f</sup>
1973-74	136	228	223	29	13	8	593.51 <sup>g</sup>
1974-75	138	226	226	28	12	7	439.12
1975-76	143	243	232	39	17	8	302.84
1976-77	141	236	237	38	16	11	274.66
1977-78	143	251	244	44	18	10	360.92
1978-79	144	262	252	54	21	12	339.83
1979-80	141	257	257	54	21	13	409.83
1980-81	144	270	275	53	19	13	492.58
1981-82	144	278	283	51	18	11	379.83
1982-83	141	285	285	57	20	12	280.42
1983-84	145	307	303	69	23	12	278.33
1984-85	144	317	309	88	28	12	211.29
1985-86	145	318	319	98	31	12	191.13
1986-87	145	316	320	103	32	13	189.66
1987-88	142	315	321	105	33	12	272.63
1988-89	146	331	327	111	34	15	292.44
1989-90	147	344	338	119	35	13	292.06
1990-91	147	352	345	126	37	15	296.09
1991-92	147	355	354	127	36	16	287.30
1992-93	146	356	359	124	35	17	244.25
1993-94	145	355	359	120	33	21	293.98
1994-95	147	365	366	118	32	20	289.76
1995-96	148	371	372	118	32	19	362.42
1996-97	150	380	379	119	31	28	337.83
1997-98	151	387	380	126	33	25	302.25
1998-99	152	394	387	133	34	23	283.75
1999-00	155	409	399	143	36	25	230.58
2000-01	152	398	396	145	37	24	184.17
2001-02	152	397	410	132	32	26	191.67

<sup>a</sup> Based on US Department of Agriculture data. <sup>b</sup> Milled. <sup>c</sup> Closing stocks data are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time. Stocks data do not include some major stockholders – for example, China and Burma – for which official information is not available. <sup>d</sup> Calendar year basis, 1960-61 = 1961; includes intra-EU trade. <sup>e</sup> Thai white rice, 100 per cent, 2nd grade/grade B, fob Bangkok (August–July basis). From 1960-61 to 1983-84, prices are quoted from Thailand Board of Trade. From 1984-85, prices are nominal quotes from the US Department of Agriculture. <sup>f</sup> August–March average. <sup>g</sup> January–July average. Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *Rice Market News*, Arkansas; US Department of Agriculture, Rice Outlook, (<http://usda.mannlib.cornell.edu/reports/erssor/field/rcs-bb/>); ABARE.

# 1999

## World rice production, by country or region <sup>a</sup>

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Australia	1.1	1.0	1.4	1.3	1.4	1.1	1.6	1.3
Bangladesh	25.3	26.5	28.3	28.3	29.8	34.6	37.6	38.3
Brazil	11.2	10.0	9.5	8.5	11.6	11.4	10.4	11.0
China	175.9	185.2	195.1	200.7	198.7	198.5	187.9	180.0
European Union <sup>b</sup>	2.2	2.1	2.6	2.7	2.7	2.7	2.5	2.6
India	121.8	119.4	122.0	123.8	129.0	134.6	127.3	135.0
Indonesia	49.7	51.1	49.4	49.2	50.4	52.9	51.5	51.3
Japan	15.0	13.4	12.9	12.5	11.2	11.5	11.9	11.3
Korea, Rep. of	6.9	6.4	7.1	7.4	6.8	7.1	7.2	7.5
Myanmar	16.0	17.0	15.5	15.3	16.0	17.0	18.6	18.0
Pakistan	5.2	6.0	6.5	6.5	7.0	7.7	7.1	5.6
Philippines	10.5	11.2	11.2	10.0	10.3	12.0	12.5	13.3
Thailand	21.4	21.8	20.7	23.5	23.6	25.0	25.6	25.0
United States	9.0	7.9	7.8	8.3	8.4	9.3	8.7	9.7
Viet Nam	24.6	26.8	27.3	28.9	30.5	31.7	31.0	31.3
World	540.2	551.4	563.6	574.3	585.7	607.9	591.7	590.8

<sup>a</sup> Crop year (paddy basis). <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; ABARE.

## Rice

### 200 World rice trade, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Imports</b>								
Bangladesh	1.57	0.67	0.06	2.52	1.22	0.64	0.48	0.40
Brazil	0.58	0.79	0.83	1.56	0.78	0.70	0.67	0.60
China	2.00	0.85	0.32	0.26	0.18	0.28	0.27	0.31
European Union <sup>b</sup>	0.76	0.95	0.84	0.79	0.78	0.85	0.80	0.80
India	0.00	0.00	0.00	0.01	0.00	0.09	0.00	0.00
Indonesia	3.08	1.08	0.84	5.77	3.73	1.50	1.50	2.75
Iran	1.76	1.57	1.29	0.84	1.31	1.10	1.00	1.25
Iraq	0.10	0.23	0.74	0.63	0.78	1.27	1.00	1.00
Japan	0.14	0.44	0.56	0.47	0.63	0.66	0.68	0.65
Malaysia	0.40	0.56	0.64	0.63	0.62	0.60	0.60	0.60
Nigeria	0.30	0.35	0.73	0.90	0.95	1.25	1.80	1.50
Philippines	0.28	0.70	0.81	2.19	1.00	0.90	1.18	0.65
Russian Federation	0.13	0.41	0.29	0.22	0.58	0.40	0.24	0.28
Saudi Arabia	0.62	0.81	0.66	0.78	0.75	0.99	0.97	1.00
World <sup>c</sup>	20.75	19.73	18.86	27.65	24.94	22.85	24.79	24.47
<b>Exports</b>								
Australia	0.63	0.52	0.58	0.66	0.56	0.67	0.63	0.63
China	0.50	0.27	0.94	3.73	2.71	2.95	1.86	1.50
European Union <sup>b</sup>	0.03	0.32	0.37	0.35	0.35	0.31	0.35	0.35
India	0.05	3.68	2.09	4.67	2.75	1.45	1.80	4.00
Myanmar	4.16	0.27	0.02	0.09	0.06	0.16	0.67	1.00
Pakistan	0.65	1.67	1.78	1.99	1.84	2.03	2.42	1.25
Thailand	1.76	5.28	5.22	6.37	6.68	6.55	7.52	7.25
United States	5.94	2.63	2.30	3.17	2.64	2.85	2.63	2.80
Viet Nam	2.97	3.04	3.33	3.78	4.56	3.37	3.53	3.25
World <sup>c</sup>	20.75	19.73	18.86	27.65	24.94	22.85	24.79	24.47

<sup>a</sup> Milled basis. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. Includes intra-EU trade. <sup>c</sup> Includes intra-EU trade.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; ABARE.

### 201 US rice supply and disposal <sup>a</sup>

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Area harvested	million ha	1.34	1.25	1.14	1.26	1.32	1.42	1.23	1.30
Yield	t/ha	6.69	6.30	6.86	6.61	6.35	6.58	7.04	7.41
Opening stocks <sup>b</sup>	Mt	0.87	1.05	0.81	0.87	0.88	0.69	0.87	0.89
Production <sup>b</sup>	Mt	6.65	5.63	5.45	5.75	5.80	6.50	5.94	6.67
Total supply <sup>c</sup>	Mt	7.73	6.95	6.60	6.91	7.01	7.52	7.18	7.97
Exports	Mt	3.32	2.69	2.49	2.76	2.73	2.80	2.64	4.31
Long grain	Mt	2.73	2.12	1.82	2.26	2.25	2.24	2.05	3.36
Medium-short grain	Mt	0.59	0.57	0.66	0.50	0.48	0.57	0.59	0.95
Domestic and residual use	Mt	3.40	3.42	3.24	3.28	3.59	3.85	3.82	3.91
Total use	Mt	6.72	6.11	5.73	6.03	6.32	6.65	6.46	6.75
Target price <sup>d</sup>	US\$/t	236	236	na	na	na	na	na	na
Statutory loan rate	US\$/t	143	143	143	143	143	143	143	143
Farm price	US\$/t	149	202	220	214	196	131	124	92

<sup>a</sup> August–July marketing year. <sup>b</sup> Milled basis. <sup>c</sup> Includes imports. <sup>d</sup> Eliminated under the 1996 Farm Act. <sup>na</sup> Not applicable.

Sources: US Department of Agriculture, *Rice Situation and Outlook Yearbook*, Washington DC; US Department of Agriculture, *Rice Situation and Outlook Report*, Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular*, Washington DC; ABARE.

# 202 Rice export price quotations, by country <sup>a</sup>

	Thailand Nominal price quote-US <sup>b</sup> US\$/t	Arkansas <sup>c</sup> US\$/t	California <sup>d</sup> US\$/t
1980-81	492.58	563.00	611.23
1981-82	379.83	445.42	461.59
1982-83	280.42	392.79	350.90
1983-84	278.33	411.25	340.34
1984-85	211.29	397.45	336.20
1985-86	191.13	355.77	345.46
1986-87	189.66	259.68	286.41
1987-88	272.63	441.47	371.11
1988-89	292.44	344.65	368.26
1989-90	292.06	354.85	357.51
1990-91	296.09	344.84	354.67
1991-92	287.30	368.17	396.09
1992-93	244.25	312.04	395.17
1993-94	293.98	442.48	486.35
1994-95	289.76	317.91	391.51
1995-96	362.42	420.07	464.80
1996-97	337.83	458.22	432.27
1997-98	302.25	419.83	412.52
1998-99	283.75	373.83	483.96
1999-00	230.58	283.06	474.55
2000-01	184.17	275.98	338.53
2001-02	191.67	176.00	292.20
<b>2001</b>			
January	190.00	296.26	339.76
February	190.00	286.34	326.27
March	182.00	286.34	291.85
April	170.00	275.33	283.59
May	172.00	262.11	280.84
June	177.00	261.56	278.08
July	177.00	264.32	275.33
August	174.00	261.56	267.07
September	178.00	247.80	242.29
October	174.00	231.28	313.88
November	178.00	na	313.88
December	184.00	na	313.88
<b>2002</b>			
January	197.00	na	308.37
February	201.00	na	308.37
March	198.00	na	308.37
April	196.00	na	287.72
May	207.00	na	280.84
June	208.00	na	280.84
July	205.00	na	280.84
August	197.00	na	na

<sup>a</sup> Key prices from major markets (August–July years) that are used as world indicators. <sup>b</sup> Thai white rice, 100 per cent 2nd grade, fob Bangkok, nominal price quote, USDA. Prior to 1984-85 quoted from Thailand Board of Trade. <sup>c</sup> US no. 2 long grain milled. <sup>d</sup> US no.1 medium grain milled. **na** Not available.

Sources: US Department of Agriculture, *Rice Market News*, Little Rock, Arkansas; US Department of Agriculture, *Rice Outlook*; (<http://www.ers.usda.gov>); ABARE.

## Rice

### 203 Rice supply and disposal in major exporting countries <sup>a</sup>

	Area harvested million ha	Yield t/ha	Production <sup>b</sup> Mt	Domestic use Mt	Exports <sup>c</sup> Mt	Closing stocks <sup>d</sup> Mt
<b>China</b>						
1996-97	149.78	1.30	195.10	379.01	3.73	119.19
1997-98	151.33	1.33	200.70	379.57	2.71	126.50
1998-99	152.38	1.30	198.71	387.34	2.95	133.30
1999-00	154.86	1.28	198.48	398.11	1.86	143.88
2000-01	151.57	1.24	187.91	404.23	1.50	136.99
2001-02	150.31	1.20	180.00	406.91	1.75	126.61
<b>Viet Nam</b>						
1996-97	7.04	3.87	27.28	14.48	3.78	0.45
1997-98	7.38	3.92	28.93	15.27	4.56	0.50
1998-99	7.58	4.02	30.47	15.76	3.37	0.35
1999-00	7.66	4.14	31.71	16.77	3.53	1.18
2000-01	7.51	4.13	31.02	16.96	3.25	0.79
2001-02	7.55	4.14	31.26	17.10	3.20	0.43
<b>Pakistan</b>						
1996-97	2.25	2.87	6.46	2.55	1.99	0.44
1997-98	2.32	2.81	6.50	2.55	1.84	0.12
1998-99	2.42	2.89	7.01	2.60	2.03	0.36
1999-00	2.52	3.08	7.74	2.60	2.42	0.81
2000-01	2.35	3.00	7.05	2.65	1.25	0.61
2001-02	2.25	2.49	5.61	2.70	1.45	0.41
<b>Thailand</b>						
1996-97	9.27	2.23	20.70	8.59	6.37	0.71
1997-98	9.94	2.36	23.50	8.80	6.68	1.05
1998-99	9.90	2.39	23.62	8.90	6.55	1.06
1999-00	10.08	2.48	25.00	9.60	7.52	1.41
2000-01	10.05	2.55	25.61	9.99	7.25	1.55
2001-02	10.05	2.49	25.00	10.00	7.20	1.68
<b>United States</b>						
1996-97	1.14	6.86	7.78	3.24	3.17	0.87
1997-98	1.26	6.61	8.30	3.28	2.64	0.88
1998-99	1.32	6.35	8.37	3.59	2.85	0.69
1999-00	1.42	6.58	9.35	3.85	2.63	0.87
2000-01	1.23	7.04	8.66	3.82	2.80	0.73
2001-02	1.30	7.41	9.66	3.91	2.94	0.77
<b>Total <sup>cd</sup></b>						
1996-97	149.75	3.76	563.60	378.97	27.65	119.03
1997-98	151.29	3.80	574.33	379.51	24.94	126.33
1998-99	152.39	3.84	585.71	387.33	22.85	133.04
1999-00	154.97	3.92	607.91	398.60	24.79	142.92
2000-01	151.84	3.90	591.73	396.40	24.47	145.40
2001-02	151.61	3.90	590.82	410.20	25.90	132.00

<sup>a</sup> Simple aggregation of different crop years. The marketing period in each country is: United States, August–July; Thailand, August–July; China, December–November; Pakistan, October–September; Viet Nam, July–June. <sup>b</sup> Paddy. <sup>c</sup> On a calendar year basis: 1995-96 = 1996; includes intra-EU trade. <sup>d</sup> Closing stocks are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular*, Washington DC; US Department of Agriculture, *World Agricultural Production*, Washington DC; ABARE.

# 204 Summary of Australian statistics for sugar

	Area harvested '000 ha	Cane crushed kt	Sugar production <sup>a</sup> kt	No. 1 pool price \$/t	Exports (actual) <sup>b</sup> kt
1960-61	138	9 313	1 362	99.6	809
1961-62	157	9 730	1 362	98.9	857
1962-63	163	12 940	1 823	104.5	1 164
1963-64	169	12 313	1 699	120.7	1 134
1964-65	190	15 312	1 921	96.8	1 290
1965-66	204	14 382	1 924	85.7	1 273
1966-67	226	16 953	2 307	76.0	1 664
1967-68	224	17 025	2 300	83.1	1 622
1968-69	230	18 708	2 684	88.2	2 062
1969-70	213	15 784	2 146	100.3	1 386
1970-71	221	17 645	2 448	102.8	1 571
1971-72	234	19 391	2 708	111.8	2 008
1972-73	242	18 928	2 732	118.7	2 084
1973-74	226	19 278	2 449	129.9	1 781
1974-75	253	20 418	2 761	252.7	1 996
1975-76	257	21 959	2 769	232.2	2 000
1976-77	288	23 344	3 194	214.1	2 556
1977-78	295	23 493	3 240	196.4	2 478
1978-79	252	21 457	2 812	213.2	1 840
1979-80	267	21 151	2 871	281.7	2 201
1980-81	288	23 976	3 227	372.4	2 558
1981-82	316	25 094	3 329	278.9	2 498
1982-83	318	24 817	3 428	224.1	2 548
1983-84	307	24 190	3 073	262.9	2 357
1984-85	313	25 512	3 439	234.6	2 524
1985-86	304	24 414	3 275	223.3	2 799
1986-87	310	25 413	3 268	282.2	2 471
1987-88	317	25 669	3 334	289.1	2 776
1988-89	313	28 073	3 566	334.3	2 824
1989-90	332	27 622	3 681	363.4	2 799
1990-91	339	25 200	3 407	344.0	2 649
1991-92	341	21 367	3 016	303.4	2 276
1992-93	339	29 461	4 133	308.5	3 127
1993-94	340	32 008	4 234	352.5	3 456
1994-95	365	34 943	4 931	392.4	4 112
1995-96	383	37 436	4 837	378.5	3 980
1996-97	401	39 938	5 301	341.1	4 309
1997-98	420	41 064	5 567	343.0	4 552
1998-99	402	40 128	4 998	357.0	3 961
1999-00	428	39 699	5 448	257.0	4 131
2000-01	411	31 228	4 162	253.0	2 966
2001-02	417	32 260	4 610	331.6	3 594

<sup>a</sup> Raw tonnes actual. <sup>b</sup> Quantity of sugar shipped out.

Sources: ABS, *International Trade, electronic data service*, cat. no. 5464.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia*, cat. no. 7321.0, Canberra; Australian Sugar Milling Council, *Annual Review*, Brisbane; Queensland Sugar Limited, *Annual Report*, Brisbane; Rural Press Ltd, *Australian Sugar Year Book*, Brisbane; ABARE.



## 205 Australian cane and sugar production

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Area harvested for crushing	'000 ha	383	401	420	402	428	411	417
Cane yield	t/ha harvested	97.8	99.5	97.9	99.8	92.8	75.9	77.4
Cane crushed	kt	37 436	39 938	41 064	40 128	39 699	31 228	32 260
Commercial cane sugar	%	13.12	13.51	13.76	12.46	13.72	13.33	14.29
Sugar production <sup>a</sup>	kt	4 837	5 301	5 567	4 998	5 448	4 162	4 610
Sugar yield	t/ha harvested	13.0	13.7	14.0	12.2	13.0	10.1	11.1
Cane to sugar ratio		7.74	7.53	7.38	8.03	7.29	7.50	7.00

<sup>a</sup> Raw tonnes actual.

Sources: Australian Sugar Milling Council, *Annual Review*, Brisbane; Rural Press Ltd, *Australian Sugar Year Book*, Brisbane; ABARE.

## 206 Australian raw sugar acquisition and payments to millers and growers <sup>a</sup>

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Acquired for <sup>b</sup></b>								
– domestic refining	kt	856 <sup>c</sup>	992 <sup>c</sup>	1 016	1 037	1 317	1 037	na
– export	kt	3 981	4 309	4 551	3 961	4 131	3 125	na
Total acquisition	kt	4 837	5 301	5 567	4 998	5 448	4 162	4 610
Average gross returns to millers	\$/t	407.9	370.6	343.0	337.7	260.3	367.5	338.1
Total gross returns to the sugar industry	\$m	1 973	1 965	1 909	1 688	1 418	1 530	1 576
Gross value of sugarcane cut for crushing	\$m	1 169	1 186	1 248	1 058	943	683	965

<sup>a</sup> Crushing season is generally between May and December. <sup>b</sup> Raw tonnes actual. The Queensland government acquires all Queensland produced raw sugar.

<sup>c</sup> Includes sales by New South Wales mills for domestic consumption. **na** Not available.

Sources: Queensland Sugar Limited, *Annual Report*, Brisbane; Australian Sugar Milling Council, *Annual Review*, Brisbane; ABS, *Value of Principal Agricultural Commodities Produced, Australia*, cat. no. 7501.0, Canberra; ABARE.

## 207 Australian exports of sugar, by destination <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 <sup>p</sup> kt
<b>Raw sugar in bulk</b>								
Canada	584.2	667.4	715.1	684.0	616.1	530.7	482.8	477.5
China	664.5	329.0	340.3	85.0	50.0	39.0	66.3	230.0
Chinese Taipei	91.5	91.5	155.7	156.0	154.5	276.0	132.9	122.7
Egypt	120.0	62.0	165.0	173.0	88.0	0.0	0.0	0.0
Indonesia	0.0	60.2	149.0	169.9	90.0	130.3	61.3	66.6
Iran	0.0	19.5	30.4	40.0	22.0	124.0	80.0	0.0
Japan	680.0	663.6	639.2	708.0	638.2	675.4	473.6	762.6
Korea, Rep. of	673.1	570.2	680.3	798.0	695.5	815.2	557.9	569.8
Malaysia	535.1	583.0	611.5	694.0	641.9	767.6	685.5	771.1
New Zealand	155.9	187.0	131.5	182.0	203.0	198.1	176.8	245.6
Philippines	0.0	104.8	79.5	6.8	60.0	137.4	0.0	0.0
Saudi Arabia	0.0	0.0	54.8	154.0	55.0	204.0	142.9	169.3
Singapore	166.0	80.7	121.5	121.0	0.0	0.0	0.0	0.0
United States	105.0	140.0	200.0	140.0	107.7	75.0	69.5	83.2
Other countries	175.7	188.0	36.3	336.3	375.4	55.0	74.9	0.5
<b>Total</b>	<b>3 951</b>	<b>3 747</b>	<b>4 110</b>	<b>4 448</b>	<b>3 797</b>	<b>4 028</b>	<b>3 005</b>	<b>3 499</b>
<b>Raw sugar in bags</b>	<b>3.1</b>	<b>23.5</b>	<b>16.9</b>	<b>9.6</b>	<b>8.6</b>	<b>7.5</b>	<b>7.2</b>	<b>6.3</b>
<b>Refined sugar</b>	<b>157.6</b>	<b>210.8</b>	<b>182.2</b>	<b>93.7</b>	<b>155.5</b>	<b>95.8</b>	<b>113.1</b>	<b>138.5</b>
<b>Total</b>	<b>4 112</b>	<b>3 980</b>	<b>4 309</b>	<b>4 552</b>	<b>3 961</b>	<b>4 131</b>	<b>2 966.3</b>	<b>3 593.9</b>
(value, \$m)	1 629	1 552	1 546	1 706	1 289	1 092	1 111	1 392

<sup>a</sup> Amount of sugar exported in July–June period, actual quantities. <sup>p</sup> Preliminary.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Queensland Sugar Limited, *Annual Report*, Brisbane; ABARE.

# Sugar

## 208 World sugar supplies, consumption, trade and prices <sup>a</sup>

	Production Mt	Total supply Mt	Consumption Mt	Closing stocks <sup>b</sup> Mt	Trade <sup>c</sup> Mt	World price <sup>d</sup>	
						US terms	Australian terms
						US\$/lb	A\$/t <sup>e</sup>
1960-61	56.1	70.9	na	na	na	na	59.1
1961-62	52.4	69.4	na	na (24.2)	na	na	48.6
1962-63	51.3	64.8	na	na (18.5)	na	na	120.8
1963-64	54.7	64.8	na	na (20.6)	na	na	156.8
1964-65	66.8	78.0	na	na (31.7)	na	na	49.6
1965-66	63.1	81.9	na	na (30.6)	na	na	37.5
1966-67	65.6	84.8	na	na (29.2)	na	na	33.4
1967-68	97.9	87.0	na	na (31.1)	na	na	36.9
1968-69	68.4	89.0	na	na (28.3)	na	na	57.9
1969-70	74.2	93.8	na	na (29.0)	na	na	69.3
1970-71	71.0	92.0	72.8	18.8 (25.8)	na	3.3	84.7
1971-72	72.2	91.0	74.3	16.9 (22.7)	na	6.2	115.7
1972-73	75.6	92.5	76.4	16.4 (21.5)	na	8.7	143.1
1973-74	78.5	94.9	78.3	16.2 (20.7)	na	18.5	274.6
1974-75	78.0	94.2	75.9	17.7 (23.3)	na	30.3	499.5
1975-76	81.1	98.8	78.5	20.6 (26.2)	na	13.6	239.7
1976-77	86.7	107.3	81.3	25.1 (30.9)	na	8.3	162.0
1977-78	91.2	116.3	85.2	30.5 (35.8)	na	7.5	146.1
1978-79	91.0	121.5	89.3	31.7 (35.5)	na	8.2	159.9
1979-80	85.1	116.8	90.1	25.9 (28.7)	na	21.0	412.5
1980-81	88.7	114.6	89.8	25.6 (28.5)	28.6	24.7	467.8
1981-82	100.9	126.5	92.2	33.3 (36.1)	31.6	10.4	211.0
1982-83	100.6	133.9	94.4	38.7 (41.0)	29.6	7.6	184.9
1983-84	98.0	136.7	96.3	39.5 (41.0)	29.6	6.7	164.7
1984-85	100.4	139.9	98.0	42.0 (42.9)	29.2	3.7	108.6
1985-86	98.6	140.6	100.0	39.0 (39.0)	28.8	6.0	192.4
1986-87	104.2	143.2	105.9	35.8 (33.8)	28.7	6.2	203.2
1987-88	104.7	140.5	107.2	33.4 (31.1)	27.9	9.0	265.5
1988-89	104.6	138.0	107.0	31.1 (29.0)	35.2	11.6	319.1
1989-90	109.1	140.2	109.5	30.6 (28.0)	34.7	13.9	397.0
1990-91	115.7	146.3	110.4	35.0 (31.8)	34.4	9.4	264.6
1991-92	116.9	151.9	111.0	40.0 (36.0)	32.2	9.1	266.4
1992-93	112.7	152.7	111.9	39.8 (35.6)	32.6	9.5	304.8
1993-94	111.4	151.3	112.2	37.6 (33.5)	34.1	11.0	346.4
1994-95	116.1	153.8	114.7	38.2 (33.3)	35.5	13.8	411.7
1995-96	125.7	163.7	117.6	45.8 (39.1)	39.0	12.5	360.1
1996-97	124.3	169.7	121.5	46.9 (38.9)	38.6	11.6	331.6
1997-98	128.5	173.2	123.1	50.2 (40.7)	37.2	11.2	374.1
1998-99	134.7	184.9	125.4	56.8 (45.3)	44.0	7.2	252.0
1999-00	134.2	191.0	128.3	61.3 (47.9)	42.4	7.2	253.7
2000-01	131.2	192.4	131.4	60.8 (47.4)	43.8	10.0	407.2
2001-02	138.2	199.0	133.9	63.2 (47.8)	46.3	6.9	287.3

<sup>a</sup> Raw sugar equivalent; September–August years. <sup>b</sup> Figures in parentheses show closing stocks as a percentage of consumption. <sup>c</sup> Trade is defined as world gross exports including those exports made under special arrangements, such as between Comecon countries and through the Lomé Convention. Individual countries of the former Soviet Union are treated as separate trading entities from 1983-84. <sup>d</sup> Average of monthly averages of International Sugar Agreement (ISA) price; fob and stowed Caribbean ports basis, in bulk. <sup>e</sup> Australian currency equivalents of ISA price. **na** Not available.

Sources: International Sugar Organisation, *Statistical Bulletin*, London; F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances*, Ratzeburg, Germany; F.O. Licht, *International Sugar and Sweetener Report*, Ratzeburg, Germany; ABARE.

# 209

## World sugar production, by region and country <sup>a</sup>

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Beet sugar</b>								
Europe	27.26	28.67	30.40	30.51	28.83	29.22	28.55	25.45
Eastern Europe	8.56	9.79	9.64	8.25	7.71	7.17	7.09	7.06
Poland	1.49	1.72	2.44	2.29	2.24	1.96	2.19	1.67
Russian Federation	1.80	2.24	1.87	1.48	1.38	1.72	1.67	1.76
Ukraine	3.60	3.80	2.94	2.28	2.04	1.78	1.69	1.79
Western Europe	18.70	18.88	20.76	22.26	21.12	22.05	21.46	18.40
European Union <sup>b</sup>	16.53	16.97	18.00	19.04	17.54	19.18	18.20	15.96
France	4.36	4.56	4.59	5.13	4.64	4.92	4.60	4.01
Germany	3.99	4.16	4.57	4.40	4.39	4.78	4.76	4.06
Turkey	1.68	1.50	2.02	2.58	2.92	2.16	2.76	1.80
Other	0.49	0.41	0.74	0.65	0.65	0.71	0.51	0.65
United States	4.08	3.55	3.64	3.98	4.01	4.51	4.25	3.61
Other countries	3.84	4.21	3.84	4.02	4.13	3.62	3.60	4.13
<b>Total</b>	<b>35.18</b>	<b>36.43</b>	<b>37.88</b>	<b>38.51</b>	<b>36.97</b>	<b>37.36</b>	<b>36.39</b>	<b>33.19</b>
<b>Cane sugar</b>								
Africa	6.97	6.98	7.92	8.17	8.79	8.56	8.97	8.65
South Africa	1.76	1.79	2.41	2.56	2.77	2.69	2.73	2.40
Americas	32.83	35.90	37.21	38.51	42.49	44.24	40.38	44.28
Brazil	12.60	13.66	14.73	16.05	19.38	20.39	17.04	20.32
Colombia	2.07	2.15	2.14	2.13	2.24	2.39	2.26	2.50
Cuba	3.42	4.50	4.32	3.29	3.85	4.12	3.59	3.78
Guatemala	1.35	1.33	1.82	1.56	1.62	1.64	1.65	1.85
Mexico	4.65	4.69	4.82	5.49	4.99	4.99	5.24	5.14
United States	2.62	2.69	2.56	2.96	3.23	3.40	3.49	3.38
Asia	35.89	38.19	34.68	35.52	39.73	40.13	39.56	44.36
China	4.87	5.37	5.83	7.28	8.34	6.70	5.99	8.12
India	15.93	17.88	14.03	13.97	16.90	19.78	20.11	20.13
Indonesia	2.68	2.29	2.38	2.38	1.62	1.49	1.69	1.87
Pakistan	3.24	2.66	2.59	3.85	3.84	2.63	2.70	3.48
Philippines	1.71	1.85	1.89	1.87	1.68	1.68	1.87	1.96
Thailand	5.51	6.32	6.10	4.33	5.48	5.83	5.44	6.51
Oceania	5.78	5.64	6.14	6.30	5.46	5.96	4.78	5.23
Australia	5.21	5.12	5.63	5.90	5.15	5.53	4.38	4.86
<b>Total</b>	<b>81.48</b>	<b>86.71</b>	<b>85.95</b>	<b>88.52</b>	<b>96.48</b>	<b>98.90</b>	<b>93.70</b>	<b>102.52</b>
<b>Total beet and cane sugar</b>	<b>116.67</b>	<b>123.14</b>	<b>123.83</b>	<b>127.03</b>	<b>133.45</b>	<b>136.26</b>	<b>130.09</b>	<b>135.71</b>

<sup>a</sup> Raw sugar equivalent, national crop years. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries.

Source: F.O. Licht, *International Sugar and Sweetener Report*, *World Sugar Balances*, Ratzeburg, Germany.

## Sugar

### 210 World sugar trade, by country <sup>a</sup>

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
<b>Exports from major exporters</b>								
Australia	4.25	4.53	4.03	4.58	4.08	4.01	3.11	3.76
Brazil	4.99	5.50	5.92	8.05	11.25	8.83	8.98	11.28
China	0.54	0.83	0.43	0.28	0.57	0.39	0.18	0.45
Colombia	0.91	0.72	0.85	0.84	0.83	0.94	0.96	0.97
Cuba	2.78	3.80	3.62	2.57	3.12	3.44	2.93	2.68
Dominican Republic	0.30	0.31	0.35	0.27	0.19	0.18	0.19	0.18
European Union <sup>b</sup>	7.86	6.52	7.38	8.85	7.76	8.58	9.27	6.91
Fiji	0.49	0.44	0.38	0.26	0.35	0.32	0.30	0.26
Guatemala	0.90	0.92	0.90	1.28	1.13	1.17	1.43	1.30
Guyana	0.24	0.22	0.27	0.24	0.29	0.26	0.24	0.29
India	0.03	0.85	0.71	0.41	0.29	0.02	1.18	0.95
Korea, Rep. of	0.26	0.28	0.26	0.37	0.32	0.36	0.31	0.34
Mauritius	0.55	0.60	0.64	0.64	0.56	0.44	0.64	0.60
Mexico	0.19	0.58	0.79	1.16	0.60	0.44	0.61	0.67
Poland	0.00	0.00	0.51	0.47	0.47	0.42	0.43	0.10
South Africa	0.39	0.70	0.89	1.04	0.95	1.30	1.21	1.21
Swaziland	0.30	0.23	0.27	0.29	0.17	0.31	0.34	0.22
Thailand	3.73	4.85	3.81	2.62	3.20	3.90	3.66	4.63
Ukraine	1.67	1.95	1.20	0.12	0.15	0.14	0.12	0.04
United States	0.55	0.34	0.53	0.24	0.14	0.11	0.11	0.11
Other countries	4.62	4.85	4.87	2.62	7.60	6.82	7.55	9.35
Total <sup>c</sup>	35.54	39.01	38.61	37.20	44.02	42.37	43.77	46.27
<b>Imports by major importers</b>								
Algeria	0.88	0.91	0.91	0.92	0.93	0.94	1.04	0.97
Canada	1.09	1.10	1.05	1.11	1.16	1.11	1.24	1.20
China	2.91	1.94	1.10	0.41	0.54	0.64	0.89	1.28
Egypt	0.93	0.92	1.13	1.20	1.30	1.04	0.90	0.89
European Union <sup>b</sup>	4.45	4.13	4.03	4.60	4.33	4.70	5.48	5.24
Indonesia	0.51	1.22	1.50	0.69	2.29	1.67	1.43	1.76
Iran	1.08	0.94	1.32	1.14	1.01	0.99	0.99	1.19
Iraq	0.46	0.51	0.57	0.60	0.65	0.66	0.67	0.67
Israel	0.40	0.43	0.46	0.48	0.50	0.52	0.53	0.53
Japan	1.77	1.71	1.65	1.61	1.55	1.54	1.54	1.50
Korea, Rep. of	1.32	1.35	1.43	1.37	1.37	1.47	1.48	1.62
Malaysia	0.98	1.06	1.15	0.97	1.19	1.18	1.17	1.37
Morocco	0.46	0.48	0.62	0.55	0.49	0.58	0.51	0.44
Nigeria	0.43	0.60	0.63	0.90	0.83	0.82	1.02	1.02
Pakistan	0.01	0.39	0.74	0.10	0.01	0.28	1.34	0.31
Russian Federation	2.08	3.93	3.12	4.75	5.22	5.21	5.08	4.50
Saudi Arabia	0.52	0.60	0.63	0.66	0.64	0.71	0.77	0.81
Sri Lanka	0.40	0.38	0.61	0.44	0.51	0.65	0.63	0.64
Syria	0.48	0.51	0.57	0.52	0.52	0.51	0.00	0.00
Ukraine	0.10	0.31	0.14	0.14	0.32	0.26	0.44	0.29
United States	1.62	2.40	3.02	2.23	1.85	1.38	1.36	1.46
Other countries	12.15	12.83	10.88	13.89	14.16	13.12	14.43	14.17
Total <sup>c</sup>	35.01	38.63	37.26	39.28	41.37	39.99	42.95	41.84

<sup>a</sup> Includes both raw and white sugar measured in raw sugar equivalents, September–August years. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>c</sup> Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances*, Ratzeburg, Germany.

# 211 World raw sugar trade, by country <sup>a</sup>

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Exports from major exporters</b>								
Australia	4.07	4.25	3.84	4.48	4.02	3.88	3.01	3.64
Brazil	1.10	0.99	2.67	4.72	6.42	5.74	5.88	5.83
Colombia	0.57	0.54	0.46	0.39	0.51	0.60	0.66	0.64
Costa Rica	0.15	0.15	0.14	0.12	0.13	0.12	0.16	0.14
Cuba	2.78	3.80	3.62	2.57	3.12	3.43	2.92	2.52
Dominican Republic	0.30	0.31	0.36	0.27	0.19	0.18	0.19	0.15
European Union <sup>b</sup>	0.06	0.07	0.08	0.06	0.09	0.13	0.11	0.08
Fiji	0.49	0.44	0.38	0.26	0.35	0.32	0.30	0.26
Guatemala	0.57	0.63	0.77	1.06	0.94	0.97	1.34	1.16
Guyana	0.24	0.22	0.27	0.24	0.29	0.27	0.24	0.29
Jamaica	0.15	0.17	0.18	0.17	0.18	0.17	0.15	0.15
Mauritius	0.55	0.60	0.64	0.64	0.56	0.44	0.64	0.60
Mexico	0.03	0.02	0.00	0.00	0.19	0.01	0.51	0.60
Philippines	0.16	0.24	0.19	0.19	0.15	0.11	0.10	0.13
South Africa	0.33	0.60	0.82	0.85	0.94	0.81	1.01	1.04
Swaziland	0.28	0.22	0.27	0.29	0.17	0.29	0.33	0.21
Thailand	2.81	3.24	2.37	1.40	1.88	2.28	2.22	2.71
Other countries	1.41	1.74	1.49	1.89	1.55	1.78	2.04	1.80
Total <sup>c</sup>	16.07	18.22	18.57	19.62	21.67	21.52	21.82	21.93
<b>Imports by major importers</b>								
Algeria	0.26	0.28	0.28	0.28	0.28	0.29	0.31	0.29
Bulgaria	0.38	0.29	0.36	0.27	0.28	0.33	0.31	0.31
Canada	0.94	1.06	1.04	1.08	1.12	1.07	1.19	1.16
China	2.60	1.80	1.03	0.33	0.48	0.57	0.70	1.15
Egypt	0.40	0.46	0.90	0.96	1.04	0.83	0.72	0.71
European Union <sup>b</sup>	2.18	2.09	1.96	2.23	2.14	2.10	2.20	2.30
Japan	1.77	1.70	1.65	1.60	1.55	1.53	1.54	1.50
Korea, Rep. of	1.32	1.35	1.44	1.37	1.37	1.47	1.48	1.62
Malaysia	0.98	1.06	1.15	0.97	1.19	1.18	1.17	1.35
Morocco	0.46	0.48	0.62	0.55	0.49	0.58	0.51	0.44
New Zealand	0.18	0.18	0.15	0.18	0.14	0.20	0.23	0.21
Philippines	0.06	0.63	0.14	0.64	0.44	0.02	0.10	0.08
Russian Federation	0.94	1.83	1.99	4.15	5.01	5.12	4.77	4.41
Saudi Arabia	0.10	0.12	0.21	0.43	0.51	0.56	0.62	0.65
Singapore	0.18	0.18	0.19	0.21	0.17	0.18	0.13	0.24
Ukraine	0.08	0.37	0.11	0.11	0.31	0.19	0.31	0.21
United States	1.53	2.34	2.93	2.16	1.78	1.31	1.27	1.38
Other countries	3.03	3.43	3.90	3.72	4.80	5.62	6.40	5.77
Total <sup>c</sup>	17.40	19.64	20.05	21.23	23.10	23.16	23.96	23.79

<sup>a</sup> Raw sugar equivalent, September–August years. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>c</sup> Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances*, Ratzeburg, Germany.

## Sugar

### 212 World white sugar trade, by country <sup>a</sup>

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Exports from major exporters</b>								
Brazil	3.88	4.51	3.65	3.33	4.83	3.09	3.10	5.44
China	0.52	0.80	0.42	0.26	0.56	0.38	0.18	0.44
Colombia	0.34	0.18	0.39	0.45	0.39	0.34	0.31	0.33
Egypt	0.28	0.33	0.42	0.31	0.12	0.16	0.19	0.11
European Union <sup>b</sup>	7.79	6.54	7.32	8.79	7.68	8.46	9.16	6.83
Guatemala	0.33	0.25	0.28	0.22	0.20	0.15	0.09	0.14
India	0.02	0.83	0.68	0.38	0.02	0.01	1.17	0.93
Korea, Rep. of	0.26	0.28	0.25	0.36	0.32	0.36	0.31	0.34
Pakistan	0.37	0.00	0.00	0.44	0.78	0.03	0.05	0.00
Poland	0.01	0.00	0.36	0.40	0.43	0.38	0.36	0.09
Thailand	0.92	1.61	1.45	1.22	1.32	1.63	1.44	1.92
Ukraine	1.67	1.95	1.20	0.12	0.14	0.14	0.12	0.03
United States	0.55	0.43	0.52	0.23	0.14	0.10	0.10	0.10
Other countries	2.60	3.11	4.06	5.10	5.40	5.58	5.34	5.32
Total <sup>c</sup>	19.54	20.82	21.01	21.62	22.32	20.80	21.91	22.01
<b>Imports by major importers</b>								
Algeria	0.61	0.64	0.65	0.64	0.65	0.68	0.72	0.68
China	0.31	0.14	0.06	0.08	0.06	0.07	0.18	0.13
Egypt	0.53	0.46	0.23	0.24	0.26	0.21	0.18	0.18
European Union <sup>b</sup>	2.27	2.01	2.06	2.38	2.19	2.74	3.28	2.95
Hong Kong, China	0.22	0.21	0.28	0.33	0.23	0.18	0.19	0.21
India	0.99	0.28	0.05	0.89	1.02	0.55	0.00	0.00
Indonesia	0.51	1.29	1.28	0.45	1.73	1.04	0.96	1.24
Iran	0.97	0.85	1.09	0.81	0.69	0.67	0.75	0.89
Iraq	0.39	0.43	0.46	0.51	0.55	0.56	0.57	0.57
Israel	0.40	0.44	0.48	0.48	0.50	0.52	0.53	0.53
Kenya	0.27	0.26	0.12	0.21	0.08	0.07	0.15	0.15
Libya	0.21	0.23	0.24	0.30	0.29	0.27	0.26	0.26
Nigeria	0.43	0.60	0.63	0.90	0.83	0.63	0.42	0.41
Pakistan	0.17	0.21	0.71	0.10	0.00	0.28	0.97	0.27
Peru	0.24	0.31	0.18	0.54	0.36	0.28	0.29	0.14
Romania	0.18	0.16	0.19	0.23	0.16	0.13	0.19	0.22
Russian Federation	1.13	2.10	0.59	0.59	0.21	0.09	0.31	0.09
Saudi Arabia	0.42	0.49	0.45	0.23	0.13	0.14	0.15	0.16
Sri Lanka	0.40	0.42	0.61	0.50	0.51	0.65	0.63	0.64
Tunisia	0.16	0.18	0.21	0.19	0.16	0.21	0.23	0.23
Turkey	0.20	0.81	0.15	0.01	0.00	0.00	0.00	0.02
Other countries	6.59	6.45	6.46	7.40	7.61	7.59	8.03	8.09
Total <sup>c</sup>	17.59	18.96	17.19	18.00	18.21	17.57	18.98	18.06

<sup>a</sup> Raw sugar equivalent, September–August years. <sup>b</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. <sup>c</sup> Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances*, Ratzeburg, Germany.

# 213 Summary of Australian statistics for wheat <sup>a</sup>

	Area <sup>c</sup> '000 ha	Yield t/ha	Production		Exports <sup>b</sup>		Domestic use <sup>e</sup> kt	Closing stocks <sup>f</sup> kt
			Volume <sup>c</sup> kt	Unit value \$/t	Volume kt	Unit value <sup>d</sup> \$/t		
1961-62	5 958	1.13	6 727	55.3	4 843	51.0	2 066	487
1962-63	6 665	1.25	8 353	53.8	6 222	52.0	1 980	638
1963-64	6 667	1.34	8 924	52.4	6 894	52.0	2 110	558
1964-65	7 251	1.38	10 037	51.6	7 268	52.0	2 662	665
1965-66	7 088	1.00	7 067	54.5	4 755	51.0	2 525	452
1966-67	8 427	1.51	12 699	54.3	8 526	55.0	2 437	2 188
1967-68	9 082	0.83	7 547	57.7	5 644	53.0	2 682	1 409
1968-69	10 845	1.37	14 804	49.4	6 585	53.0	2 370	7 258
1969-70	9 486	1.11	10 547	50.4	8 185	49.0	2 403	7 217
1970-71	6 478	1.22	7 890	51.2	9 049	48.0	2 654	3 404
1971-72	7 138	1.19	8 510	54.4	7 760	50.0	2 703	1 451
1972-73	7 603	0.87	6 590	54.1	4 137	51.0	3 426	478
1973-74	8 948	1.34	11 987	109.4	7 418	102.0	3 165	1 882
1974-75	8 308	1.37	11 357	110.6	8 550	132.0	3 031	1 658
1975-76	8 555	1.40	11 982	104.3	8 233	122.0	2 742	2 665
1976-77	8 956	1.30	11 667	90.1	9 763	109.0	2 432	2 137
1977-78	9 955	0.94	9 370	99.8	8 098	93.0	2 629	780
1978-79	10 249	1.77	18 090	126.9	11 693	116.0	2 531	4 646
1979-80	11 153	1.45	16 188	153.1	13 197	146.0	3 369	4 268
1980-81	11 283	0.96	10 856	155.1	9 614	164.0	3 466	2 044
1981-82	11 885	1.38	16 360	158.9	11 068	158.0	2 457	4 879
1982-83	11 520	0.77	8 876	176.4	7 280	168.0	4 190	2 285
1983-84	12 930	1.70	22 016	163.8	14 159	172.0	2 641	7 501
1984-85	12 079	1.55	18 665	171.6	14 659	183.0	3 081	8 426
1985-86	11 737	1.39	16 259	165.7	16 331	185.0	2 526	5 828
1986-87	11 261	1.45	16 308	151.0	15 596	147.0	2 825	3 715
1987-88	9 062	1.36	12 368	163.0	9 864	145.0	3 479	2 740
1988-89	8 903	1.58	14 061	211.6	11 404	215.0	2 888	2 509
1989-90	9 003	1.58	14 214	195.2	10 980	213.0	2 415	3 327
1990-91	9 218	1.63	15 066	132.0	11 990	137.0	3 239	3 164
1991-92	7 183	1.47	10 557	198.6	7 122	203.0	4 095	2 504
1992-93	9 101	1.78	16 184	178.8	10 345	207.0	4 186	4 157
1993-94	8 383	1.97	16 479	174.0	13 805	175.0	3 900	2 930
1994-95	7 891	1.14	8 972	237.1	6 342	234.0	3 916	1 644
1995-96	9 221	1.79	16 504	260.8	13 298	286.8	4 109	741
1996-97	10 936	2.10	22 924	212.8	19 189	227.3	3 512	964
1997-98	10 439	1.84	19 224	197.7	15 679	241.6	4 279	230
1998-99	11 543	1.86	21 464	186.9	16 391	204.0	5 006	298
1999-00	12 168	2.03	24 758	195.1	17 784	206.0	5 357	1 915
2000-01	12 141	1.82	22 108	232.1	16 085	268.8	5 628	2 311
2001-02	11 597	2.14	24 854	232.3	16 304	278.1	5 827	5 034

**a** Crop years: up to and including 1980-81: 1 December to 30 November; 1981-82: 1 December to 30 September; 1982-83 and subsequent years: 1 October to 30 September. **b** For wheat including flour. **c** Details for establishments with an estimated value of agricultural operations (EVAO) of \$2 500 or more until 1985-86; EVAO of \$5 000 or more from 1986-87 to 1988-89; EVAO of \$20 000 or more from 1989-90 to 1990-91; EVAO of \$22 500 or more from 1991-92 to 1992-93; and EVAO of \$5 000 or more from 1993-94. **d** Export unit value based on financial year exports until 1987-88 and crop year exports thereafter. **e** Calculated as production less exports plus net change in stocks. Includes wastage. **f** Includes AWB Limited Pool and Trading Division closing stocks.

Sources: ABS, *International Trade, electronic data service*, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.



# Wheat

## 214 Australian wheat area, yield and production, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
<b>Area b</b>								
1988-89	'000 ha	2 316	950	794	3 303	1 539	1	8 903
1989-90	'000 ha	2 123	952	894	3 476	1 557	1	9 003
1990-91	'000 ha	2 166	911	1 060	3 632	1 448	1	9 218
1991-92	'000 ha	1 499	664	492	3 230	1 297	1	7 183
1992-93	'000 ha	1 800	950	800	4 000	1 550	1	9 101
1993-94	'000 ha	1 978	780	555	3 852	1 216	2	8 383
1994-95	'000 ha	1 424	822	401	3 848	1 395	1	7 891
1995-96	'000 ha	2 328	853	627	3 892	1 519	1	9 221
1996-97	'000 ha	3 192	963	980	4 264	1 535	2	10 936
1997-98	'000 ha	2 936	857	999	4 205	1 439	3	10 439
1998-99	'000 ha	3 174	949	1 139	4 515	1 762	4	11 543
1999-00	'000 ha	3 425	1 235	1 096	4 556	1 850	6	12 168
2000-01	'000 ha	3 671	1 143	885	4 460	1 976	7	12 141
2001-02	'000 ha	3 498	1 137	615	4 380	1 962	6	11 597
<b>Yield</b>								
1988-89	t/ha	1.78	1.82	2.02	1.59	0.90	2.00	1.58
1989-90	t/ha	1.61	2.06	1.59	1.38	1.67	3.00	1.58
1990-91	t/ha	1.91	1.64	1.86	1.50	1.40	2.00	1.63
1991-92	t/ha	1.46	1.73	0.70	1.47	1.65	3.00	1.47
1992-93	t/ha	2.33	2.53	0.88	1.55	1.73	4.00	1.78
1993-94	t/ha	2.57	2.59	1.00	1.74	1.74	3.00	1.97
1994-95	t/ha	0.61	1.15	0.56	1.41	1.07	2.19	1.14
1995-96	t/ha	1.94	2.25	0.83	1.75	1.79	3.86	1.79
1996-97	t/ha	2.62	2.35	2.02	1.76	1.82	4.00	2.10
1997-98	t/ha	2.01	1.75	1.39	1.84	1.87	4.00	1.84
1998-99	t/ha	2.07	1.54	1.70	1.81	1.88	4.50	1.86
1999-00	t/ha	2.51	2.14	1.74	1.98	1.40	3.33	2.03
2000-01	t/ha	2.14	2.69	1.31	1.30	2.11	3.71	1.82
2001-02	t/ha	2.36	2.47	1.51	1.81	2.50	4.50	2.14
<b>Production b</b>								
1988-89	kt	4 118	1 726	1 601	5 236	1 378	2	14 061
1989-90	kt	3 423	1 961	1 420	4 800	2 607	3	14 214
1990-91	kt	4 128	1 493	1 973	5 449	2 021	2	15 066
1991-92	kt	2 183	1 150	344	4 736	2 141	3	10 557
1992-93	kt	4 200	2 400	700	6 200	2 680	4	16 184
1993-94	kt	5 086	2 022	555	6 689	2 121	6	16 479
1994-95	kt	875	944	225	5 438	1 487	3	8 972
1995-96	kt	4 508	1 921	519	6 827	2 724	4	16 504
1996-97	kt	8 363	2 262	1 980	7 516	2 795	8	22 924
1997-98	kt	5 906	1 503	1 389	7 725	2 689	12	19 224
1998-99	kt	6 563	1 462	1 941	8 170	3 310	18	21 464
1999-00	kt	8 602	2 642	1 904	9 004	2 586	20	24 758
2000-01	kt	7 867	3 080	1 157	5 814	4 162	26	22 108
2001-02	kt	8 257	2 812	929	7 931	4 897	27	24 854

a Includes data for the Australian Capital Territory and the Northern Territory. State totals may not add to Australian totals as a result of rounding. b For 1982-83 to 1985-86, excludes establishments with an estimated value of agricultural operations (EVAO) less than \$2 500; for 1986-87 to 1988-89, excludes establishments with an EVAO less than \$5 000; for 1989-90 to 1990-91, excludes establishments with an EVAO less than \$20 000; for 1991-92 to 1992-93, excludes establishments with an EVAO less than \$22 500; from 1993-94, excludes establishments with an EVAO less than \$5 000. s ABARE estimate.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.

# 215 Australian exports of wheat and flour, by destination <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Africa</b>								
Egypt	0	739	1 665	735	1 503	1 124	955	1 680
Ethiopia	10	35	6	41	33	20	35	10
South Africa	0	412	349	161	234	239	141	98
<b>Asia</b>								
Bangladesh	73	174	231	254	372	343	252	133
China	584	2 229	156	204	165	107	60	46
India	0	0	1 632	2 189	296	173	7	0
Indonesia	1 162	1 959	2 369	2 424	1 414	2 059	2 174	2 075
Japan	1 254	1 148	1 256	1 108	1 147	1 195	1 560	1 211
Korea, Rep. of	629	703	687	768	1 212	1 181	1 139	953
Malaysia	588	798	631	671	874	800	775	681
Pakistan	72	233	1 308	1 039	1 102	1 187	0	0
Singapore	149	88	59	86	107	92	96	94
Sri Lanka	5	326	263	80	189	155	262	209
Thailand	105	243	255	315	308	251	269	282
<b>Middle East</b>								
Bahrain	13	27	67	37	21	23	44	0
Iran	524	1 879	3 349	579	1 663	1 860	2 587	2 417
Iraq	102	50	815	1 388	1 269	2 517	2 352	2 245
Kuwait	0	144	202	177	219	132	180	230
Oman	153	193	287	282	248	300	136	114
Qatar	39	40	64	36	61	22	28	0
United Arab Emirates	188	226	457	289	519	462	399	226
Yemen	0	254	633	527	644	544	507	450
<b>Oceania</b>								
Fiji	71	55	67	66	73	88	93	102
New Zealand	173	158	146	84	94	182	189	335
Papua New Guinea	125	95	119	109	131	137	136	110
<b>Total</b>	<b>7 892</b>	<b>12 056</b>	<b>18 348</b>	<b>15 245</b>	<b>16 384</b>	<b>17 274</b>	<b>16 570</b>	<b>16 406</b>
(value, \$m)	1 632	3 389	4 346	3 687	3 467	3 481	4 197	4 612

<sup>a</sup> July–June year. Exports are of wheat (including spelt, groats, meal and pellets) and meslin (mixed grain, especially rye mixed with wheat), plus plain white flour, wholemeal flour and self-raising white flour in wheat equivalent.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Wheat

### 216 Australian wheat supply and disposal <sup>a</sup>

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Opening stocks	2 930	1 644	741	964	230	298	1 915	2 311
Production	8 972	16 504	22 924	19 224	21 464	24 758	22 108	24 854
Availability	11 902	18 148	23 665	20 188	21 694	25 056	24 023	27 165
Total domestic use	3 916	4 109	3 512	4 279	5 006	5 357	5 628	5 827
Food <sup>b</sup>	1 893	1 991	2 122	2 174	2 117	2 181	2 206	2 229
Feed <sup>b</sup>	1 575	1 626	904	1 585	2 341	2 630	2 900	3 100
Seed	437	492	486	519	548	546	522	496
Exports								
Wheat	6 293	13 227	19 069	15 088	16 141	17 599	15 891	16 075
Flour <sup>c</sup>	49	72	166	147	250	185	194	229
Total	6 342	13 298	19 189	15 679	16 391	17 784	16 085	16 304
China	584	2 229	156	204	165	107	60	46
Egypt	0	739	1 665	735	1 503	1 124	955	1 680
Indonesia	1 162	1 959	2 369	2 424	1 414	2 059	2 174	2 075
Iran	524	1 879	3 349	579	1 663	1 860	2 587	2 417
Iraq	102	50	815	1 388	1 269	2 517	2 352	2 245
Japan	1 254	1 148	1 256	1 108	1 147	1 195	1 560	1 211
Closing stocks	1 644	741	964	230	298	1 915	2 311	5 034

<sup>a</sup> 1 October to 30 September. <sup>b</sup> Calculated as residual: production less exports less other domestic uses plus net change in stocks. <sup>c</sup> Wheat equivalent (conversion 1:1.29).

Sources: ABS, *International Trade, electronic data service*, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia*, cat. no. 7121.0, Canberra; ABARE.

# 217 Australian wheat prices <sup>a</sup>

	AWB Limited export quote <sup>a</sup>		Stock feed wheat <sup>b</sup>	Unit GVP
	US\$/t	A\$/t		
1965-66	na	na	56.25	54.46
1966-67	na	na	57.50	54.33
1967-68	na	na	60.81	57.69
1968-69	na	na	62.83	49.40
1969-70	na	na	63.38	50.36
1970-71	na	51.00	63.93	51.15
1971-72	na	49.00	65.40	54.36
1972-73	90.00	70.00	67.63	54.11
1973-74	195.00	132.00	71.10	109.44
1974-75	167.00	122.00	83.40	110.63
1975-76	146.00	116.00	99.32	104.26
1976-77	114.00	99.00	105.40	90.07
1977-78	118.00	105.00	111.16	99.78
1978-79	143.00	126.00	116.61	126.91
1979-80	169.00	152.00	140.50	153.08
1980-81	180.00	155.00	151.37	155.12
1981-82	165.00	149.00	149.78	158.92
1982-83	164.00	175.00	184.11	176.43
1983-84	154.00	170.00	175.24	163.79
1984-85	150.00	194.00	204.36	171.60
1985-86	133.00	190.00	144.30	165.69
1986-87	110.00	166.00	113.00	150.97
1987-88	125.00	172.00	138.92	163.00
1988-89	172.00	212.00	157.42	211.65
1989-90	168.00	218.00	169.08	195.24
1990-91	126.58	161.07	132.33	131.96
1991-92	160.33	208.77	159.67	198.64
1992-93	155.67	222.97	143.50	178.82
1993-94	153.75	223.70	137.58	173.97
1994-95	175.08	236.97	232.75	237.09
1995-96	230.42	304.56	236.24	260.82
1996-97	206.67	264.92	188.38	212.79
1997-98	167.00	246.22	185.93	197.75
1998-99	146.91	234.65	155.38	186.87
1999-00	147.52	220.72	153.63	195.14
2000-01	149.44	217.53	171.83	232.06
2001-02	160.33	312.31	211.97	232.33

<sup>a</sup> Average of daily asking prices for Australian standard white wheat fob eastern states for the relevant financial year. <sup>b</sup> Administered pricing of domestic wheat ceased after the 1988-89 season. Sydney cash price, ASW (July–June average) from 1989-90. **na** Not available.

Sources: International Grains Council, *Grain Market Report*, London; ABARE.

## Wheat

# 218

### Summary of world statistics for wheat

	Area million ha	Production Mt	Use Mt	Closing stocks a		Stocks to use ratio %	Trade c Mt	Use per person kg	Price d US\$/t
				World Mt	Exporters b Mt				
1960-61	202	241	232	82	63	35	43	77	62.00
1961-62	202	227	236	73	54	31	47	77	63.00
1962-63	206	258	248	83	55	33	43	80	64.00
1963-64	209	241	252	72	46	29	56	79	66.00
1964-65	217	276	262	86	46	33	51	81	64.00
1965-66	219	265	284	67	34	24	62	85	58.00
1966-67	219	311	286	92	35	32	56	84	66.00
1967-68	223	300	294	98	43	33	51	85	62.00
1968-69	227	332	308	122	62	40	46	87	63.00
1969-70	220	315	329	108	65	33	51	91	52.00
1970-71	210	319	342	85	51	25	54	93	60.00
1971-72	215	354	349	90	49	26	52	93	60.00
1972-73	213	348	367	71	28	19	68	96	91.00
1973-74	221	376	360	87	26	24	63	93	177.00
1974-75	223	364	368	83	30	23	63	93	164.00
1975-76	227	359	362	80	38	22	66	90	152.00
1976-77	234	425	384	121	56	32	62	93	113.00
1977-78	228	386	409	98	53	24	72	98	116.00
1978-79	230	451	429	120	56	28	72	101	141.00
1979-80	229	429	448	101	49	23	86	103	175.00
1980-81	237	445	449	97	47	22	94	101	183.00
1981-82	240	454	447	104	59	23	101	99	170.00
1982-83	239	482	465	121	70	26	96	101	160.00
1983-84	231	494	483	132	66	27	100	104	154.00
1984-85	232	518	503	147	73	29	103	105	148.00
1985-86	231	505	495	157	85	32	84	103	128.00
1986-87	229	531	529	176	83	33	90	108	110.50
1987-88	221	505	537	150	61	28	107	108	123.40
1988-89	220	500	538	116	39	22	98	106	165.75
1989-90	226	537	532	120	36	23	95	102	160.83
1990-91	230	592	562	145	55	26	92	106	117.94
1991-92	221	543	556	133	48	24	108	103	150.96
1992-93	221	562	550	145	54	26	105	101	141.33
1993-94	222	559	562	142	46	25	93	101	141.52
1994-95	216	524	547	118	34	22	92	97	156.42
1995-96	219	538	552	104	28	19	96	97	215.33
1996-97	231	582	577	167	36	29	99	99	178.50
1997-98	228	610	581	196	41	34	99	99	141.75
1998-99	225	586	584	198	53	34	99	99	119.08
1999-00	217	585	582	201	51	34	108	97	113.17
2000-01	217	582	583	200	52	34	101	95	128.50
2001-02	214	579	587	192	46	33	106	95	127.51

a Sum of individual closing stocks at the end of respective national crop years. China not included before 1983-84. b United States, European Union, Canada, Australia and Argentina. c July-June year. Excludes intra-EU trade. d For US hard red winter wheat, (Ord.), fob Gulf.

Sources: International Grains Council, *Grain Market Report*, London; International Grains Council, *World Grain Statistics*, London; ABARE.

# 219 World wheat production, by country

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Africa</b>								
Algeria	0.7	1.5	2.8	0.7	2.3	1.4	0.8	2.0
Egypt	4.1	5.7	5.7	5.8	6.0	6.3	6.6	6.3
Morocco	5.5	1.1	5.9	2.3	4.4	2.2	1.4	3.3
South Africa	1.8	2.0	2.7	2.5	1.7	1.7	2.4	2.5
<b>Americas</b>								
Argentina	11.3	8.6	15.9	14.8	11.5	15.7	16.5	15.3
Brazil	2.1	1.5	3.2	2.4	2.2	2.4	1.7	3.2
Canada	23.1	25.0	29.8	24.3	24.1	26.9	26.8	20.6
Mexico	4.2	3.5	3.4	3.6	3.2	3.1	3.3	3.2
United States	63.2	59.4	62.0	67.5	69.4	62.7	60.8	53.3
<b>Asia</b>								
China	99.3	102.2	110.6	123.3	109.7	113.9	99.7	94.0
India	59.8	65.5	62.1	69.4	65.9	70.8	76.4	68.8
Japan	0.6	0.4	0.5	0.6	0.6	0.6	0.7	0.7
Kazakhstan	9.1	6.5	8.0	8.7	4.8	11.2	9.1	12.7
Pakistan	15.2	17.0	16.9	16.7	18.7	17.9	21.1	19.1
Uzbekistan	1.4	2.4	2.7	3.1	3.6	3.7	3.6	3.2
<b>Europe</b>								
Bulgaria	3.8	3.2	1.8	3.6	3.3	3.2	3.3	3.1
European Union <sup>a</sup>	84.5	86.2	100.0	94.6	103.7	96.5	104.4	90.5
France	30.7	30.9	35.9	33.9	39.8	37.2	37.5	31.4
Germany	16.4	17.8	18.9	19.6	20.1	19.6	21.6	22.8
Italy	8.1	7.9	8.3	6.8	8.1	7.3	6.9	6.2
Spain	4.3	3.1	6.0	4.6	5.3	4.9	7.3	4.7
Sweden	1.4	1.5	2.0	2.1	2.3	1.7	2.4	2.3
United Kingdom	13.3	14.3	16.1	15.1	15.5	14.9	16.8	11.6
Former Czechoslovakia	6.0	5.8	5.4	5.5	5.6	5.2	5.3	6.4
Serbia	3.2	2.9	1.5	3.1	2.9	2.1	2.3	2.9
Hungary	4.9	4.6	3.9	5.3	4.9	2.6	3.7	5.2
Poland	7.7	8.7	8.6	8.2	9.5	9.1	8.5	9.3
Romania	6.2	7.7	3.1	6.6	4.7	4.4	4.4	7.7
Russian Federation	32.1	30.1	34.9	44.3	27.0	31.0	34.5	46.9
Ukraine	13.9	16.3	13.5	18.4	14.9	13.6	10.2	21.0
<b>Middle East</b>								
Iran	10.9	11.3	8.8	10.2	11.0	8.0	7.0	7.5
Saudi Arabia	2.7	2.0	1.2	1.8	1.8	1.8	1.8	1.8
Syria	3.7	4.2	4.1	3.0	4.1	2.6	2.7	4.5
Turkey	14.7	15.5	16.2	16.2	18.5	16.5	17.5	15.5
<b>Oceania</b>								
Australia	9.0	16.5	22.9	19.2	21.5	24.8	22.1	24.9
<b>Total <sup>b</sup></b>	<b>524.0</b>	<b>538.4</b>	<b>582.1</b>	<b>609.9</b>	<b>585.9</b>	<b>584.7</b>	<b>582.3</b>	<b>579.2</b>

<sup>a</sup> Regarded as twelve countries until 1 January 1995, then fifteen countries. Production totals for individual EU countries sourced from International Grains Council from 2000-01 onwards. <sup>b</sup> Includes some unspecified countries.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary*, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Summary of Crops, Australia*, cat. no. 7330.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC; International Grains Council, *Grain Market Report*, London; ABARE.

## Wheat

### 220 World wheat trade, by country <sup>a</sup>

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Imports</b>								
<b>Africa</b>								
Algeria	5.8	3.8	3.6	5.2	4.3	4.8	5.6	4.0
Egypt	5.9	5.9	6.9	7.1	7.5	5.9	6.1	6.5
Morocco	1.3	2.3	1.6	2.6	2.8	3.1	3.6	3.0
Nigeria	0.6	0.7	1.0	1.1	1.5	1.3	1.9	2.3
Tunisia	1.7	0.9	1.0	1.5	1.1	1.2	1.6	1.4
<b>Americas</b>								
Mexico	1.4	1.6	1.9	2.2	2.5	2.6	3.1	3.2
Brazil	6.6	5.6	5.8	6.1	7.0	7.6	7.3	6.7
Cuba	1.1	0.8	1.0	0.9	1.0	1.1	1.0	1.1
Peru	1.2	1.0	1.3	1.2	1.3	1.2	1.5	1.5
Venezuela	1.1	1.0	1.2	1.2	1.3	1.4	1.4	1.4
<b>Asia</b>								
Bangladesh	1.7	1.2	1.0	0.8	2.0	1.6	1.3	1.1
China	10.3	12.5	2.7	1.9	0.8	1.0	0.2	1.3
Chinese Taipei	0.9	1.1	1.0	1.0	1.0	1.1	1.0	1.0
India	0.0	0.1	1.4	1.7	2.2	1.4	0.1	0.1
Indonesia	3.9	3.6	4.2	3.7	3.1	3.7	4.1	4.0
Japan	6.3	6.1	6.3	6.2	6.0	6.0	5.9	5.8
Korea, Rep. of	4.3	2.6	3.5	3.9	4.7	3.8	3.1	4.0
Pakistan	2.1	1.9	3.0	4.1	3.1	2.1	0.1	0.4
Philippines	2.1	2.0	2.2	2.0	2.3	3.0	3.1	3.3
<b>Europe</b>								
European Union <sup>b</sup>	2.1	2.5	2.5	3.9	3.8	4.2	3.2	9.0
Poland	1.1	0.8	2.1	0.5	0.6	0.2	0.9	0.3
Russian Federation	2.2	5.3	2.6	3.1	2.5	5.1	1.6	0.5
Ukraine	0.2	0.2	0.1	0.1	0.1	0.5	0.7	0.1
<b>Middle East</b>								
Iran	3.6	3.0	5.6	5.2	2.3	7.2	6.3	6.0
Iraq	0.7	0.5	1.1	2.7	2.0	2.7	3.3	3.0
Turkey	0.5	2.1	2.6	1.8	1.9	1.5	0.5	1.0
Yemen	2.1	2.0	2.4	2.4	2.1	2.0	2.1	1.8
<b>Exports</b>								
<b>Americas</b>								
Argentina	7.3	4.5	10.2	11.2	8.6	11.6	11.3	10.8
Canada	20.9	16.3	19.5	20.1	14.7	19.2	17.3	16.5
United States	32.3	33.8	27.3	28.3	28.5	29.6	28.9	26.2
<b>Europe</b>								
European Union <sup>b</sup>	17.1	13.2	14.2	14.2	14.6	17.4	15.2	10.0
Hungary	1.8	2.2	1.0	1.5	2.4	0.7	1.0	2.0
Russian Federation	0.6	0.2	0.7	1.1	1.7	0.5	0.7	3.7
Ukraine	0.1	1.3	1.3	1.4	4.7	2.0	0.1	5.5
<b>ASIA</b>								
China	0.4	0.5	1.0	1.2	0.5	0.5	0.6	1.5
India	0.1	1.5	2.0	0.0	0.0	0.2	1.6	3.0
Japan	0.5	0.6	0.4	0.4	0.4	0.6	0.5	0.5
Kazakhstan	3.5	4.3	2.3	3.6	2.3	6.5	3.7	3.8
Turkey	1.8	1.1	1.0	1.3	2.6	2.2	1.6	0.5
<b>Oceania</b>								
Australia	7.9	12.1	18.3	15.2	16.4	17.3	16.6	16.4
<b>Total <sup>c</sup></b>	<b>98.2</b>	<b>99.2</b>	<b>103.3</b>	<b>104.4</b>	<b>101.3</b>	<b>114.3</b>	<b>102.8</b>	<b>106.5</b>

<sup>a</sup> Local marketing years; wheat equivalent. <sup>b</sup> Regarded as fifteen countries. Excludes intra – EU trade. <sup>c</sup> Includes some unspecified countries.  
Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database*, Washington DC.

# 221 US wheat supply and disposal <sup>a</sup>

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99 <sup>b</sup>	1999-00 <sup>b</sup>	2000-01 <sup>b</sup>	2001-02 <sup>b</sup>
Area									
– planted	million ha	28.4	27.9	30.4	28.5	26.6	25.4	25.3	24.2
– harvested	million ha	25.0	24.7	25.5	25.7	24.4	21.9	21.5	19.7
Yield	t/ha	2.53	2.41	2.43	2.63	2.84	2.86	2.83	2.71
Production	Mt	63.2	59.4	62.0	67.5	69.4	62.7	60.8	53.3
Opening stocks	Mt	15.5	13.8	10.2	12.1	19.7	25.7	25.8	23.8
Imports	Mt	2.5	1.8	2.5	2.6	2.8	2.6	2.6	2.9
Availability	Mt	81.1	75.0	74.7	82.2	91.9	91.0	89.2	80.1
Domestic use	Mt	35.0	31.0	35.4	34.2	37.6	35.4	36.3	32.9
– food	Mt	23.2	24.0	24.2	24.9	24.7	25.2	25.8	25.2
– feed	Mt	9.4	4.2	8.4	6.8	10.8	7.7	8.3	5.4
– seed	Mt	2.4	2.8	2.8	2.5	2.2	2.5	2.2	2.2
Exports	Mt	32.3	33.8	27.3	28.3	28.4	29.7	28.9	26.2
Closing stocks	Mt	13.8	10.2	12.1	19.7	25.7	25.8	23.8	21.0
– Commodity Credit Corporation	Mt	3.9	3.2	2.5	2.6	3.5	2.8	2.6	2.7
– Free	Mt	9.9	7.0	9.5	17.1	22.3	23.0	21.2	18.3
Farm price	US\$/bus	3.45	4.55	4.30	3.38	2.65	2.48	2.62	2.80
Loan rate	US\$/bus	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58
Export price <sup>c</sup>	US\$/t	156.42	215.33	178.50	141.75	119.08	113.17	128.50	127.51

<sup>a</sup> June–May year. <sup>b</sup> US Department of Agriculture estimate. <sup>c</sup> US hard red winter wheat (ordinary), fob Gulf; July–June average; for 1995-96 ABARE estimate.

Sources: US Department of Agriculture, *World Agricultural Supply and Demand Estimates*, Washington DC; US Department of Agriculture, *Agricultural Outlook*, Washington DC; US Department of Agriculture, *Wheat Yearbook*, Washington DC; ABARE.



## Wheat

### 222 Wheat export price quotations, by country and category

	Australian prime hard 14% (eastern states) US\$/t	No. 1 Canadian western red spring 12.5% (Vancouver) <sup>a</sup> US\$/t	Australian standard white (eastern states) US\$/t	US no. 2 hard red winter (Gulf) US\$/t	Argentinean bread wheat US\$/t	EU standard (Rouen) US\$/t	US no. 2 soft red winter (Gulf) US\$/t
1980-81	209.00	230.00	181.00	183.00	204.00	170.00	175.00
1981-82	185.00	201.00	165.00	170.00	178.00	150.00	148.00
1982-83	178.00	190.00	163.00	160.00	148.00	132.00	131.00
1983-84	178.00	193.00	153.83	154.00	137.00	146.00	142.00
1984-85	169.00	188.00	150.33	148.00	125.00	131.00	139.00
1985-86	159.00	180.00	132.50	128.00	102.00	111.00	125.00
1986-87	131.00	148.00	110.00	110.50	84.00	83.00	113.00
1987-88	145.00	164.00	125.11	123.40	101.00	84.00	120.00
1988-89	193.75	224.92	171.90	165.75	151.17	146.75	161.42
1989-90	183.58	193.75	167.60	160.83	138.58	142.17	152.83
1990-91	148.58	160.67	126.73	117.94	86.75	89.92	112.67
1991-92	201.50	188.42	160.25	150.96	117.67	119.00	147.08
1992-93	191.42	192.83	157.05	141.33	124.17	132.83	142.17
1993-94	240.58	222.25	153.25	141.52	117.50	95.58	133.83
1994-95	218.86	209.17	174.37	156.42	132.83	128.11	146.75
1995-96	272.03	254.83	232.39	215.33	215.92	176.92	180.17
1996-97	224.00	216.58	207.47	178.50	153.33	155.42	159.00
1997-98	203.06	197.28	167.50	141.75	134.31	133.80	130.91
1998-99	194.10	180.78	147.43	119.08	114.15	102.08	102.93
1999-00	190.17	176.33	136.44	113.17	111.17	92.75	98.83
2000-01	192.00	183.91	153.57	128.50	125.04	100.11	102.94
2001-02	185.73	166.45	157.09	127.51	116.71	110.85	116.10
<b>2001</b>							
January	196.00	186.00	164.05	136.00	122.00	114.00	111.00
February	193.38	184.57	158.95	131.25	124.50	108.00	108.25
March	191.70	188.96	157.66	131.00	121.00	108.20	106.60
April	193.38	191.12	155.56	131.75	121.50	107.00	103.50
May	197.38	197.17	157.17	136.00	129.50	114.50	102.50
June	194.20	196.07	154.39	130.00	127.00	109.60	100.40
July	196.63	195.57	152.77	127.50	123.00	112.00	109.25
August	191.20	187.65	158.25	127.00	120.60	117.75	108.40
September	187.38	185.26	160.84	126.25	118.00	116.50	109.50
October	191.38	184.29	162.93	127.25	116.50	114.50	118.50
November	190.60	183.86	163.62	129.40	108.40	116.40	120.80
December	185.88	178.03	159.11	125.25	107.50	115.33	122.25
<b>2002</b>							
January	188.13	151.16	160.29	130.00	115.33	113.50	126.25
February	183.25	149.57	156.28	127.00	111.00	110.25	115.75
March	179.46	146.16	153.24	125.80	110.60	104.20	116.60
April	176.43	142.77	149.86	125.25	121.50	104.00	115.25
May	173.32	143.72	147.73	123.62	132.88	102.80	113.83
June	185.13	149.31	161.28	135.75	115.25	103.00	116.81
July	200.28	168.51	167.05	151.20	130.13	105.75	125.15
August	212.74	183.96	188.89	165.22	137.80	113.60	134.11

<sup>a</sup> Prior to October 1994 export price quotation for no.1 Canadian western red spring wheat 13.5 per cent (Vancouver).

Sources: International Grains Council, *World Grains Statistics*, London; International Grains Council, *Grain Market Report*, London; US Department of Agriculture, *Wheat Yearbook*, Washington DC; ABARE.

# 223 Wheat supply and disposal in major exporting countries <sup>a</sup>

	Area million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports <sup>b</sup> Mt	Closing stocks Mt
<b>United States</b> (June–May)						
1996-97	25.5	2.43	62.0	35.4	27.3	12.1
1997-98	25.7	2.63	67.5	34.2	28.3	19.7
1998-99	24.4	2.84	69.4	37.6	28.5	25.7
1999-00	21.9	2.86	62.7	35.4	29.6	25.8
2000-01	21.5	2.83	60.8	36.3	28.9	23.8
2001-02	19.7	2.71	53.3	32.9	26.2	21.0
<b>Canada</b> (August–July)						
1996-97	12.3	2.43	29.8	8.2	19.5	9.0
1997-98	11.4	2.13	24.3	7.3	20.1	6.0
1998-99	10.7	2.25	24.1	8.1	14.7	7.4
1999-00	10.4	2.60	26.9	7.6	19.2	7.7
2000-01	11.0	2.45	26.8	8.3	17.3	9.5
2001-02	10.9	1.89	20.6	8.5	16.5	6.5
<b>Argentina</b> (December–November)						
1996-97	7.1	2.24	15.9	4.9	10.0	1.2
1997-98	5.7	2.60	14.8	4.8	10.7	0.8
1998-99	5.1	2.24	11.5	4.9	6.9	0.5
1999-00	5.9	2.66	15.7	4.9	10.8	0.6
2000-01	6.4	2.58	16.5	4.9	11.5	1.0
2001-02	7.1	2.15	15.3	4.8	10.5	0.5
<b>Australia</b> (October–September)						
1996-97	10.9	2.10	22.9	3.5	19.2	1.0
1997-98	10.4	1.84	19.2	4.3	15.7	0.2
1998-99	11.5	1.86	21.5	5.0	16.4	0.3
1999-00	12.2	2.03	24.8	5.4	17.8	1.9
2000-01	12.1	1.82	22.1	5.6	16.1	2.3
2001-02	11.6	2.14	24.9	5.8	16.3	5.0
<b>European Union</b> (July–June) <sup>c</sup>						
1996-97	17.0	5.89	100.0	82.8	17.9	11.0
1997-98	17.2	5.49	94.6	82.7	14.2	13.2
1998-99	17.3	5.99	103.7	88.1	14.7	18.1
1999-00	17.1	5.64	96.5	87.2	17.5	14.4
2000-01	18.0	5.78	104.4	91.2	16.0	14.6
2001-02	16.7	5.42	90.5	89.9	12.0	13.0
<b>Total</b> <sup>cd</sup>						
1996-97	72.7	3.17	230.6	134.8	90.1	35.7
1997-98	70.5	3.13	220.4	133.3	89.0	40.7
1998-99	69.1	3.33	230.2	143.7	81.1	52.8
1999-00	67.4	3.36	226.6	140.5	94.8	51.2
2000-01	69.0	3.34	230.5	146.3	89.0	51.8
2001-02	66.0	3.10	204.5	141.9	79.5	46.0

<sup>a</sup> The marketing period in each country is shown in parentheses. <sup>b</sup> Includes wheat equivalent of flour and other wheat products. <sup>c</sup> Regarded as twelve countries to 1 January 1995, then fifteen countries. Excludes intra-EU trade. EU stock figures include intervention stocks. <sup>d</sup> Simple aggregation of different crop years.

Sources: ABS, Principal Agricultural Commodities Australia, Preliminary, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia, Preliminary*, cat. no. 7121.0, Canberra; ABS, *Summary of Crops*, cat. no. 7330.0, Canberra; International Grains Council, *World Grain Statistics*, London; US Department of Agriculture, *World Agricultural Supply and Demand Estimates*, Washington DC; US Department of Agriculture, *Agricultural Outlook*, Washington DC; US Department of Agriculture, *Wheat Yearbook*, Washington DC; International Grains Council, *Grain Market Report*, London; ABARE.

## Wool

# 224 Summary of Australian statistics for wool

	Sheep numbers <sup>ab</sup> million	Wool production (greasy) <sup>c</sup>		Clean yield <sup>ac</sup> %	Closing stocks (at 30 June) <sup>d</sup>		Average price	
		Shorn kt	Total kt		'000 bales	kt	Eastern market	Auction
							indicator (clean) <sup>e</sup> c/kg	(greasy) c/kg
1965-66	157.6	682.0	754.2	58.6	na	na	na	110.4
1966-67	164.2	726.8	799.4	59.1	na	na	na	104.5
1967-68	166.9	728.0	802.6	58.3	na	na	na	92.0
1968-69	174.6	804.3	883.5	59.3	na	na	na	98.5
1969-70	174.3	837.4	925.8	58.9	na	na	na	82.8
1970-71	171.7	800.2	890.0	59.0	582.2	73.9	na	64.7
1971-72	155.4	778.6	881.7	59.1	185.4	26.0	na	75.3
1972-73	134.1	643.6	735.2	58.8	205.8	29.6	na	183.8
1973-74	139.5	644.3	700.9	60.3	176.5	26.0	361.2	181.2
1974-75	145.8	725.3	793.5	62.3	1 616.2	239.2	252.8	127.0
1975-76	144.1	681.4	754.3	62.5	1 326.7	197.4	271.8	143.3
1976-77	131.3	623.9	702.7	61.8	1 094.1	162.6	348.0	182.7
1977-78	127.5	605.5	677.0	62.3	896.6	137.7	354.7	187.1
1978-79	130.5	643.6	705.7	62.9	353.8	55.8	391.7	205.2
1979-80	132.7	642.4	708.5	62.9	208.5	33.2	462.0	243.6
1980-81	131.4	637.9	701.2	62.8	188.3	30.3	478.8	256.0
1981-82	135.0	661.0	717.2	63.0	509.3	81.5	501.9	264.7
1982-83	130.5	641.5	701.7	62.3	928.1	150.0	516.3	269.9
1983-84	135.1	672.6	729.0	63.2	1 233.9	207.0	540.3	293.8
1984-85	145.7	752.7	814.4	64.2	979.6	168.1	586.0	317.8
1985-86	150.4	762.1	829.5	64.3	924.3	159.1	594.9	342.1
1986-87	153.2	813.7	890.4	64.4	381.5	65.7	697.4	395.5
1987-88	156.5	843.0	915.4	64.9	9.2	1.5	1 117.4	632.7
1988-89	164.9	898.9	959.0	65.3	188.3	31.8	1 091.7	647.3
1989-90	173.4	1 030.9	1 102.0	65.8	3 064.7	542.0	969.2	555.3
1990-91	166.6	989.2	1 066.1	65.6	4 607.4	820.1	699.6	413.8
1991-92	151.0	801.0	873.5	65.1	4 068.8	724.3	592.6	358.8
1992-93	140.5	815.1	869.4	66.0	3 950.1	703.0	519.2	313.5
1993-94	132.6	775.8	828.0	65.8	4 184.3	740.0	547.0	330.1
1994-95	120.9	682.5	731.0	64.6	3 597.4	632.2	788.0	504.4
1995-96	121.1	654.9	697.0	64.9	3 226.4	573.6	658.1	386.7
1996-97	120.2	682.0	725.0	65.1	2 556.6	452.3	669.8	403.0
1997-98	117.5	655.1	700.0	65.1	2 173.1	383.7	733.2	444.3
1998-99	115.5	641.0	687.0	65.9	2 104.0	375.6	550.2	323.4
1999-00	118.6	620.3	671.0	65.8	1 476.4	263.4	627.0	357.3
2000-01	110.9	589.9	652.0	66.3	796.5	141.4	764.0	450.1
2001-02	103.0	555.0	607.0	64.9	429.8	76.0	841.0	526.7

a Sheep and lambs. b Before 1982, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of \$1 500 or more. Between 1982 and 1986, includes livestock holdings on establishments with an EVAO of \$2 500 or more and from 1987, an EVAO of \$5 000. c July-June years. d No official stocks of wool were held between 1951-52 and 1969-70. Australian wool held by the Australian Wool Board in 1970-71 and 1971-72, by the Australian Wool Corporation from 1972-73 to 1990-91 and by the Australian Wool Realisation Commission from 1 July 1991 to December 1993. Also includes stocks of wool held under the Price Averaging Plan in 1970-71 to 1972-73. From July 1993, includes stocks held on farms and unsold wool held in brokers' stores. e Wool International eastern market indicator from 1973-74 to 1994-95. Australian Wool Exchange eastern market indicator from 1995-96 onward. (Original market indicators for the period 1991-92 to 1993-94 can be calculated by dividing by 1.064. For the years between 1983-84 to 1990-91, divide by 1.114. For 1982-83 and earlier years, divide by 1.136). na Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat.no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Livestock, Australia*, cat. no. 7203.0, Canberra; ABS, *Livestock and Livestock Products, Australia*, cat. no. 7221.0, Canberra; National Council of Wool Selling Brokers of Australia, *Statistics*, Melbourne; Australian Wool Exchange, Melbourne; ABARE.

# 225 Australian shorn wool production, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
<b>Number of sheep shorn (million)</b>							
1991-92	65.00	34.12	17.00	39.06	20.81	4.96	181.06
1992-93	61.69	33.26	14.62	43.49	21.12	4.66	178.95
1993-94	56.21	32.54	13.47	45.56	20.03	4.92	172.84
1994-95	51.41	29.50	12.64	40.53	17.29	4.85	156.32
1995-96	48.03	27.06	10.73	38.01	18.70	4.18	146.70
1996-97	55.73	30.92	10.43	37.75	17.49	4.40	156.91
1997-98	55.33	31.50	10.96	36.00	17.15	4.43	155.45
1998-99	54.45	28.96	12.94	31.37	16.22	4.27	148.21
1999-00	52.23	29.10	10.43	32.62	15.54	4.48	144.41
2000-01	51.08	26.34	12.01	27.80	15.04	3.81	136.08
2001-02	52.10	26.80	9.50	26.70	14.40	4.10	133.60
<b>Average cut per head (kg greasy)</b>							
1991-92	4.31	4.16	4.38	4.66	4.98	3.74	4.42
1992-93	4.44	4.44	4.21	4.63	5.31	3.89	4.55
1993-94	4.49	4.22	4.28	4.60	4.95	3.88	4.49
1994-95	4.41	4.18	4.44	4.31	4.79	3.77	4.37
1995-96	4.50	4.43	4.41	4.31	5.12	4.07	4.46
1996-97	4.37	4.18	4.91	4.07	4.86	4.35	4.35
1997-98	4.15	3.85	4.36	4.27	4.91	4.03	4.21
1998-99	4.19	4.03	4.56	4.45	4.93	3.98	4.32
1999-00	4.15	3.99	4.69	4.43	4.88	4.05	4.30
2000-01	4.23	4.52	3.92	4.64	5.05	3.93	4.33
2001-02	4.09	4.20	3.77	3.99	4.91	3.89	4.15
<b>Shorn wool production (kt greasy)</b>							
1991-92	280.06	141.91	74.39	182.03	103.61	18.55	801.00
1992-93	274.05	147.60	61.50	201.20	112.12	18.12	815.05
1993-94	252.61	137.42	57.64	209.36	99.19	19.12	775.77
1994-95	226.84	123.30	56.08	174.74	82.83	18.27	682.50
1995-96	216.02	119.93	47.35	163.79	95.69	17.02	654.90
1996-97	243.33	129.18	51.20	153.78	84.97	19.14	682.00
1997-98	229.62	121.34	47.78	153.90	84.16	17.86	655.10
1998-99	228.20	116.60	59.00	139.70	79.90	17.00	641.00
1999-00	216.77	116.10	48.93	144.52	75.84	18.13	620.29
2000-01	216.00	119.00	47.00	129.00	76.00	15.00	589.86
2001-02	213.26	112.64	35.84	106.60	70.69	15.96	555.00
<b>Clean yield (%)</b>							
1991-92	66.20	67.45	63.58	62.28	62.74	70.90	65.08
1992-93	66.26	68.38	63.31	64.03	64.81	71.53	65.97
1993-94	65.97	68.71	62.61	64.22	63.27	71.10	65.76
1994-95	64.97	68.33	61.74	61.89	61.90	70.69	64.64
1995-96	64.40	68.38	na	62.21	62.55	70.88	64.86
1996-97	65.30	68.36	na	61.69	62.10	71.82	65.07
1997-98	65.18	67.49	63.70	62.79	62.64	71.69	65.05
1998-99	66.26	67.69	64.00	62.67	62.67	71.13	65.89
1999-00	65.85	66.25	64.00	63.61	63.30	71.28	65.78
2000-01	67.39	66.53	64.00	62.45	63.00	70.86	66.27
2001-02	65.71	67.44	64.00	62.00	61.70	70.60	64.89

a Includes the Northern Territory and the Australian Capital Territory. na Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Shearing and Wool Production Forecast, Australia*, cat. no. 7210.0, Canberra; ABS, *Livestock and Livestock Products, Australia*, cat. no. 7221.0, Canberra.

## Wool

### 226 Australian sheep disposal and wool production

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Sheep disposal a</b>								
Opening number b	million	120.9	121.1	120.2	115.5	115.7	118.6	110.9
Lambs marked	million	39.2	40.4	40.3	41.7	41.7	38.2	38.5
Lambs slaughtered c	million	14.3	14.2	15.1	16.7	18.8	18.8	17.6
Sheep slaughtered c	million	14.7	14.3	16.4	15.3	16.5	16.5	15.1
Live sheep exports	million	5.9	5.2	5.0	4.9	5.9	5.9	6.4
Sheep deaths	million	4.2	7.1	6.7	1.5	0.1	4.6	7.4
Closing number d	million	121.1	120.2	117.5	118.6	116.2	110.9	103.0
<b>Wool production e</b>								
Number shorn	million	146.7	156.9	155.5	144.4	139.6	136.1	133.6
Cut per head	kg	4.46	4.35	4.21	4.30	4.31	4.33	4.15
Wool production (greasy)								
– shorn	kt	654.9	682.0	655.1	620.3	602.0	589.9	555.0
– on skins	kt	42.1	43.0	44.9	50.7	50.0	62.1	52.0
– total	kt	697.0	725.0	700.0	671.0	652.0	652.0	607.0
– clean yield	%	64.9	65.1	65.1	65.8	65.8	66.3	64.9

a April–March years to 1998-99. From 1999-00, July–June year. b Sheep and lambs at 1 April on enterprises with estimated value of agricultural operations (EVAO) of \$5 000 or more. From 1999-00, numbers at 1 July. c For human consumption only, but excludes slaughterings on farms. d Sheep and lambs at 31 March on enterprises with an EVAO of \$5 000 or more. From 1999-00, numbers at 30 June. e July–June years.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary*, cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia*, cat. no. 7113.0, Canberra; ABS, *Shearing and Wool Production Forecast, Australia*, cat. no. 7210.0, Canberra; ABS, *Livestock and Livestock Products, Australia*, cat. no. 7221.0, Canberra; ABARE.

## 227 Average auction prices for greasy wool in principal exporting countries

	Australia <sup>a</sup> c/kg	New Zealand <sup>a</sup> c/kg	South Africa <sup>a</sup> c/kg
1960-61	95.64	92.05	na
1961-62	99.45	89.44	na
1962-63	108.31	97.76	na
1963-64	128.04	125.71	na
1964-65	105.45	96.15	na
1965-66	110.41	95.03	na
1966-67	104.46	80.50	na
1967-68	92.04	54.55	na
1968-69	98.48	61.90	na
1969-70	82.78	56.50	na
1970-71	64.68	53.40	56.28
1971-72	75.25	66.50	58.72
1972-73	183.77	139.26	155.87
1973-74	181.16	134.62	160.89
1974-75	126.99	90.35	101.23
1975-76	143.25	131.57	129.61
1976-77	182.73	184.23	163.37
1977-78	187.14	168.94	168.30
1978-79	205.24	202.78	187.78
1979-80	243.57	233.98	226.13
1980-81	255.97	200.73	227.16
1981-82	264.69	186.10	237.21
1982-83	269.85	191.97	237.42
1983-84	293.84	214.40	261.05
1984-85	317.80	234.26	284.08
1985-86	342.06	268.17	276.08
1986-87	395.47	336.32	331.65
1987-88	632.69	404.01	553.61
1988-89	647.26	396.31	513.24
1989-90	555.30	359.80	433.02
1990-91	413.83	243.38	297.83
1991-92	358.82	237.39	321.09
1992-93	313.53	249.44	280.83
1993-94	330.08	209.09	251.87
1994-95	504.43	314.43	392.48
1995-96	386.73	327.08	316.71
1996-97	403.01	296.41	340.42
1997-98	444.30	279.58	365.88
1998-99	323.39	231.14	250.47
1999-00	357.28	205.29	313.79
2000-01	450.09	226.88	390.75
2001-02	526.67	252.05	266.73

<sup>a</sup> Annual average prices for July–June years, converted to Australian cents using average exchange rates. <sup>b</sup> Average export unit value of greasy wool converted to Australian cents using average exchange rates. October–September years to 1993-94; July–June years from 1994-95. **na** Not available. Sources: Australian Wool Exchange, Melbourne; Federation Lanera Argentina, *Informe Mensual Estadístico*, Buenos Aires; New Zealand Wool Board, *Statistical Handbook*, Wellington; South African Wool Board, *Annual Report*, Pretoria; National Council of Wool Selling Brokers of Australia, *Statistics*, Melbourne; International Wool Textile Organisation, *Wool Statistics*, London.

## Wool

### 228 Average world prices for synthetic fibres

	US polyester price <sup>a</sup> USc/lb	Chinese Taipei polyester price <sup>bc</sup> USc/lb	Chinese Taipei acrylic price <sup>bd</sup> USc/lb
1981-82	82.00	na	75.00
1982-83	73.00	na	77.00
1983-84	78.00	na	79.00
1984-85	72.00	na	80.00
1985-86	64.00	na	82.00
1986-87	62.00	na	83.00
1987-88	70.00	53.54	82.80
1988-89	79.00	72.44	77.00
1989-90	88.00	61.22	72.65
1990-91	77.00	52.22	70.76
1991-92	73.00	na	77.00
1992-93	73.00	48.28	74.68
1993-94	72.00	55.08	68.06
1994-95	81.70	79.30	93.20
1995-96	88.00	76.00	88.00
1996-97	72.00	52.17	78.00
1997-98	69.00	42.00	70.00
1998-99	53.00	32.00	54.00
1999-00	54.00	42.00	57.00
2000-01	59.80	40.00	59.00
2001-02	60.30	34.00	54.00

<sup>a</sup> Reported average market price for 1.5 denier polyester staple for cotton blending, landed group B mill points fob producing plants. Simple averages of weekly prices. <sup>b</sup> Simple averages of monthly prices. <sup>c</sup> Chinese Taipei staple, 1.5 denier. <sup>d</sup> Chinese Taipei staple, 3 denier. **na** Not available.

Sources: Osaka Senken Ltd, *JTN Weekly*, Osaka; US Department of Agriculture, *Cotton and Wool*, Situation and Outlook Report, Washington DC.

## 229 Australian wool exports, by destination, recorded trade basis

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Volume (kt greasy equivalent)</b>								
China	176	161	197	174	170	269	324	272
Chinese Taipei	48	50	63	43	53	58	40	37
Eastern Europe <sup>a</sup>	5	5	5	7	5	4	5	5
European Union <sup>b</sup>								
France	71	54	61	61	49	39	35	25
Germany	44	42	44	47	42	29	37	22
Italy	110	107	132	141	118	136	133	108
United Kingdom	21	21	26	22	12	10	8	4
Other	19	29	31	28	22	22	24	16
Total	265	253	293	300	243	235	237	175
Japan	88	62	63	44	36	32	25	18
Korea, Rep. of	64	51	50	28	39	49	44	49
United States	37	36	27	34	17	14	12	7
Other	131	152	163	168	121	138	162	121
Total	814	772	860	799	683	800	850	683
<b>Value (\$m)</b>								
China	822	697	804	842	603	925	1 360	1 451
Chinese Taipei	196	196	231	181	154	172	147	181
Eastern Europe <sup>a</sup>	21	17	19	35	22	14	23	26
European Union <sup>b</sup>								
France	323	228	257	292	174	137	166	138
Germany	237	197	188	231	152	103	150	124
Italy	611	485	595	739	478	589	761	595
United Kingdom	92	95	109	99	44	35	35	17
Other	77	121	113	104	70	59	86	71
Total	1 339	1 126	1 261	1 465	918	922	1 197	945
Japan	542	323	330	263	158	131	118	98
Korea, Rep. of	358	256	245	151	161	225	247	275
United States	171	164	118	168	82	61	56	34
Other	640	710	727	853	480	500	728	667
Total	4 089	3 489	3 735	3 959	2 579	2 950	3 876	3 678

<sup>a</sup> Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech and Slovak Federal Republics, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Slovenia and Serbia. <sup>b</sup> Regarded as twelve countries to 1 January 1995, then fifteen countries.

Source: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



## Wool

### 230 Australian exports of semi-processed shorn wool

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
<b>Scoured</b>								
China	10.1	10.3	9.7	6.7	4.9	4.7	7.4	5.6
Chinese Taipei	1.2	1.9	3.4	3.5	2.0	2.3	0.9	0.2
France	2.2	2.2	0.9	0.5	0.8	0.9	1.1	0.4
Italy	11.2	14.0	12.4	15.6	12.4	12.6	13.0	7.5
Korea, Rep. of	6.0	6.9	5.2	3.8	5.4	6.9	6.7	6.8
Total	94.5	92.6	91.4	85.9	69.0	71.1	74.7	51.5
<b>Carbonised</b>								
China	4.6	5.1	7.5	6.0	3.9	6.6	7.2	6.7
Chinese Taipei	0.2	0.3	0.2	0.5	0.3	0.6	1.2	0.5
France	0.4	0.1	0.1	0.1	0.2	0.1	0.2	0.1
Italy	2.3	3.2	3.3	3.4	5.6	5.3	5.8	3.5
Korea, Rep. of	11.0	7.4	6.0	3.7	7.3	9.2	7.4	8.5
Total	24.6	20.4	21.5	20.2	24.5	29.8	31.3	27.1
<b>Tops and sliver</b>								
China	13.4	17.2	17.4	17.9	15.1	15.4	11.1	9.2
Chinese Taipei	3.1	2.6	2.8	2.3	2.5	2.4	0.9	0.9
France	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Italy	3.8	4.5	6.0	8.8	8.5	8.4	12.3	12.8
Korea, Rep. of	6.7	7.9	10.3	5.7	7.0	9.3	7.8	9.5
Total	42.9	51.1	57.6	54.7	53.4	52.8	52.0	46.9
<b>Noils and waste</b>								
China	0.2	0.3	0.3	0.0	0.1	0.1	0.5	0.2
Chinese Taipei	0.3	0.2	0.1	0.0	0.1	0.1	0.2	0.2
France	1.0	0.3	0.4	0.3	0.2	0.7	0.6	0.4
Italy	2.6	2.7	4.8	4.9	2.8	4.5	4.0	5.0
Korea, Rep. of	0.5	0.2	0.0	0.0	0.2	0.2	1.2	0.8
Total	7.1	6.3	8.1	7.9	5.8	6.9	7.9	7.3

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## 231 World wool production, by country and type

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	kt	kt	kt	kt	kt	kt	kt	kt
<b>Greasy</b>								
<b>Country or region</b>								
Argentina	90	81	78	68	70	63	62	60
Australia	731	697	725	700	687	671	652	607
China <sup>a</sup>	255	277	298	255	277	283	291	294
Eastern Europe <sup>b</sup>	53	47	46	45	41	34	34	34
Central Asian Republics <sup>c</sup>	152	123	102	90	80	82	81	82
New Zealand	289	269	275	266	252	257	237	246
Russian Federation	122	93	77	60	48	40	38	39
South Africa <sup>d</sup>	65	65	59	53	55	52	50	48
United Kingdom	67	66	64	65	69	63	61	48
United States	36	33	29	28	26	24	24	23
Uruguay	84	79	82	76	60	57	59	52
Other producers	417	476	512	547	576	582	586	577
World	2 663	2 544	2 543	2 419	2 379	2 340	2 303	2 239
<b>Clean</b>								
<b>Wool type</b>								
Merino	681	643	643	610	596	583	570	551
Crossbred	383	366	365	354	325	303	306	284
Other	493	480	484	479	479	490	481	481
World	1 557	1 489	1 492	1 443	1 400	1 376	1 357	1 316

<sup>a</sup> Includes Manchuria, Sinkiang and Tibet. <sup>b</sup> Albania, Bosnia and Herzegovina, Bulgaria, Czech and Slovak Federal Republics, Hungary, Serbia, Macedonia, Poland, Romania, Croatia and Slovenia. <sup>c</sup> Includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. <sup>d</sup> Excluding Lesotho and Namibia.

Sources: International Wool Textile Organisation, *Wool Statistics*, London; International Wool Textile Organisation, *International Wool Textile Overview*, London; Australian Wool Production Forecasting Committee; ABARE.

## 232 Stocks of raw wool and tops, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	57	44	27	21	20	25	22 <sup>b</sup>	18
Australia <sup>cd</sup>	740	632	573	453	384	380	345	280
New Zealand								
Brokers' carryover <sup>c</sup>	7	8	9	10	7	7	7	7
Wool Board	24	4	0	0	0	0	0	0
South Africa								
Wool Board <sup>e</sup>	0	0	0	0	0	0	0	0
United Kingdom								
Wool Marketing Board	4	4	3	2	4	5	2	3
Uruguay	0	0	0	0	10	17	10	5
Total	832	692	612	486	425	434	386	313

<sup>a</sup> Clean equivalent stocks at 30 June except Uruguay where stocks are at 30 September. <sup>b</sup> Exportable balance of clip. <sup>c</sup> Unsold wool. <sup>d</sup> Australian Wool Corporation up to 1991, Australian Wool Realisation Commission for 1992 and 1993, and Wool International thereafter. <sup>e</sup> Includes wool offered but remaining unsold, wool yet to be offered and stocks of processed wool.

Sources: Commonwealth Secretariat, *Wool Quarterly*, London; International Wool Textile Organisation, *Wool Statistics*, London; International Wool Textile Organisation, *International Wool Textile Overview*, London; National Council of Wool Selling Brokers of Australia, *Statistics*, Melbourne.

## Wool

### 233 Raw wool exports, by main producing countries <sup>a</sup>

	Australia kt	New Zealand kt	Argentina <sup>b</sup> kt	Uruguay <sup>c</sup> kt	South Africa kt	Total kt
1981-82	671	345	135	77	87	1 315
1982-83	653	378	108	91	78	1 308
1983-84	674	360	127	91	103	1 355
1984-85	750	374	115	62	100	1 401
1985-86	847	337	115	87	84	1 470
1986-87	935	364	138	101	81	1 619
1987-88	925	331	116	91	80	1 543
1988-89	872	329	85	80	83	1 448
1989-90	752	257	104	103	72	1 288
1990-91	715	254	94	107	86	1 256
1991-92	929	302	81	109	89	1 510
1992-93	867	240	81	92	66	1 346
1993-94	912	299	109	115	66	1 500
1994-95	814	291	95	68	63	1 331
1995-96	772	242	77	82	64	1 237
1996-97	860	250	83	104	20	1 316
1997-98	799	242	64	61	24	1 190
1998-99	683	211	36	59	25	1 014
1999-00	800	169	36	72	21	1 098
2000-01	850	174	36	74	21	1 155
2001-02	683	180	33	72	21	989

<sup>a</sup> Greasy equivalent. Includes raw, semiprocessed and wool on skins. For New Zealand and South Africa, does not include wool exported on skins. <sup>b</sup> October–September years to 1993-94; July–June years from 1994-95. <sup>c</sup> October–September years.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Commonwealth Secretariat, *Wool Quarterly*, London; Federation Lanera Argentina, *Informe Mensual Estadístico*, Buenos Aires; New Zealand Wool Board, *Statistical Handbook*, Wellington; International Wool Textile Organisation, *International Wool Textile Overview*, London; Secretario Uruguayo de la Lana based on Banco de la Republica Oriental del Uruguay data; Ministry of Agriculture, *Situation and Outlook for New Zealand Agriculture*, Wellington; South African Wool Board, *Statistical Review of the Wool Season*, South Africa.

### 234 Market prices for Australian wool, by category <sup>a</sup>

	1994-95 c/kg	1995-96 c/kg	1996-97 c/kg	1997-98 c/kg	1998-99 c/kg	1999-00 c/kg	2000-01 c/kg	2001-02 c/kg
19 micron	1 295.0	814.0	885.5	984.0	896.0	1 127.7	1 315.0	1 068.0
20 micron	1 058.0	700.0	763.7	842.0	683.0	754.6	784.0	850.0
21 micron	895.0	672.0	694.0	739.0	556.0	556.0	637.0	826.0
22 micron	776.0	663.0	638.4	681.0	517.0	474.6	597.0	824.0
23 micron	679.0	608.0	547.1	600.0	495.0	432.6	570.0	820.0
24 micron	664.0	580.0	521.3	581.0	486.0	423.9	554.0	815.0
25 micron	648.0	559.0	507.0	567.0	470.0	408.4	521.0	790.0
30 micron	550.0	504.0	473.4	484.0	400.0	351.4	444.0	585.0
Eastern market indicator <sup>b</sup>	788.0	658.1	669.8	733.2	550.2	627.0	764.0	841.0

<sup>a</sup> Clean basis. Micron prices are averages of the Australian Wool Exchange northern and southern region indicators from 1998-99. <sup>b</sup> Australian Wool Exchange eastern market indicator from 1995-96 onward. Wool international eastern market indicator from 1973-74 to 1994-95.

Sources: Wool International, *Wool Market Weekly*, Annual Price Summary, Melbourne; Australian Wool Exchange, *Weekly Wool Market Review*, Melbourne.

## 235 Consumption of virgin wool by the wool textile industry, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000
	kt	kt	kt	kt	kt	kt	kt
Australia	22	21	19	17	17	16	17
China	437	410	358	307	286	324	324
Chinese Taipei	21	22	26	16	7	17	17
CIS	52	8	77	49	64	67	73
European Union							
Belgium <sup>b</sup>	22	23	19	25	28	25	25
Denmark	4	4	4	4	5	4	4
France	22	17	12	13	17	6	5
Germany	56	47	35	43	43	26	21
Greece	7	6	6	4	9	9	9
Ireland	15	17	15	16	18	19	19
Italy	175	170	157	167	148	145	159
Netherlands	1	3	2	3	5	4	4
Portugal	15	15	13	16	16	17	17
Spain	24	20	15	17	19	19	19
United Kingdom	74	72	70	65	53	46	43
India	53	55	55	57	59	61	63
Japan	100	82	75	71	53	48	37
Korea, Rep. of	62	51	47	39	25	42	46
New Zealand	22	21	22	21	22	26	24
Pakistan	19	19	18	18	13	25	25
Turkey	53	68	64	61	73	61	61
United States	65	57	54	60	48	29	28
Total for above countries	1 320	1 208	1 162	1 089	1 025	1 036	1 039
Total <sup>c</sup>	1 603	1 580	1 435	1 379	1 287	1 487	1 326

<sup>a</sup> Clean basis at spinning stage. <sup>b</sup> Includes Luxembourg. <sup>c</sup> Total for 65 countries.

Sources: Commonwealth Secretariat, *Wool Statistics*, London; International Wool Textile Organisation, *Wool Statistics*, London.

## MINERALS AND ENERGY COMMODITIES



# 236 Summary of Australian statistics for bauxite and alumina

	Production		Alumina exports <sup>a</sup>		
	Bauxite kt	Alumina kt	Volume kt	Value \$m	Unit value <sup>b</sup> \$/t
1960	71	30	na	na	na
1961	16	30	na	na	na
1962	30	34	na	na	na
1963	360	47	na	na	na
1964	797	161	na	na	na
1965	1 186	202	na	na	na
1966	1 827	307	na	7	na
1967	4 244	854	na	29	na
1968	4 955	1 310	na	60	na
1969	7 921	1 931	na	72	na
1970	9 256	2 152	na	97	na
1971	12 733	2 713	2 148	115	53.5
1972	14 437	3 068	2 646	135	51.0
1973	17 596	4 089	3 507	181	51.6
1974	19 994	4 900	4 705	251	53.3
1975	21 033	5 129	4 514	344	76.2
1976	24 084	6 206	5 826	527	90.5
1977	26 086	6 659	6 119	629	102.8
1978	24 293	6 776	6 250	671	107.4
1979	27 583	7 415	6 476	775	119.7
1980	27 179	7 246	6 994	1 021	146.0
1981	25 441	7 079	6 510	1 082	166.2
1982	23 625	6 631	5 953	1 103	185.3
1983	24 372	7 231	6 378	1 185	185.8
1984	31 537	8 781	6 905	1 579	228.7
1985	31 839	8 792	7 169	1 433	199.9
1986	32 384	9 423	7 688	1 427	185.6
1987	34 008	10 109	8 301	1 545	186.1
1988	36 192	10 518	8 519	1 836	215.6
1989	38 579	10 800	8 636	2 725	315.5
1990	41 389	11 231	8 708	2 940	337.6
1991	40 504	11 713	9 275	2 490	268.5
1992	39 741	11 783	9 604	2 253	234.6
1993	41 320	12 598	9 753	2 383	244.3
1994	42 159	12 819	10 570	2 193	207.4
1995	42 655	13 161	10 727	2 504	233.4
1996	43 063	13 348	10 754	2 612	242.9
1997	44 464	13 384	10 902	2 735	250.8
1998	44 653	13 853	10 804	3 055	282.7
1999	48 416	14 532	11 130	2 879	258.6
2000	53 802	15 680	12 419	4 222	340.0
2001	53 799	16 313	12 972	4 430	341.5

<sup>a</sup> Alumina (hydrate and oxide) only. <sup>b</sup> Average export unit value. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; International Monetary Fund, *International Financial Statistics*, Washington DC; World Bureau of Metal Statistics, *World Metal Statistics*, London.

# 237 Summary of Australian statistics for aluminium

	Primary aluminium		Exports		
	Production kt	Consumption a kt	Volume b kt	Value \$m	Unit value c \$/t
1960	12	39	na	na	na
1961	13	30	na	na	na
1962	16	48	na	na	na
1963	42	49	5	2	400.0
1964	80	65	15	6	400.0
1965	88	67	22	9	409.1
1966	92	76	16	7	437.5
1967	93	82	11	5	454.5
1968	97	104	6	3	500.0
1969	126	107	21	10	476.2
1970	206	123	82	38	463.4
1971	224	138	85	35	411.8
1972	206	112	95	35	368.4
1973	207	151	57	24	421.1
1974	219	176	53	28	528.3
1975	214	138	77	46	597.4
1976	232	168	65	45	692.3
1977	248	170	78	70	897.4
1978	263	184	77	72	935.1
1979	270	198	76	86	1 131.6
1980	304	267	46	62	1 347.8
1981	379	254	79	97	1 227.8
1982	381	219	156	168	1 076.9
1983	478	245	235	333	1 417.0
1984	758	265	404	637	1 576.7
1985	851	288	564	862	1 528.4
1986	882	287	579	975	1 685.4
1987	1 004	319	711	1 423	2 001.4
1988	1 150	328	816	2 218	2 719.2
1989	1 244	324	922	2 347	2 546.4
1990	1 234	288	936	1 990	2 125.6
1991	1 235	298	954	1 771	1 857.2
1992	1 245	309	930	1 618	1 739.1
1993	1 388	338	1 056	1 822	1 725.2
1994	1 317	354	948	1 804	1 902.5
1995	1 297	343	957	2 431	2 540.7
1996	1 372	322	1 068	2 140	2 003.7
1997	1 495	352	1 156	2 527	2 186.3
1998	1 627	367	1 310	2 929	2 235.6
1999	1 718	344	1 381	2 919	2 114.2
2000	1 769	346	1 402	3 785	2 700.3
2001	1 797	317	1 489	4 233	2 842.3

a Apparent primary consumption. b Aluminium ingot metal. c Average export unit value. na Not available.

Sources: Australian Aluminium Council, *Australian Aluminium Statistical Summary*, Canberra; ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; International Monetary Fund, *International Financial Statistics*, Washington DC; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Aluminium

### 238 Australian supply, disposal and prices of alumina and aluminium

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>									
Bauxite	kt	42 309	43 308	42 989	44 483	46 444	51 046	54 560	53 949
Alumina	kt	12 940	13 326	13 252	13 581	14 207	15 037	16 098	16 417
Aluminium	kt	1 285	1 331	1 395	1 589	1 686	1 742	1 788	1 809
Secondary metal <sup>a</sup>	kt	40	85	95	101	104	104	105	na
<b>Exports</b>									
Alumina <sup>b</sup>	kt	10 315	10 984	11 011	10 536	11 059	11 654	12 721	13 091
– value	\$m	2 231	2 717	2 604	2 887	2 910	3 471	4 507	4 114
Aluminium <sup>a</sup>	kt	920	1 042	1 060	1 233	1 365	1 364	1 471	1 490
– value	\$m	2 173	2 379	2 088	2 828	2 840	3 302	4 229	3 965
<b>Imports</b>									
Alumina	kt	1.2	1.2	1.3	0.5	0.7	0.9	0.8	0.9
– value	\$m	1.7	1.9	1.4	0.8	1.3	1.2	1.4	1.7
Aluminium <sup>a</sup>	kt	5.7	12.5	6.7	3.1	5.3	5.9	6.0	6.8
– value	\$m	15.3	37.0	17.6	11.4	14.1	18.2	20.5	20.5
<b>Consumption <sup>c</sup></b>	kt	348.4	332.5	336.9	359.5	355.6	345.3	331.5	319.6
<b>Export unit values</b>									
Alumina	\$/t	216.31	247.36	236.49	274.06	263.13	297.80	354.29	314.25
Aluminium	\$/t	2 361.79	2 282.32	1 970.66	2 293.69	2 080.63	2 420.53	2 875.54	2 661.38

<sup>a</sup> Ingot metal. <sup>b</sup> Includes aluminium hydroxide. <sup>c</sup> Estimated apparent consumption (primary and secondary). <sup>na</sup> Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Australian Aluminium Council, *Australian Statistical Summary*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

### 239 Australian exports of aluminium, by destination

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt	kt
China	14.2	1.9	10.7	11.8	11.2	4.8	17.7	18.6	20.0
Chinese Taipei	152.4	125.9	116.9	152.5	167.3	192.4	228.5	227.2	151.5
Hong Kong, China	52.5	25.1	44.9	77.5	68.5	90.4	71.8	102.1	61.6
Indonesia	37.8	46.0	34.3	51.9	50.8	31.2	52.7	51.1	47.6
Japan	412.0	397.3	389.3	426.7	520.7	562.4	528.4	610.3	610.8
Korea, Rep. of	223.5	175.0	157.1	154.2	193.9	182.3	256.3	230.5	210.2
Malaysia	34.3	38.9	47.3	48.4	27.2	39.0	41.9	24.4	52.1
Philippines	8.1	13.5	11.6	11.9	13.7	12.6	14.8	10.2	5.6
Singapore	14.5	15.5	23.3	11.4	7.1	4.9	9.0	4.1	5.3
Thailand	97.0	103.7	107.3	105.8	80.4	66.4	62.6	75.0	121.4
Other countries	9.4	5.5	14.0	15.9	15.3	123.8	97.0	48.0	203.1
Total	1 055.8	948.3	956.7	1 068.2	1 156.0	1 310.1	1 380.6	1 401.6	1 489.2

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.



# 240 World production, consumption, stocks and prices for aluminium

	Production					Primary consumption	Stocks	Price b
	Bauxite	Alumina a	Aluminium		Total			
			Primary	Secondary				
	kt	kt	kt	kt	kt	kt	kt	US\$/t
1960	27 620	na	na	755	na	na	na	511.5
1961	29 279	na	na	797	na	na	na	511.5
1962	31 220	na	3 618	948	4 566	3 237	na	498.0
1963	30 456	na	3 523	1 061	4 584	3 458	na	498.9
1964	33 185	na	3 865	1 178	5 043	3 893	na	526.0
1965	37 233	na	4 253	1 311	5 564	4 322	na	540.1
1966	41 070	11 510	4 800	1 657	6 457	4 809	na	540.1
1967	45 087	13 118	5 098	1 700	6 798	5 226	na	540.1
1968	46 571	13 983	5 592	1 946	7 538	6 137	na	552.9
1969	54 475	16 175	6 160	2 256	8 416	6 088	na	588.4
1970	59 490	20 003	6 583	2 181	8 764	7 035	na	614.2
1971	66 663	22 719	7 439	2 295	9 734	7 732	na	627.9
1972	69 215	24 539	8 056	2 451	10 507	7 935	1 687	590.2
1973	75 208	21 908	8 621	2 817	11 438	8 471	1 352	599.2
1974	84 176	22 878	9 205	2 887	12 092	9 450	2 012	764.8
1975	77 380	22 093	10 129	2 542	12 671	11 350	3 129	868.4
1976	80 662	22 663	12 863	2 781	15 644	14 077	2 321	890.0
1977	84 480	25 186	14 322	3 052	17 374	14 511	2 505	1 143.8
1978	83 927	25 146	14 776	3 240	18 016	15 329	2 052	1 325.0
1979	89 131	26 034	15 175	3 316	18 491	15 981	1 513	1 602.8
1980	93 061	28 106	16 035	3 318	19 353	15 298	2 078	1 774.9
1981	88 552	26 648	15 698	3 618	19 316	14 516	3 275	1 262.8
1982	77 896	22 230	13 990	3 583	17 573	14 161	3 185	991.6
1983	78 585	23 342	14 334	3 960	18 294	15 361	2 249	1 438.3
1984	92 299	27 055	15 941	3 950	19 891	15 574	2 775	1 251.6
1985	89 609	25 543	15 555	4 022	19 577	15 858	2 444	1 042.8
1986	92 842	26 114	15 619	4 196	19 815	16 071	1 964	1 150.0
1987	96 499	28 053	16 483	4 511	20 994	17 053	1 474	1 580.0
1988	102 588	29 155	18 575	4 943	23 518	18 867	1 619	2 603.0
1989	107 584	31 537	19 135	4 943	24 078	19 253	1 634	1 953.0
1990	114 750	40 500	19 348	5 062	24 410	19 227	1 847	1 639.0
1991	114 977	40 890	19 653	5 336	24 988	18 743	2 741	1 303.5
1992	109 468	40 783	19 459	5 476	24 935	18 558	3 244	1 254.8
1993	114 124	42 978	19 715	6 058	25 773	18 134	4 497	1 139.0
1994	112 230	41 953	19 112	6 447	25 559	19 715	3 733	1 477.8
1995	118 231	43 809	19 668	6 876	26 544	20 552	2 576	1 804.5
1996	123 717	46 329	20 838	6 923	27 762	20 659	2 642	1 505.9
1997	126 136	46 679	21 798	7 487	29 285	21 795	2 258	1 598.6
1998	122 867	48 146	22 654	7 594	30 248	21 825	2 324	1 357.2
1999	129 031	49 697	23 710	8 151	31 861	23 358	2 574	1 361.0
2000	139 238	52 929	24 465	8 199	32 664	24 872	2 109	1 549.0
2001	145 598	53 980	24 541	7 724	32 265	23 546	2 561	1 443.0

<sup>a</sup> Western world production to 1989, total world production from 1990. <sup>b</sup> London Metal Exchange, 99.5 per cent purity, spot cash settlement until 1988; 99.7 per cent purity from 1989. Before 1979, UK producer price. **na** Not available.

Sources: International Monetary Fund, *International Financial Statistics*, Washington DC; Metallgesellschaft AG, *Metallstatistik*, Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Aluminium

### 241 World primary aluminium production, by region and country

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt	kt
<b>Africa</b>									
Cameroon	87	81	79	82	91	82	92	95	81
Egypt	179	182	180	179	178	187	187	189	191
Ghana	175	141	135	137	152	56	114	156	162
Nigeria	0	0	0	0	3	26	16	0	0
South Africa	176	173	233	617	683	693	687	683	654
<b>Americas</b>									
Argentina	173	175	186	184	187	187	206	262	245
Brazil	1 172	1 185	1 188	1 197	1 189	1 208	1 250	1 271	1 132
Canada	2 309	2 255	2 172	2 283	2 327	2 374	2 390	2 374	2 583
Mexico	0	0	10	62	66	62	63	61	42
Surinam	30	27	28	26	23	27	7	0	0
United States	3 695	3 299	3 375	3 577	3 603	3 713	3 779	3 668	2 637
Venezuela	568	585	627	635	641	584	567	569	572
<b>Asia</b>									
China	1 242	1 462	1 676	1 771	2 035	2 336	2 599	2 794	3 446
India	466	472	537	531	547	542	621	649	624
Japan	18	17	18	17	17	16	11	7	7
Tajikistan	252	237	230	198	189	196	229	300	324
<b>Europe</b>									
Austria	0	0	0	0	0	0	0	0	0
France	426	384	365	380	399	424	455	441	460
Germany a	552	503	575	577	572	612	634	644	652
Greece	148	138	131	131	133	146	160	163	162
Hungary	28	30	35	34	34	34	34	34	35
Iceland	94	99	100	103	123	173	222	226	243
Italy	156	176	178	184	188	187	187	190	187
Netherlands	232	219	216	227	232	264	287	302	293
Norway	888	857	847	862	919	996	1 020	1 026	1 068
Poland	47	50	56	52	52	52	52	52	45
Romania	112	120	141	141	162	174	174	181	182
Russian Federation	2 819	2 671	2 724	2 874	2 906	3 010	3 149	3 247	3 302
Slovakia	35	33	38	111	110	117	109	110	110
Slovenia	75	74	70	66	74	71	77	76	77
Spain	356	338	362	362	360	360	364	366	376
Sweden	82	84	95	98	98	96	99	100	102
Switzerland	36	24	21	27	27	32	34	36	36
Ukraine	104	102	95	91	101	107	115	119	121
United Kingdom	239	231	238	240	248	258	270	305	341
Yugoslavia	36	11	26	51	81	77	81	96	108
<b>Middle East</b>									
Bahrain	450	452	454	461	490	501	503	509	522
Iran	92	116	119	70	91	111	138	140	145
Turkey	59	60	62	62	62	62	62	62	62
United Arab Emirates	242	246	247	259	378	387	441	536	536
<b>Oceania</b>									
Australia	1 388	1 317	1 297	1 372	1 495	1 627	1 718	1 769	1 797
New Zealand	277	269	273	285	310	318	327	328	322
<b>Total</b>	<b>19 715</b>	<b>19 112</b>	<b>19 668</b>	<b>20 838</b>	<b>21 798</b>	<b>22 654</b>	<b>23 710</b>	<b>24 465</b>	<b>24 541</b>

a Unified Germany from 1992.

Sources: ABARE, Australian Mineral Statistics, Canberra; World Bureau of Metal Statistics, World Metal Statistics, London.

# 242 World primary aluminium consumption, by region and country

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Africa</b>									
Cameroon	19	17	21	19	25	25	22	25	24
Egypt	80	80	77	79	98	92	83	82	97
Ghana	15	16	16	16	16	16	16	16	16
South Africa	90	123	120	101	124	143	125	186	198
Other Africa	19	11	20	27	18	24	24	27	27
<b>Total</b>	<b>223</b>	<b>246</b>	<b>254</b>	<b>242</b>	<b>282</b>	<b>300</b>	<b>270</b>	<b>336</b>	<b>361</b>
<b>Americas</b>									
Argentina	95	106	84	86	95	115	86	82	70
Brazil	379	414	501	497	479	521	463	514	553
Canada	493	565	612	620	644	721	777	799	760
Mexico	97	81	40	93	83	92	88	88	88
United States	4 877	5 407	5 055	5 348	5 390	5 814	6 203	6 080	5 117
Venezuela	155	152	183	207	193	180	122	183	165
Other Americas	54	58	59	52	93	74	65	87	85
<b>Total</b>	<b>6 149</b>	<b>6 783</b>	<b>6 533</b>	<b>6 904</b>	<b>6 962</b>	<b>7 516</b>	<b>7 804</b>	<b>7 831</b>	<b>6 836</b>
<b>Asia</b>									
China a	1 340	1 500	1 942	2 135	2 260	2 425	2 926	3 499	3 567
Chinese Taipei	299	355	363	310	374	301	464	502	321
Hong Kong, China	45	42	42	42	42	42	48	50	50
India	475	475	581	585	553	567	570	602	589
Indonesia	139	179	177	161	203	75	139	146	163
Japan	2 138	2 345	2 336	2 393	2 434	2 080	2 112	2 225	2 014
Korea, Rep. of	525	604	675	674	666	506	814	823	850
Malaysia	82	66	114	115	148	90	131	115	92
Philippines	23	30	31	26	34	24	34	33	25
Singapore	22	30	40	40	15	43	4	15	48
Thailand	180	183	254	220	233	129	156	195	227
Other Asia	79	73	105	116	153	116	112	129	129
<b>Total</b>	<b>5 347</b>	<b>5 883</b>	<b>6 659</b>	<b>6 818</b>	<b>7 117</b>	<b>6 398</b>	<b>7 507</b>	<b>8 333</b>	<b>8 054</b>
<b>Europe</b>									
Austria	140	145	150	155	162	163	143	168	201
Belgium	275	329	336	331	345	370	350	341	327
Croatia	14	25	24	21	22	24	30	28	38
Czech Republic	39	40	59	53	63	79	66	78	88
Denmark	23	26	28	27	36	39	39	41	44
Finland	22	19	31	30	33	33	37	39	37
France	667	736	744	672	724	734	774	780	774
Germany	1 151	1 373	1 491	1 355	1 558	1 519	1 439	1 490	1 552
Greece	105	143	163	156	204	213	213	205	210
Hungary	140	128	121	159	183	164	171	210	223
Italy	554	660	665	585	671	674	735	780	756
Netherlands	140	145	150	145	155	155	155	155	155
Norway	202	212	157	169	197	160	231	253	253
Poland	68	74	74	76	102	108	133	150	139
Portugal	52	64	67	58	69	68	82	78	67
Romania	40	20	46	36	63	80	98	128	113
Russian Federation	657	476	476	444	469	489	563	748	786
Slovakia	24	25	25	25	25	22	25	36	39
Slovenia	48	54	53	47	53	75	62	81	116
Spain	310	352	350	360	430	136	494	526	508

Continued

## Aluminium

### 242 World primary aluminium consumption, by region and country *(continued)*

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
Europe (continued)									
Sweden	93	131	116	129	142	177	133	147	119
Switzerland	131	155	148	140	144	166	157	165	161
Ukraine	100	34	50	51	60	50	50	50	50
United Kingdom	540	570	620	571	583	579	497	576	433
Yugoslavia	38	11	26	17	24	19	16	16	19
Total	5 618	5 995	6 215	5 836	6 520	6 359	6 778	7 360	7 347
Middle East									
Bahrain	115	133	199	200	270	251	226	239	261
Iran	110	105	118	105	117	103	123	117	117
Saudi Arabia	25	30	30	25	25	25	25	25	25
Turkey	160	115	144	136	161	181	169	211	176
Total	410	383	491	466	572	634	618	672	658
Oceania									
Australia	338	354	343	322	352	367	344	346	317
New Zealand	27	40	39	39	37	34	43	42	41
Total	366	394	382	361	389	401	387	388	357
<b>Total</b>	<b>18 134</b>	<b>19 715</b>	<b>20 552</b>	<b>20 659</b>	<b>21 795</b>	<b>21 825</b>	<b>23 358</b>	<b>24 872</b>	<b>23 546</b>

<sup>a</sup> Excludes Hong Kong.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Aluminium

### 243 World aluminium trade, by country <sup>a</sup>

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports</b>									
Argentina	73.0	61.0	95.2	93.9	113.5	82.0	109.8	187.0	166.0
Australia	1 055.8	948.3	956.7	1 068.2	1 156.0	1 310.1	1 380.6	1 401.6	1 489.2
Austria	56.5	68.1	74.7	75.4	67.3	87.3	88.0	91.8	102.2
Bahrain	272.6	308.4	387.0	327.5	220.5	249.3	204.9	274.9	261.1
Belgium	87.9	107.3	120.8	62.3	75.2	111.1	66.7	61.6	184.4
Brazil	799.6	777.8	703.0	709.0	716.2	692.4	788.6	760.0	587.9
Cameroon	68.4	63.2	58.8	65.0	65.6	57.4	70.7	69.8	56.8
Canada	1 819.8	1 877.5	1 718.9	1 820.4	1 884.6	1 856.4	1 862.6	1 837.3	2 046.1
Chinese Taipei	96.5	104.3	82.3	126.0	137.8	148.9	94.4	103.1	96.1
Denmark	19.1	17.4	23.8	20.7	29.6	28.8	25.7	23.3	26.1
Egypt	30.0	80.7	81.9	108.2	89.4	86.1	109.7	114.4	95.1
Finland	33.1	27.8	29.5	29.9	33.6	37.1	39.6	38.9	33.7
France	237.6	212.0	204.6	230.7	166.6	139.8	153.3	157.4	151.0
Germany	243.8	271.9	262.8	260.3	229.6	236.7	300.3	374.8	366.7
Ghana	112.1	153.9	111.3	120.9	119.0	na	na	na	na
Greece	72.8	54.2	50.2	44.5	46.7	58.5	60.8	94.5	15.8
Hong Kong, China	84.0	106.3	253.3	316.3	252.7	249.6	215.0	193.0	134.4
Hungary	na	na	48.6	20.4	19.2	21.7	12.7	12.2	10.9
Iceland	91.8	100.6	99.7	101.1	119.8	162.1	221.4	209.7	258.0
India	81.8	135.1	39.9	94.7	80.4	na	100.3	91.4	101.5
Indonesia	130.7	143.5	188.0	180.3	166.2	148.1	79.9	172.2	149.6
Ireland	1.9	3.9	5.9	0.0	0.3	0.3	na	na	na
Italy	34.4	24.8	36.6	39.4	37.3	35.7	29.6	33.8	31.5
Japan	8.6	11.7	12.8	12.0	10.3	7.1	10.5	10.0	12.6
Korea, Rep. of	20.3	59.4	90.8	43.0	97.3	70.4	31.8	11.8	8.0
Mexico	0.7	0.3	1.1	2.8	0.4	0.8	3.0	10.3	na
Netherlands	401.2	443.9	576.8	483.8	472.6	468.7	480.5	450.5	470.0
New Zealand	242.9	232.3	246.2	258.2	283.2	294.0	287.2	296.1	293.5
Norway	788.2	866.7	810.6	875.7	915.3	989.1	988.0	1 041.8	1 187.6
Russian Federation	1 548.8	2 293.6	2 420.1	2 618.4	2 711.6	2 794.4	3 115.7	3 190.9	2 977.8
Singapore	77.7	90.1	120.0	139.4	92.0	58.4	77.8	75.0	88.8
South Africa	86.0	56.9	90.0	541.4	566.8	557.0	630.6	504.4	461.0
Spain	194.3	146.1	114.5	137.3	130.7	107.7	80.4	82.1	92.2
Surinam	28.7	25.2	26.3	26.6	27.5	26.8	6.8	na	na
Sweden	53.0	55.2	56.9	70.7	70.1	47.6	64.8	53.3	66.2
Switzerland	5.7	7.6	7.5	8.5	8.9	8.4	11.6	15.7	5.5
Tajikistan	270.8	204.5	202.0	193.7	182.9	186.6	224.3	288.0	287.0
United Arab Emirates	242.6	254.8	247.0	264.2	378.5	372.0	441.2	482.2	na
United Kingdom	128.9	220.1	313.9	205.3	372.9	225.8	233.6	347.7	263.3
United States	437.8	387.3	448.2	446.6	374.0	373.4	425.0	451.4	339.3
Venezuela	415.4	462.0	382.1	439.8	414.5	410.3	445.8	419.4	398.0
Yugoslavia	39.8	72.2	na	39.1	61.0	61.4	69.5	92.5	95.8
<b>Total</b>	<b>10 483.5</b>	<b>11 536.4</b>	<b>11 799.0</b>	<b>13 050.2</b>	<b>13 607.7</b>	<b>13 693.9</b>	<b>14 680.5</b>	<b>14 910.6</b>	<b>14 534.1</b>

Continued

## Aluminium

### 243 World aluminium trade, by country <sup>a</sup> (continued)

	1993 kt	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Imports</b>									
Argentina	0.8	0.7	1.3	1.2	na	na	na	na	na
Australia	4.7	3.6	6.9	13.1	4.2	5.9	5.6	6.0	7.6
Austria	178.8	299.0	159.6	195.5	243.1	253.2	223.7	251.5	293.0
Belgium	310.9	370.4	365.9	351.5	388.3	496.7	413.2	431.9	599.8
Brazil	6.5	7.3	15.6	8.6	5.7	5.8	2.1	2.3	8.7
Canada	108.6	146.1	133.9	139.5	153.9	201.9	246.5	276.3	223.0
China	165.7	168.9	390.3	367.1	288.9	307.0	534.0	914.1	529.6
Chinese Taipei	395.6	459.5	429.2	436.3	512.1	449.6	558.5	604.7	417.4
Denmark	21.2	29.5	35.4	33.6	41.0	45.6	43.6	45.4	48.7
Finland	25.5	38.8	22.9	33.0	33.5	37.8	43.2	52.0	50.5
France	372.2	444.8	469.3	438.9	419.2	403.3	464.7	527.8	506.9
Germany	852.6	1 197.3	1 315.5	1 108.8	1 400.2	1 471.9	1 333.2	1 586.2	1 602.0
Greece	19.3	57.7	70.9	71.4	119.5	125.8	113.2	135.6	122.4
Hong Kong, China	129.1	147.9	362.1	465.6	479.5	401.3	262.4	242.8	162.9
Hungary	na	129.7	134.3	142.7	170.2	157.0	154.1	193.0	203.3
India	30.7	70.6	96.3	116.3	86.4	87.8	49.4	44.7	66.6
Ireland	10.3	10.1	5.4	4.0	11.1	13.5	16.4	12.2	11.5
Italy	435.8	577.6	574.5	484.9	575.1	608.0	652.8	704.8	670.2
Japan	2 604.4	2 639.1	2 802.7	2 762.0	3 027.5	2 551.8	2 657.4	2 905.2	2 611.6
Korea, Rep. of	579.3	689.3	783.4	728.7	771.3	584.1	880.4	889.7	880.6
Mexico	99.0	59.3	31.4	34.2	16.6	30.9	27.7	na	na
Netherlands	376.6	458.5	622.3	464.3	528.4	522.9	584.1	615.6	520.6
New Zealand	4.6	7.8	11.7	12.3	10.0	10.8	12.8	9.7	5.7
Norway	102.7	198.7	152.3	149.5	196.3	147.9	186.0	252.5	224.1
Portugal	54.9	67.8	73.0	67.7	79.8	109.2	159.7	194.9	175.0
Singapore	110.0	120.5	198.7	99.3	102.6	82.1	76.7	81.0	229.9
South Africa	0.1	2.1	0.7	1.7	3.8	7.3	6.0	8.2	5.4
Spain	95.6	116.5	125.8	127.6	188.3	177.0	220.7	231.0	216.1
Sweden	64.1	157.4	89.4	105.5	125.3	138.5	104.6	109.1	97.2
Switzerland	91.0	137.5	130.8	117.4	143.6	141.2	123.6	136.3	130.5
Thailand	181.6	184.6	254.2	220.8	238.1	195.0	159.6	356.1	232.2
Turkey	42.4	67.5	84.6	99.3	138.9	143.2	132.8	169.6	125.5
United Kingdom	589.1	477.0	388.1	651.4	436.9	495.9	444.0	277.1	346.9
United States	1 860.7	2 495.9	1 979.8	1 951.0	2 097.2	2 484.6	2 835.9	2 687.6	2 677.1
Yugoslavia	4.2	6.1	0.0	1.3	4.1	3.9	1.7	3.0	4.2
<b>Total</b>	<b>9 928.6</b>	<b>12 045.0</b>	<b>12 318.2</b>	<b>12 194.2</b>	<b>13 350.3</b>	<b>13 159.5</b>	<b>14 133.5</b>	<b>15 493.3</b>	<b>14 452.9</b>

<sup>a</sup> Covers principal imports and exports of aluminium and aluminium alloys. **na** Not available or not applicable.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

# 244 Australian exports of clays, by destination <sup>a</sup>

	Japan	New Zealand	United Kingdom	Other	Total	
	t	t	t	t	Volume t	Value \$'000
1960	na	976	na	na	1 024	42
1961	na	759	na	na	840	36
1962	na	775	na	na	874	26
1963	na	634	na	na	801	36
1964	na	2 193	na	na	2 756	77
1965	na	552	na	na	2 560	56
1966	na	714	na	na	3 514	120
1967	na	650	na	na	4 890	223
1968	na	657	na	na	4 544	224
1969	na	614	na	na	6 145	182
1970	2 894	973	2 433	1 004	7 304	324
1971	2 271	681	2 827	598	6 377	299
1972	1 554	703	1 998	489	4 744	211
1973	2 038	1 011	3 249	332	6 630	286
1974	1 198	895	3 953	201	6 247	278
1975	1 732	175	4 816	126	6 849	294
1976	1 500	101	3 025	326	4 952	228
1977	2 115	462	5 400	1 950	9 927	679
1978	1 609	600	5 001	6 198	13 408	1 054
1979	1 939	1 175	2 597	381	6 092	525
1980	735	125	1 206	327	2 393	281
1981	1 539	313	596	577	3 025	364
1982	1 364	463	1 376	2 133	5 336	983
1983	927	365	1 601	5 025	7 918	1 041
1984	2 878	829	2 234	11 074	17 015	1 683
1985	1 549	719	1 877	4 259	8 404	1 021
1986	9 670	1 241	2 106	4 428	17 445	1 980
1987	14 990	3 908	1 059	11 401	31 358	4 743
1988	40 983	9 003	1 965	16 133	68 084	10 480
1988-89	71 466	10 044	1 808	27 281	110 599	16 315
1989-90	94 507	6 779	2 303	39 601	143 190	19 953
1990-91	119 979	7 528	1 175	32 203	160 885	24 557
1991-92	97 614	5 260	135	46 424	149 433	23 408
1992-93	115 735	5 009	100	43 774	164 618	28 090
1993-94	122 866	5 495	0	43 209	171 570	30 926
1994-95	85 853	4 987	844	60 509	152 193	24 656
1995-96	103 848	5 226	1 224	68 504	178 802	33 523
1996-97	52 775	5 671	43	47 208	105 697	20 801
1997-98	1 194	2 939	796	14 234	19 163	4 834
1998-99	4 886	6 237	2 320	30 059	43 502	10 570
1999-00	4 039	11 760	3 474	60 069	79 342	10 203
2000-01	6 152	4 768	266	21 539	32 725	7 924
2001-02	31 119	7 963	332	100 828	140 242	11 109

<sup>a</sup> Excludes activated clays. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; ABARE.

## Clays

### 245 Australian imports of clays

	Bentonite a		Kaolin b		Refractory clays c		Other clays d	
	t	\$'000	t	\$'000	t	\$'000	t	\$'000
1960	7 387	255	9 902	214	1 065	70	6 537	213
1961	7 006	239	15 789	278	298	23	5 684	232
1962	9 353	357	15 131	280	1 491	47	6 321	303
1963	10 938	492	24 589	448	1 649	65	5 960	250
1964	14 286	569	25 089	496	4 380	171	9 578	354
1965	16 312	644	26 128	517	3 524	182	14 793	271
1966	15 346	494	31 991	686	3 705	148	9 939	406
1967	21 263	615	37 908	878	2 391	101	14 270	519
1968	44 513	984	44 603	1 030	5 071	173	12 578	548
1969	54 597	1 134	43 606	1 075	4 825	112	13 177	590
1970	66 484	1 474	56 571	1 458	7 720	285	20 245	686
1971	88 803	1 887	42 579	1 268	10 565	267	12 178	726
1972	49 861	1 540	33 314	991	5 949	174	12 442	504
1973	57 965	1 390	38 344	1 130	2 154	70	16 920	665
1974	85 363	1 649	37 535	1 028	4 880	106	25 616	1 207
1975	54 736	1 142	5 572	387	16 139	561	26 654	1 286
1976	22 204	708	8 620	426	5 054	231	25 711	1 679
1977	13 191	558	7 488	521	6 665	367	29 342	2 051
1978	30 355	1 375	11 773	750	3 652	350	57 957	3 872
1979	57 241	2 028	6 751	537	2 610	198	45 635	3 842
1980	55 917	2 424	3 624	404	15 119	1 125	25 097	2 505
1981	43 034	1 828	11 737	1 113	16 564	1 431	36 658	2 720
1982	32 571	2 067	15 668	1 780	10 874	1 141	8 649	1 836
1983	17 767	1 611	9 829	1 663	3 327	461	9 261	1 373
1984	24 419	2 617	7 652	1 580	13 408	1 485	16 216	2 606
1985	30 531	3 474	2 586	870	904	209	29 166	5 412
1986	24 942	2 643	4 785	2 892	2 719	431	21 776	4 400
1987	8 654	1 822	12 641	6 002	17 367	2 079	14 021	3 773
1988	22 269	3 530	12 487	3 113	17 324	2 253	5 217	1 946
1988-89	21 344	2 553	17 174	3 927	30 795	3 793	9 441	4 410
1989-90	28 476	4 427	11 896	3 204	10 953	1 653	24 462	5 070
1990-91	28 348	3 858	11 331	3 172	4 979	813	18 574	4 146
1991-92	12 529	2 596	7 119	3 413	13 752	1 834	8 330	2 950
1992-93	21 004	4 078	11 965	6 104	1 442	371	10 569	3 806
1993-94	16 227	3 537	12 476	4 774	2 016	464	6 875	3 155
1994-95	29 151	3 290	17 686	7 450	6 038	1 717	26 312	5 524
1995-96	4 202	2 864	17 167	5 284	5 192	927	44 704	8 194
1996-97	9 633	2 481	19 535	6 919	1 910	473	23 648	5 340
1997-98	8 998	2 363	7 507	3 997	3 051	642	14 739	3 884
1998-99	7 035	3 179	13 525	8 510	1 539	443	19 873	6 553
1999-00	15 291	4 353	9 410	6 235	3 414	819	19 988	6 875
2000-01	25 611	5 524	11 629	9 321	8 985	1 559	23 333	9 563
2001-02	28 900	6 636	10 239	9 113	2 794	754	19 963	8 068

a Includes bentonitic clay. b Includes ball and china clay. c Includes fireclay and chamotte. d Includes andalusite, mullite, kyanite, sillimanite and other clays.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABARE.



# 246 Summary of Australian statistics for black coal

	Production		Domestic consumption Mt	Exports		Closing stocks b Mt
	Raw Mt	Net a Mt		Volume Mt	Unit value \$/t	
1960-61	23.67	22.15	20.05	1.93	8.01	na
1961-62	25.37	23.48	20.14	3.51	7.77	na
1962-63	25.25	23.40	20.26	2.71	8.21	na
1963-64	27.86	25.49	21.32	3.86	8.39	na
1964-65	30.11	27.54	22.02	5.94	8.31	na
1965-66	34.23	31.22	22.85	8.87	8.12	na
1966-67	35.95	32.29	23.15	8.04	8.03	na
1967-68	39.06	34.71	24.04	10.48	8.21	na
1968-69	44.86	39.81	24.71	14.41	8.33	na
1969-70	50.41	44.30	25.57	17.97	9.32	na
1970-71	52.97	45.00	24.96	18.96	10.50	7.59
1971-72	58.86	49.02	25.49	21.85	10.89	9.27
1972-73	66.19	54.63	27.39	25.83	11.28	10.68
1973-74	66.58	54.74	27.68	28.39	12.50	9.35
1974-75	72.21	63.78	30.19	32.42	22.10	10.52
1975-76	77.13	62.33	29.45	30.43	34.96	12.97
1976-77	85.96	69.55	32.19	35.37	37.23	14.95
1977-78	87.79	71.01	32.56	37.91	39.14	15.50
1978-79	91.90	73.37	33.43	38.28	38.99	17.17
1979-80	90.20	73.59	35.62	43.16	39.35	11.97
1980-81	106.20	87.39	37.71	47.25	41.64	14.22
1981-82	110.20	91.08	36.79	46.12	49.64	21.34
1982-83	120.34	99.59	37.29	54.65	56.21	28.02
1983-84	129.44	105.55	38.64	64.33	51.77	27.98
1984-85	145.14	118.26	40.67	86.10	54.09	21.95
1985-86	163.62	134.31	42.56	90.30	57.49	23.93
1986-87	182.43	148.73	44.07	97.70	55.46	32.71
1987-88	167.69	136.35	46.01	102.10	46.61	20.59
1988-89	184.05	149.35	49.87	97.66	48.04	20.91
1989-90	196.85	160.41	50.68	104.58	55.74	27.37
1990-91	204.68	166.56	50.92	113.37	56.08	29.10
1991-92	218.20	176.47	52.81	123.30	55.38	29.61
1992-93	222.50	177.99	52.94	129.18	58.28	26.23
1993-94	221.50	177.98	54.18	129.06	55.49	21.81
1994-95	237.23	192.35	55.36	136.24	50.45	23.30
1995-96	243.02	194.53	57.41	138.55	56.00	21.29
1996-97	261.34	207.50	57.88	145.75	54.42	24.91
1997-98	278.64	222.37	61.26	162.61	58.62	25.77
1998-99	284.29	225.01	61.64	169.41	54.54	19.92
1999-00	298.66	239.43	61.30	175.78	47.20	20.03
2000-01	321.48	258.22	64.13	193.50	55.81	21.48
2001-02	345.05	273.24	66.00	197.87	67.37	19.80

a Before 1980-81, net production referred to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines and ports. From 1980-81, net production refers to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines only. Thus, from 1980-81, net production is identical to salable production. b Calendar year basis before 1984-85. na Not available.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88*, Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics*, Sydney; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABARE.

## Coal

### 247 Australian raw coal production, by state

	New South Wales Mt	Victoria <sup>a</sup> Mt	Queensland Mt	Western Australia Mt	South Australia Mt	Tasmania Mt
1960-61	18.45	15.98	3.07	0.75	1.02	0.29
1961-62	19.39	17.00	3.47	0.95	1.25	0.26
1962-63	19.03	18.05	3.48	0.95	1.50	0.24
1963-64	20.56	18.98	4.50	0.93	1.63	0.18
1964-65	22.16	19.87	4.86	0.97	1.94	0.13
1965-66	25.41	21.90	5.56	1.08	2.04	0.10
1966-67	26.63	22.87	6.06	1.10	2.05	0.08
1967-68	28.57	23.43	7.19	1.08	2.02	0.09
1968-69	32.24	23.50	9.20	1.12	2.18	0.11
1969-70	35.32	24.31	11.65	1.17	2.15	0.12
1970-71	35.72	23.18	14.32	1.18	1.62	0.12
1971-72	36.96	23.63	19.01	1.21	1.56	0.12
1972-73	38.66	24.12	25.27	1.15	1.58	0.13
1973-74	36.63	26.44	27.15	1.20	1.49	0.12
1974-75	42.31	27.54	32.10	1.88	1.79	0.14
1975-76	40.59	29.21	32.40	2.14	1.82	0.18
1976-77	46.79	30.99	34.66	2.38	1.95	0.20
1977-78	49.25	30.47	34.14	2.42	1.78	0.19
1978-79	50.52	32.10	37.26	2.41	1.47	0.25
1979-80	48.71	32.90	36.53	3.03	1.72	0.21
1980-81	58.29	32.10	42.76	3.12	1.73	0.30
1981-82	59.82	37.57	45.14	3.42	1.44	0.39
1982-83	67.46	34.71	46.91	3.96	1.45	0.56
1983-84	66.53	33.20	57.20	3.93	1.33	0.45
1984-85	70.03	38.38	69.21	3.65	1.75	0.49
1985-86	77.19	36.08	80.01	3.75	2.17	0.50
1986-87	88.51	41.81	87.09	3.78	2.43	0.62
1987-88	76.27	44.29	84.61	3.69	2.52	0.60
1988-89	81.27	48.65	95.48	3.89	2.76	0.65
1989-90	93.89	45.96	95.30	4.13	2.94	0.60
1990-91	96.70	49.39	99.67	5.21	2.53	0.59
1991-92	101.17	50.72	108.32	5.29	2.88	0.54
1992-93	102.91	47.90	110.93	5.40	2.79	0.48
1993-94	101.95	49.68	111.12	5.15	2.69	0.57
1994-95	107.78	49.92	119.97	5.82	3.04	0.61
1995-96	113.09	54.28	120.93	5.97	2.45	0.58
1996-97	123.68	60.79	128.92	5.59	2.59	0.56
1997-98	134.01	65.27	135.56	5.80	2.70	0.58
1998-99	131.38	66.65	143.79	5.74	2.80	0.57
1999-00	132.90	67.36	155.72	6.63	2.87	0.55
2000-01	138.78	64.96	172.88	6.19	3.16	0.47
2001-02	145.20	66.60	189.40	6.59	3.37	0.50

<sup>a</sup> Brown coal. Between 1960-61 and 1968-69, Victoria produced small quantities of black coal which are not included in this table.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88*, Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics*, Sydney; Victorian Department of Natural Resources and Environment; ABARE.

## 248 Australian consumption of coal, by major end use

	Black coal					Brown coal
	Electricity generation Mt	Iron and steel <sup>a</sup> Mt	Cement Industry Mt	Other consumers Mt	Total Mt	Electricity generation Mt
1980-81	24.96	9.05	0.90	2.79	37.71	28.88
1981-82	24.48	8.42	1.11	2.78	36.79	36.26
1982-83	26.91	6.46	1.02	2.89	37.29	33.42
1983-84	28.06	6.22	0.92	3.44	38.64	32.05
1984-85	29.74	6.25	1.02	3.67	40.67	37.09
1985-86	31.48	6.20	0.93	3.95	42.56	34.89
1986-87	32.76	6.44	0.70	4.18	44.07	40.49
1987-88	33.91	7.22	0.69	4.20	46.01	43.07
1988-89	36.82	7.92	0.79	4.34	49.87	47.35
1989-90	38.17	7.43	0.85	4.23	50.68	44.87
1990-91	38.41	7.40	0.86	4.25	50.92	48.17
1991-92	39.88	7.35	0.85	4.72	52.81	49.50
1992-93	40.68	7.11	0.87	4.28	52.94	46.78
1993-94	41.83	7.09	0.90	4.37	54.18	48.56
1994-95	42.82	7.55	0.74	4.26	55.36	48.72
1995-96	45.60	6.39	0.82	4.60	57.41	53.41
1996-97	46.15	6.24	0.80	4.68	57.88	59.75
1997-98	48.16	7.55	0.86	4.69	61.26	64.22
1998-99	49.68	6.48	0.87	4.61	61.64	65.54
1999-00	50.16	5.63	0.85	4.66	61.30	66.43
2000-01	53.54	5.20	0.74	4.66	64.13	66.40

<sup>a</sup> As received basis.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88*, Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics*, Sydney; Victorian Department of Natural Resources and Environment; ABARE.

## 249 Australian exports of coal, by coal type

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Coking coal, high quality</b>									
Volume	Mt	48.39	49.83	49.34	57.01	56.00	62.78	61.96	65.46
Value	\$m	2 875	3 226	3 214	4 162	3 868	3 587	4 241	5 353
Unit value	\$/t	59.42	64.74	65.13	73.00	69.07	57.14	68.44	81.77
<b>Coking coal, excluding high quality</b>									
Volume	Mt	24.95	27.59	29.35	27.07	29.26	34.03	43.56	40.37
Value	\$m	1 223	1 519	1 600	1 580	1 604	1 596	2 356	2 685
Unit value	\$/t	49.02	55.08	54.53	58.38	54.82	46.92	54.07	66.51
<b>Total coking coal</b>									
Volume	Mt	73.34	77.41	78.69	84.07	85.26	96.81	105.53	105.83
Value	\$m	4 098	4 745	4 814	5 742	5 472	5 184	6 597	8 038
Unit value	\$/t	55.88	61.30	61.18	68.30	64.18	53.54	62.51	75.95
<b>Steaming coal</b>									
Volume	Mt	62.90	61.14	67.06	78.54	84.15	78.97	87.98	92.04
Value	\$m	2 775	3 014	3 118	3 790	3 767	3 114	4 204	5 294
Unit value	\$/t	44.12	49.29	46.49	48.25	44.76	39.43	47.78	57.51

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data supplied by the ABS.

## Coal

### 250 Australian exports of steaming coal, by destination

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Asia</b>								
ASEAN <sup>a</sup>	1.05	1.51	1.76	2.27	2.81	3.86	2.24	2.48
China <sup>b</sup>	1.08	1.43	1.48	1.53	1.65	0.88	0.60	2.95
Chinese Taipei	5.40	6.79	7.64	10.04	8.57	9.29	8.65	10.24
Hong Kong, China	2.69	1.58	1.90	1.87	2.06	0.73	0.42	0.26
Japan	34.61	35.02	35.29	40.29	39.28	43.01	49.99	49.62
Korea, Rep. of	8.79	9.58	11.12	15.56	13.77	11.38	12.80	13.40
Other Asia	0.68	1.27	1.45	1.46	2.38	3.31	4.92	3.45
<b>Total</b>	<b>54.29</b>	<b>57.19</b>	<b>60.64</b>	<b>73.03</b>	<b>70.54</b>	<b>72.47</b>	<b>79.63</b>	<b>82.40</b>
<b>Europe</b>								
European Union	6.84	2.81	4.55	3.89	10.63	5.06	6.49	6.25
Denmark	1.05	0.91	1.43	0.45	0.48	0.32	0.16	0.19
Germany	0.22	0.21	0.27	0.00	1.23	0.00	0.00	0.17
Netherlands	3.34	0.74	0.90	1.76	2.82	1.88	1.39	1.51
United Kingdom	0.00	0.00	0.42	0.44	1.86	1.22	1.75	0.97
Other Europe	1.77	1.15	1.87	1.62	2.98	1.44	1.86	3.38
<b>Total all countries</b>	<b>62.90</b>	<b>61.14</b>	<b>67.06</b>	<b>78.54</b>	<b>84.15</b>	<b>78.97</b>	<b>87.98</b>	<b>92.04</b>

<sup>a</sup> Includes Brunei Darussalam, Indonesia, Malaysia, the Philippines, Thailand and Viet Nam. <sup>b</sup> Excludes Hong Kong.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

### 251 Australian exports of high quality coking coal, by destination

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Asia</b>								
China <sup>a</sup>	0.22	0.14	0.32	0.28	1.26	1.42	0.43	0.04
Chinese Taipei	2.55	3.10	3.78	4.16	2.79	2.93	3.90	4.01
India	8.79	9.87	9.46	9.27	8.03	8.57	9.09	9.67
Japan	13.25	13.22	12.88	15.16	14.94	18.54	16.76	17.37
Korea, Rep. of	5.00	5.29	5.47	5.64	5.23	5.10	6.43	6.63
Pakistan	0.57	0.39	0.48	0.53	0.48	0.41	0.42	0.49
Other Asia	2.40	2.00	2.02	2.46	2.47	1.44	1.55	2.11
<b>Total Asia</b>	<b>32.79</b>	<b>34.02</b>	<b>34.41</b>	<b>37.50</b>	<b>35.22</b>	<b>38.40</b>	<b>38.57</b>	<b>40.33</b>
<b>Europe</b>								
European Union	11.43	11.94	10.98	13.14	14.67	16.76	16.12	16.94
France	2.63	2.39	1.87	2.15	2.63	3.12	3.22	2.94
Germany	0.18	0.46	0.67	1.01	1.38	1.74	1.40	1.24
Italy	1.93	2.13	1.77	2.19	2.26	2.23	2.24	2.34
United Kingdom	3.47	3.49	3.34	4.13	3.93	4.85	4.31	3.97
Other Europe	4.17	3.87	3.95	6.36	6.11	7.62	7.28	8.19
<b>Total all countries</b>	<b>48.39</b>	<b>49.83</b>	<b>49.34</b>	<b>57.01</b>	<b>56.00</b>	<b>62.78</b>	<b>61.96</b>	<b>65.46</b>

<sup>a</sup> Excludes Hong Kong.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

## 252 Australian exports of coking coal other than high quality, by destination

	1994-95 Mt	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt
<b>Asia</b>								
Chinese Taipei	0.41	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>
India	0.09	0.04	0.08	0.27	0.67	1.16	1.64	2.27
Japan	17.20	12.09	19.68	18.15	19.09	21.45	26.72	23.02
Korea, Rep. of	3.55	2.69	1.13	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>
Pakistan	0.30	0.18	0.04	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>	na <sup>a</sup>
<b>Europe</b>								
European Union <sup>b</sup>	1.12	0.30	1.37	1.07	0.86	2.43	4.76	4.24
<b>Americas</b>								
Brazil	1.98	1.26	1.08	1.11	0.96	1.29	2.20	1.62
<b>Total all countries</b>	<b>24.95</b>	<b>27.59</b>	<b>29.35</b>	<b>27.07</b>	<b>29.26</b>	<b>34.03</b>	<b>43.56</b>	<b>40.37</b>

<sup>a</sup> Confidential. <sup>b</sup> Regarded as twelve countries for all years. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

## 253 World exports of coal, by coal type and major exporters

	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt
<b>Metallurgical coal</b>								
Australia <sup>a</sup>	71.8	74.6	76.9	83.7	83.6	92.4	100.0	106.3
Canada	27.0	28.6	28.7	30.1	28.4	29.0	28.4	27.0
China	4.9	6.0	7.5	4.6	4.9	5.2	6.5	11.5
Indonesia <sup>a</sup>	1.8	2.4	3.0	3.9	5.2	8.3	8.7	9.1
Poland	10.7	12.3	9.9	9.1	6.5	6.6	5.3	3.8
Russian Federation	5.7	8.7	6.5	8.5	6.4	6.4	7.3	6.9
South Africa <sup>a</sup>	5.8	6.3	6.1	7.1	6.9	2.5	2.5	2.5
United States	42.9	47.3	48.0	47.3	42.7	29.1	30.0	23.0
<b>World <sup>a</sup></b>	<b>196.1</b>	<b>196.4</b>	<b>195.2</b>	<b>196.4</b>	<b>191.9</b>	<b>179.6</b>	<b>192.5</b>	<b>192.6</b>
<b>Total seaborne</b>	<b>163.0</b>	<b>176.9</b>	<b>177.4</b>	<b>182.7</b>	<b>177.5</b>	<b>168.0</b>	<b>179.8</b>	<b>184.0</b>
<b>Thermal coal</b>								
Australia	59.4	62.1	63.6	73.6	83.0	79.2	87.1	88.0
Canada	4.6	5.4	5.7	6.4	5.8	4.6	3.7	3.0
China <sup>a</sup>	19.3	21.9	29.0	30.7	27.4	32.2	48.6	79.4
Colombia	17.6	17.2	23.7	25.4	29.4	29.2	35.0	36.5
Indonesia	23.6	30.0	34.6	39.3	41.8	49.3	48.1	57.3
Poland	17.0	19.6	19.0	20.3	21.5	17.5	18.0	19.2
Russian Federation	17.4	17.6	18.8	15.0	17.6	21.3	29.4	34.1
South Africa	54.8	59.7	60.2	64.2	61.3	66.2	69.9	69.3
United States	21.8	36.2	34.0	28.5	29.4	24.0	23.2	21.0
<b>World</b>	<b>252.7</b>	<b>297.0</b>	<b>318.0</b>	<b>335.8</b>	<b>353.6</b>	<b>367.8</b>	<b>402.4</b>	<b>429.0</b>
<b>Total seaborne</b>	<b>219.4</b>	<b>252.1</b>	<b>276.2</b>	<b>284.4</b>	<b>293.4</b>	<b>309.8</b>	<b>347.6</b>	<b>391.8</b>

<sup>a</sup> Includes pulverised coal injection – coal used for metallurgical purposes.

Sources: International Energy Agency, *Coal Information*, OECD, Paris; Joint Coal Board and Queensland Department of Mines and Energy, *Australian Black Coal Statistics*, Sydney; ABARE.

## Coal

### 254 Japanese imports of coal, by source

	Total imports Mt	Australia %	Canada %	China %	Indonesia %	Russian Federation %	South Africa %	United States %	Other %
<b>Steaming coal</b>									
1993	37.47	69.1	4.3	9.0	2.1	3.1	6.5	5.9	0.1
1994	42.14	65.6	3.3	10.7	5.2	3.3	6.2	5.7	0.0
1995	49.39	62.4	3.5	11.7	6.2	4.1	6.0	6.2	0.1
1996	52.34	60.6	4.9	12.7	5.6	4.0	5.8	6.2	0.2
1997	54.20	64.2	4.0	13.5	5.1	3.5	5.5	4.3	0.0
1998	55.08	66.0	3.5	14.4	5.0	2.4	4.0	4.8	0.0
1999	60.32	64.9	2.2	14.5	6.1	4.1	3.7	4.5	0.1
2000	65.30	64.1	2.1	17.0	5.4	4.8	2.5	4.2	0.0
2001	71.14	63.3	0.8	21.1	6.6	4.6	1.5	2.1	0.0
<b>Coking coal</b>									
1993	74.05	50.2	20.1	2.6	6.9	3.7	4.0	11.8	0.7
1994	63.22	49.0	21.1	3.1	7.9	4.1	4.1	10.0	0.6
1995	65.42	46.2	21.6	3.9	7.8	4.2	4.3	11.1	0.9
1996	65.51	45.5	21.9	5.0	10.3	4.0	3.4	8.7	1.2
1997	65.39	48.3	21.8	4.8	10.6	3.6	2.7	7.0	1.2
1998	62.82	47.8	20.9	4.8	13.0	3.4	2.6	6.4	1.2
1999	63.15	54.9	19.2	4.3	13.6	3.1	0.8	2.8	1.5
2000	64.74	57.9	15.8	5.6	13.8	3.1	0.4	1.9	1.7
2001	60.60	na	na	na	na	na	na	na	na

Source: International Energy Agency, *Energy Prices and Taxes*, OECD, Paris.

### 255 European Union imports of coal, by source <sup>a</sup>

	Total imports Mt	Australia %	Canada %	Columbia %	Poland %	South Africa %	United States %	Other %
<b>Steaming coal</b>								
1993	37.79	29.1	4.5	na	6.8	1.3	53.8	4.5
1994	38.54	32.1	7.1	na	5.9	1.6	48.8	4.6
1995	41.26	32.2	10.1	na	5.7	1.9	45.1	5.0
1996	39.59	29.5	11.7	na	5.8	2.9	45.2	4.7
1997	39.97	30.4	12.0	na	6.4	4.7	42.5	4.1
1998	43.00	29.4	10.5	na	6.8	7.0	42.7	3.6
1999 <sup>s</sup>	31.81	38.3	13.2	na	4.9	2.7	36.0	4.9
2000 <sup>s</sup>	38.79	44.5	13.8	na	3.2	2.0	33.4	3.2
2001 <sup>s</sup>	36.72	47.4	14.5	na	1.6	4.6	27.3	3.5
<b>Coking coal</b>								
1993	37.79	29.1	4.5	na	6.8	1.3	53.7	4.6
1994	38.54	32.1	7.1	na	5.9	1.6	48.8	4.6
1995	41.16	32.3	10.1	na	5.7	1.9	44.9	5.0
1996	39.76	29.3	11.7	na	5.8	2.9	45.7	4.6
1997	39.97	30.2	12.0	na	6.4	4.7	42.9	3.9
1998	42.78	29.6	10.6	na	6.8	7.0	42.4	3.6
1999 <sup>s</sup>	43.04	37.9	13.5	na	5.1	2.8	35.8	4.9
2000 <sup>s</sup>	45.88	44.3	14.0	na	3.3	2.0	32.2	4.3
2001 <sup>s</sup>	44.09	na	na	na	na	na	na	na

<sup>a</sup> Imports from non-EU countries only. Regarded as twelve countries to 1 January 1995, then fifteen countries. <sup>s</sup> ABARE estimate. **na** Not available.

Source: International Energy Agency, *Energy Prices and Taxes*, OECD, Paris.

# 256 Japanese and European Union coal import unit values, by country of origin <sup>a</sup>

	1993 US\$/t	1994 US\$/t	1995 US\$/t	1996 US\$/t	1997 US\$/t	1998 US\$/t	1999 US\$/t	2000 US\$/t	2001 US\$/t
<b>Japan</b>									
<b>Steaming coal</b>									
Australia	46.31	44.92	48.87	50.24	45.59	40.80	36.12	34.59	38.32
Canada	45.76	42.88	44.20	45.91	42.01	38.25	33.50	34.72	36.94
China	43.55	39.05	44.48	46.52	44.73	39.96	34.89	33.69	36.95
Indonesia	42.38	39.89	43.79	45.49	41.63	36.58	32.40	31.85	55.17
South Africa	44.34	42.47	48.27	49.86	46.58	41.50	37.34	35.82	38.05
United States	51.05	49.92	52.65	54.32	49.86	47.52	45.37	45.39	45.99
All sources <sup>b</sup>	45.92	43.88	47.85	49.29	45.26	40.68	35.87	34.59	37.95
<b>Coking coal</b>									
Australia	51.49	47.89	51.15	54.07	52.73	49.47	41.83	39.01	40.96
Canada	67.12	64.66	64.49	64.44	64.84	59.73	51.05	45.46	47.30
China	50.52	47.03	49.49	51.88	49.98	46.78	40.01	37.12	39.35
Indonesia	44.73	43.03	48.29	49.01	45.51	39.73	34.07	32.36	35.13
South Africa	46.78	46.93	49.54	50.94	49.64	47.06	39.74	39.99	47.09
United States	61.82	59.34	61.37	61.05	61.24	59.53	55.79	52.69	47.81
All sources <sup>b</sup>	55.39	51.91	55.03	56.39	55.19	50.98	42.95	39.46	41.13
<b>European Union</b>									
<b>Steaming coal</b>									
Australia	38.85	40.74	45.06	48.25	46.38	40.03	36.68	39.04	44.13
Indonesia	40.83	40.41	40.67	38.96	33.61	30.79	29.35	30.05	36.06
Poland	36.60	41.44	46.78	46.50	44.57	42.62	39.61	35.03	35.30
South Africa	32.86	36.18	43.76	42.23	40.33	36.30	32.24	31.78	33.83
United States	46.96	46.05	49.12	48.03	48.47	46.99	40.67	41.07	46.59
All non-EU sources <sup>c</sup>	41.14	40.02	46.25	45.07	43.13	39.40	34.12	34.94	42.80
<b>Coking coal</b>									
Australia	55.67	55.56	57.03	59.72	57.97	54.99	47.33	45.45	51.24
Poland	54.09	53.55	59.26	61.11	61.01	52.52	47.48	50.43	51.58
South Africa	48.21	44.13	49.65	47.44	43.31	35.83	35.83	39.09	42.10
United States	57.13	58.22	61.20	62.03	60.08	58.53	54.14	52.91	58.54
All non-EU sources <sup>c</sup>	55.75	55.89	58.49	59.81	58.08	54.55	49.00	47.85	53.50

<sup>a</sup> Average unit value cif. <sup>b</sup> Average includes countries not listed separately. <sup>c</sup> Average includes non-EU countries not listed separately.

Source: International Energy Agency, *Energy Prices and Taxes*, OECD, Paris.

## Coal

### 257 Selected Australian–Japanese contract prices for coking and steaming coal <sup>a</sup>

	1995	1996	1997	1998	1999	2000	2001	2002
<i>Coking coal</i>								
Hard <sup>b</sup>								
US\$/t	51.10	53.50	53.50	50.95	41.90	39.75	42.75	na
A\$/t	69.26	68.64	72.11	81.19	64.98	68.30	80.26	na
Real A\$/t	72.82	72.48	78.28	87.38	68.93	70.27	80.26	na
Other coking <sup>c</sup>								
US\$/t	42.67	43.87	41.87	37.90	32.20	30.60	35.20	33.50
A\$/t	57.83	56.29	56.44	60.40	49.94	52.58	66.09	62.06
Real A\$/t	68.33	64.81	64.82	68.78	56.05	56.48	68.00	62.06
<i>Steaming coal</i> <sup>d</sup>								
US\$/t	40.30	40.30	37.65	34.50	29.95	28.75	34.50	31.85
A\$/t	54.61	51.71	50.75	54.94	46.43	49.40	64.72	58.98
Real A\$/t	64.54	59.54	58.29	62.61	52.13	53.06	66.60	58.98

<sup>a</sup> Japanese fiscal year beginning 1 April. Prices are fob; real prices are in 2000 Australian dollar terms. <sup>b</sup> For example, Goonyella export coal. <sup>c</sup> Non-hard coking coal price based on Australian/Japanese contract settlements. <sup>d</sup> For steaming coal with a calorific value of 6700 kcal/kg. **na** Not available.

Sources: International Energy Agency, *Coal Information*, OECD, Paris; ABARE.



## 258 Australian and US coal export unit values, by destination <sup>a</sup>

	1993 US\$/t	1994 US\$/t	1995 US\$/t	1996 US\$/t	1997 US\$/t	1998 US\$/t	1999 US\$/t	2000 US\$/t	2001 US\$/t
<b>Australia</b>									
<b>Steaming coal</b>									
France	31.72	32.31	32.97	34.02	35.12	25.88	22.37	19.14	31.38
Italy	33.81	31.93	37.75	na	na	24.50	22.27	21.30	31.07
Japan	35.49	33.71	36.85	38.89	35.40	31.50	27.02	27.22	29.69
Netherlands	31.27	30.27	33.03	32.65	29.50	23.89	20.49	20.65	26.45
All destinations <b>b</b>	33.45	32.74	34.99	37.77	34.35	30.10	26.49	24.27	28.71
<b>Coking coal</b>									
France	43.89	41.56	43.07	47.24	46.71	42.37	36.49	33.37	37.32
Italy	43.29	39.80	42.06	48.57	48.41	44.48	40.38	34.97	42.68
Japan	43.85	40.24	43.37	46.11	45.52	42.47	34.60	31.64	34.46
Netherlands	43.76	41.02	44.75	46.36	47.94	44.03	37.73	34.10	41.09
All destinations <b>b</b>	44.27	41.39	44.23	47.56	47.37	43.97	35.99	32.86	36.93
<b>United States</b>									
<b>Steaming coal</b>									
France	35.08	41.94	38.72	39.83	38.40	39.16	42.14	28.96	30.50
Italy	44.38	42.21	45.97	45.41	43.31	40.12	51.13	30.67	42.50
Japan	39.08	37.13	38.61	40.02	38.55	37.00	35.40	34.90	37.70
Netherlands	44.32	39.63	40.53	36.31	35.86	32.78	28.44	28.90	35.71
All destinations <b>b</b>	39.78	38.22	38.94	36.94	34.84	32.24	32.02	31.84	34.51
<b>Coking coal</b>									
France	49.79	48.90	49.69	51.95	52.03	50.64	47.10	44.19	48.54
Italy	50.63	49.96	51.38	52.80	53.85	52.93	51.02	49.45	53.11
Japan	47.99	44.72	45.35	46.51	45.94	45.98	44.46	41.99	na
Netherlands	50.89	49.68	51.32	52.13	51.92	51.25	47.90	45.46	48.90
All destinations <b>b</b>	48.63	47.11	48.47	50.05	49.99	48.55	46.19	42.98	45.88

**a** Average unit value, fob. **b** Average for all countries. **na** Not available.

Source: International Energy Agency, *Energy Prices and Taxes*, OECD, Paris.

## 259 World hard coal production, by country <sup>a</sup>

	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt
Australia	183.8	192.8	198.7	216.9	219.5	238.2	245.5	265.5
Brazil	5.1	5.2	4.8	5.6	5.5	5.5	5.5	5.5
Canada	36.6	38.6	40.0	41.2	38.1	36.5	33.8	34.2
China <b>b</b>	1 215.5	1 343.0	1 401.8	1 367.2	1 305.5	1 238.3	1 231.2	1 293.8
Colombia	22.6	25.7	30.0	32.5	33.7	32.7	38.4	42.6
Former Soviet Union <b>c</b>	354.0	325.9	300.5	292.6	284.5	287.8	302.4	322.6
Germany	57.6	58.9	53.2	51.2	45.3	43.8	37.4	30.7
India	253.5	268.7	277.9	283.6	288.1	296.7	306.2	312.5
Indonesia	32.3	41.1	50.2	54.9	61.2	72.0	76.6	92.5
Poland	133.9	137.2	137.9	137.8	115.7	110.2	103.4	104.2
South Africa	195.8	206.2	206.4	220.1	223.0	223.5	224.2	224.5
United Kingdom	49.0	53.0	50.2	48.5	41.2	37.1	32.0	32.1
United States	857.7	858.6	885.2	910.5	936.2	919.2	895.2	944.9
World total <b>d</b>	3 539.8	3 700.1	3 777.0	3 796.4	3 738.2	3 661.9	3 661.1	3 834.0

**a** Hard coal includes anthracite and bituminous coal, and for the United States and New Zealand, sub-bituminous coal. **b** Excludes Hong Kong. **c** Former Soviet Union until 1992, then total of fifteen countries. **d** Includes countries not listed separately.

Sources: International Energy Agency, *Coal Information*, OECD, Paris; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics*, Sydney.

## Construction materials

# 260 Summary of Australian statistics for dimension stone

	Production <sup>a</sup>	Exports		Imports
	Volume kt	Volume t	Value \$'000	Value \$'000
1960	323	na	15	363
1961	541	na	9	405
1962	385	na	8	439
1963	639	na	24	481
1964	599	na	7	613
1965	474	na	12	562
1966	245	1 629	32	440
1967	290	280	16	408
1968	280	657	32	407
1969	269	792	44	427
1970	90	1 821	84	466
1971	81 <sup>b</sup>	1 209	57	569
1972	318 <sup>b</sup>	731	42	708
1973	144 <sup>b</sup>	1 621	105	395
1974	143 <sup>b</sup>	2 347	155	440
1975	255 <sup>b</sup>	379	na	606
1976	112	112	na	489
1977	84	757	180	832
1978	115	387	133	2 371
1979	122 <sup>c</sup>	1 086	83	2 224
1980	116 <sup>c</sup>	2 762	220	4 472
1981	125 <sup>c</sup>	205	46	5 450
1982	129 <sup>d</sup>	84	33	7 768
1983	97 <sup>d</sup>	1 224	367	6 619
1984	102 <sup>d</sup>	4 244	1 861	9 980
1985	190 <sup>e</sup>	2 537	782	14 025
1986	106 <sup>e</sup>	5 226	1 893	12 097
1987	99 <sup>f</sup>	2 974	1 119	15 231
1988	149 <sup>g</sup>	1 659	776	16 295
1988-89	92 <sup>f</sup>	2 913	1 441	19 732
1989-90	198	1 665	1 520	17 455
1990-91	na	3 393	4 417	11 237
1991-92	na	11 672	2 963	11 466
1992-93	553	8 721	4 501	11 173
1993-94	na	10 007	5 829	10 604
1994-95	na	14 605	5 531	9 811
1995-96	na	17 372	6 220	8 411
1996-97	na	15 364	5 519	7 828
1997-98	na	5 074	4 223	5 377
1998-99	na	16 766	6 509	12 327
1999-00	119	21 747	6 249	14 818
2000-01	104	18 029	7 725	11 958
2001-02	na	39 651	8 716	6 902

<sup>a</sup> Data incomplete because coverage differs between states. <sup>b</sup> Excludes the Australian Capital Territory, the Northern Territory and Queensland.

<sup>c</sup> Excludes the Australian Capital Territory and the Northern Territory. <sup>d</sup> Excludes the Australian Capital Territory. <sup>e</sup> Excludes the Australian Capital Territory and Queensland. <sup>f</sup> Excludes the Australian Capital Territory, Queensland and Western Australia. <sup>g</sup> Excludes the Australian Capital Territory, Queensland and Tasmania. <sup>na</sup> Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, BMR, Canberra; state mines departments and their equivalents; ABARE.

# 261 Australian production of dimension stone, by state <sup>a</sup>

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	160	4	5	114	39	na	323
1961	360	7	2	132	40	na	541
1962	201	9	3	130	37	1	385
1963	377	10	2	214	25	2	639
1964	387	10	3	151	32	6	599
1965	225	15	4	189	32	1	474
1966	45	10	2	149	31	1	245
1967	45	11	2	129	47	2	290
1968	42	7	5	148	42	4	280
1969	31	9	3	167	49	2	269
1970	23	8	na	4	51	2	90
1971	13	10	na	7	50	1	81 <b>b</b>
1972	27	13	na	228	47	1	318 <b>c</b>
1973	14	15	na	67	46	2	144 <b>c</b>
1974	14	11	na	67	49	2	143 <b>c</b>
1975	12	12	na	187	40	2	255 <b>c</b>
1976	15	11	na	30	36	2	112 <b>c</b>
1977	13	8	4	22	27	3	84 <b>b</b>
1978	14	13	2	45	29	4	115 <b>b</b>
1979	16	7	8	56	28	6	122 <b>b</b>
1980	14	26	12	31	32	3	116 <b>d</b>
1981	24	29	24	20	27	1	125 <b>d</b>
1982	16	20	44	24	24	1	129 <b>e</b>
1983	21	35	na	11	29	1	97 <b>e</b>
1984	22	18	na	25	35	1	102 <b>e</b>
1985	22	28	na	101	34	4	190 <b>f</b>
1986	21	19	na	32	31	2	106 <b>f</b>
1987	21	46	na	na	31	1	99 <b>g</b>
1988	32	31	na	50	34	2	149 <b>h</b>
1988-89	34	17	na	na	40	1	92 <b>g</b>
1989-90	32	52	9	72	31	2	198
1990-91	40	6	na	na	42	2	na
1991-92	35	na	na	na	61	2	na
1992-93	33	12	31	414	61	2	553
1993-94	na	na	25	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	29	na	na	na	31	na	na
1996-97	25	na	20	1	28	na	na
1997-98	25	na	17	3	37	na	na
1998-99	34	5	25	4	41	na	na
1999-00	32	4	20	3	52	7	119
2000-01	27	2	30	1	38	6	104

<sup>a</sup> Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. <sup>b</sup> Includes the Australian Capital Territory, the Northern Territory and Queensland. <sup>c</sup> Excludes the Australian Capital Territory, the Northern Territory and Queensland. <sup>d</sup> Excludes the Australian Capital Territory and the Northern Territory. <sup>e</sup> Excludes the Australian Capital Territory. <sup>f</sup> Excludes the Australian Capital Territory and Queensland. <sup>g</sup> Excludes the Australian Capital Territory, Queensland and Western Australia. <sup>h</sup> Excludes the Australian Capital Territory, Queensland and Tasmania. **na** Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

## Construction materials

### 262 Australian exports of dimension stone, by destination

	Italy	New Zealand	Other	Total	
	t	t	t	Volume t	Value \$'000
1960	na	na	na	na	15
1961	na	na	na	na	9
1962	na	na	na	na	8
1963	na	na	na	na	24
1964	na	na	na	na	7
1965	na	na	na	na	12
1966	na	na	na	1 629	32
1967	na	na	na	280	16
1968	na	na	na	657	32
1969	na	na	na	792	44
1970	na	na	na	1 821	84
1971	na	na	na	1 209	57
1972	na	na	na	731	42
1973	na	na	na	1 621	105
1974	na	na	na	2 347	155
1975	na	na	na	379	na
1976	na	na	na	112	na
1977	na	na	na	757	180
1978	na	na	na	387	133
1979	na	na	na	1 086	83
1980	1 973	40	749	2 762	220
1981	0	4	201	205	46
1982	0	31	53	84	33
1983	1 178	6	40	1 224	367
1984	3 290	26	928	4 244	1 861
1985	2 364	133	40	2 537	782
1986	4 831	259	136	5 226	1 893
1987	1 903	324	747	2 974	1 119
1988	634	272	753	1 659	776
1988-89	530	290	2 092	2 913	1 441
1989-90	249	158	1 258	1 665	1 520
1990-91	910	110	2 373	3 393	4 417
1991-92	490	57	11 125	11 672	2 963
1992-93	1 324	54	7 343	8 721	4 501
1993-94	203	199	9 604	10 007	5 829
1994-95	136	178	14 292	14 605	5 531
1995-96	2 168	23	15 180	17 372	6 220
1996-97	2 546	148	12 670	15 364	5 519
1997-98	190	27	4 857	5 074	4 223
1998-99	220	186	16 359	16 766	6 509
1999-00	1 015	106	20 626	21 747	6 249
2000-01	2 565	25	15 439	18 029	7 725
2001-02	3 400	268	35 983	39 651	8 716

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABARE.

# 263 Australian imports of dimension stone

	Slate		Marble <sup>a</sup>		Crystalline rock <sup>b</sup>		Quartzite <sup>c</sup>		Total
	Volume '000 m <sup>2</sup>	Value \$'000	Volume t	Value \$'000	Volume t	Value \$'000	Volume t	Value \$'000	Value \$'000
1970	na	na	1 910	246	1 591	77	na	na	466
1971	na	na	3 372	330	2 007	110	na	na	569
1972	na	na	2 711	407	1 468	85	na	na	708
1973	na	na	1 309	206	1 898	118	na	na	395
1974	na	na	1 376	204	1 267	73	na	na	440
1975	na	na	1 634	289	1 610	133	na	na	606
1976	na	na	1 183	218	2 791	177	na	na	489
1977	na	na	1 706	397	1 862	215	na	na	832
1978	na	na	1 578	457	1 658	160	na	na	2 371
1979	na	na	1 752	507	2 479	287	na	na	2 224
1980	na	2 109	2 707	995	2 026	391	na	na	4 472
1981	na	3 728	2 800	1 205	1 982	369	207	94	5 450
1982	na	5 510	3 631	1 516	3 277	572	659	170	7 768
1983	689	4 535	3 049	1 493	1 993	420	3 521	171	6 619
1984	988	6 521	3 569	1 964	3 517	1 170	5 703	325	9 980
1985	1 266	8 911	4 449	2 999	3 859	1 956	222	159	14 025
1986	1 062	7 717	3 001	2 354	2 685	1 698	357	328	12 097
1987	1 343	9 105	3 221	2 982	8 873	2 663	349	481	15 231
1988	1 674	11 414	2 300	1 903	17 122	2 552	580	426	16 295
1988-89	2 139	14 023	2 688	2 058	28 732	3 120	905	530	19 732
1989-90	1 687	11 584	1 975	2 087	15 232	3 348	744	436	17 455
1990-91	1 255	7 598	960	784	5 291	2 598	483	257	11 237
1991-92	1 659	8 330	694	663	3 688	2 110	463	363	11 466
1992-93	1 410	7 406	557	499	4 181	2 613	1 071	655	11 173
1993-94	1 200	6 401	702	618	4 824	3 241	659	343	10 604
1994-95	1 044	5 475	689	718	6 172	3 273	364	346	9 811
1995-96	608	3 098	700	750	7 350	4 211	217	352	8 411
1996-97	509	2 778	702	675	7 915	4 160	128	215	7 828
1997-98	177	1 050	1 000	1 014	5 399	3 182	121	131	5 377
1998-99	333	2 350	1 809	2 659	10 323	7 114	112	204	12 327
1999-00	370	3 452	1 654	2 000	14 576	8 967	248	398	14 818
2000-01	269	1 406	1 368	1 648	12 018	8 660	152	244	11 958
2001-02	215	1 373	406	273	10 283	4 827	434	429	6 902

<sup>a</sup> Includes calcareous stone. <sup>b</sup> Includes sandstone. <sup>c</sup> Predominantly quartzite. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; ABARE.

## Construction materials

### 264 Australian production of sand, by state <sup>a</sup>

	New South Wales kt	Victoria kt	Queensland kt	South Australia kt	Tasmania kt	Northern Territory kt	Australia kt
1960	3 023	1 132	na	1 843	21	na	6 030
1961	2 984	2 568	na	1 893	35	na	7 547
1962	3 005	2 842	na	1 540	99	na	7 656
1963	3 729	3 048	na	2 026	113	na	9 196
1964	5 209	3 352	na	1 884	163	na	10 929
1965	5 045	3 989	na	1 823	280	na	11 628
1966	4 246	4 356	na	1 611	232	na	10 838
1967	4 598	4 278	na	1 784	234	na	11 328
1968	6 718	5 075	na	2 110	281	na	14 637
1969	6 686	6 680	1 022	2 930	265	na	18 199
1970	6 174	5 242	2 282	2 627	271	na	16 973
1971	6 353	5 747	3 031	2 707	185	371	18 394 b
1972	7 603	5 619	3 619	2 387	185	471 c	19 884 b
1973	8 798	6 660	4 182	2 525	179	581 c	22 925 b
1974	8 797	7 788	4 733	2 476	252	474 c	24 520 b
1975	8 415	7 541	4 933	2 567	190	766 c	24 412 b
1976	7 793	7 766	5 172	2 575	391	568 c	24 264 b
1977	7 676	9 040	4 137	3 919	439	389 c	25 600 b
1978	7 077	8 951	3 768	2 808	349	310 c	23 264 b
1979	8 263	8 357	4 410	2 526	448	285 c	24 290 b
1980	9 553	8 400	4 800	2 287	361	293 c	25 694 b
1981	10 738	7 929	5 787	2 753	334	460 c	28 002 b
1982	10 767	7 449	6 337	2 564	332	1 268 c	28 718 b
1983	8 403	6 884	5 583	2 094	388	192	23 543 d
1984	8 401	6 951	5 876	2 542	450	455	24 675 d
1985	8 989	7 437	6 386	2 852	576	399	26 640 d
1986	10 239	6 653	5 949	4 145	510	396	27 892 d
1987	9 501	8 476	6 179	2 961	572	377	28 067 d
1988	10 176	7 339	7 596	3 435	713	75	29 334 d
1988-89	11 188	7 339	6 970	3 195	518	154	30 121 e
1989-90	11 605	6 633	7 561	3 646	498	146	33 856 e
1990-91	10 098	5 693	na	2 694	426	na	18 912 f
1991-92	10 035	na	na	2 745	448	na	na
1992-93	10 647	9 984	5 733	3 129	495	186	32 970
1993-94	na	na	na	3 185	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	8 902	na	na	2 225	na	na	na
1996-97	7 109	na	na	2 286	na	578	na
1997-98	9 428	na	na	2 389	na	na	na
1998-99	10 378	na	na	2 892	na	na	na
1999-00	10 498	na	na	na	423	306	na
2000-01	8 769	1 628	na	661	316	165	na

<sup>a</sup> Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately.

<sup>b</sup> Excludes Western Australia. <sup>c</sup> Includes the Australian Capital Territory. <sup>d</sup> Excludes the Australian Capital Territory and Western Australia. <sup>e</sup> Excludes the Australian Capital Territory. <sup>f</sup> Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

## Construction materials

### 265 Australian production of gravel, by state <sup>a</sup>

	New South Wales kt	Victoria kt	Queensland kt	South Australia kt	Tasmania kt	Northern Territory kt	Australia kt
1960	1 798	158	na	666	348	8	2 979
1961	1 473	3 089	na	926	622	5	6 115
1962	1 516	2 990	na	759	656	na	6 007
1963	1 883	3 743	na	1 066	929	na	7 747
1964	2 046	4 105	na	887	1 092	62	8 248
1965	2 292	3 662	na	555	1 260	59	7 884
1966	2 474	3 326	na	871	1 449	na	8 686
1967	2 329	3 683	na	935	1 468	na	9 193
1968	3 043	3 247	na	350	1 621	na	8 473
1969	3 118	2 834	1 155	918	1 531	na	10 501
1970	3 869	2 797	2 106	820	1 295	na	12 093
1971	4 021	3 599	2 392	847	915	1 074 <sup>b</sup>	12 849 <sup>c</sup>
1972	3 341	3 486	3 306	833	1 034	770 <sup>b</sup>	12 771 <sup>c</sup>
1973	3 652	3 634	4 447	694	1 093	922 <sup>b</sup>	14 441 <sup>c</sup>
1974	3 667	4 858	5 481	754	1 016	1 725 <sup>b</sup>	17 500 <sup>c</sup>
1975	3 530	4 732	4 874	458	1 063	1 524 <sup>b</sup>	16 181 <sup>c</sup>
1976	3 498	4 493	5 045	490	1 004	1 110 <sup>b</sup>	15 640 <sup>c</sup>
1977	3 224	4 743	4 126	1 098	1 219	1 073 <sup>b</sup>	15 483 <sup>c</sup>
1978	3 522	4 807	3 178	806	1 184	679 <sup>b</sup>	14 176 <sup>c</sup>
1979	4 354	4 918	3 377	394	1 176	1 786 <sup>b</sup>	16 005 <sup>c</sup>
1980	4 736	5 131	3 030	331	1 102	1 336 <sup>b</sup>	15 667 <sup>c</sup>
1981	4 612	4 740	3 525	125	1 077	561 <sup>b</sup>	14 639 <sup>c</sup>
1982	5 552	5 053	3 513	74	1 156	1 323 <sup>b</sup>	16 813 <sup>c</sup>
1983	4 080	4 478	3 205	74	1 238	857	13 931 <sup>d</sup>
1984	4 486	3 494	3 777	284	1 165	1 824	15 031 <sup>d</sup>
1985	4 666	5 206	3 297	2 258	1 171	1 793	18 393 <sup>d</sup>
1986	5 461	4 176	3 186	221	986	1 870	15 900 <sup>d</sup>
1987	4 992	4 334	2 797	207	832	2 203	15 365 <sup>d</sup>
1988	5 003	3 558	3 548	442	314	2 819	15 684 <sup>d</sup>
1988-89	5 464	3 753	4 247	213	107	2 243	16 050 <sup>e</sup>
1989-90	6 532	1 002	3 069	176	91	1 380	12 259 <sup>e</sup>
1990-91	6 091	1 131	na	415	35	na	7 672 <sup>g</sup>
1991-92	6 241	na	na	424	33	na	na
1992-93	5 823	1 780	2 788	555	47	1 090	12 141
1993-94	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	5 871	na	na	na	na	na	na
1996-97	7 925	na	na	na	na	2 764	na
1997-98	5 495	na	na	na	na	na	na
1998-99	5 220	3 939	na	239	61	1 097	na
1999-00	4 565	2 479	na	143	64	na	na
2000-01	3 664	3 556	na	58	41	174	na

<sup>a</sup> Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. <sup>b</sup> Includes the Australian Capital Territory. <sup>c</sup> Excludes Western Australia. <sup>d</sup> Excludes the Australian Capital Territory and Western Australia. <sup>e</sup> Excludes the Australian Capital Territory. <sup>f</sup> Victorian data after 1988-89 includes only establishments holding titles under the *Extractive Industries Act 1966*. Previous details represent estimates for all establishments. <sup>g</sup> Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. <sup>na</sup> Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, BMR, Canberra; state mines departments and their equivalents; ABARE.

## Construction materials

### 266 Australian production of crushed and broken stone, by state <sup>a</sup>

	New South Wales kt	Victoria kt	Queensland kt	Western Australia kt	South Australia kt	Tasmania kt	Northern Territory kt	Australia kt
1960	3 147	8 189	2 216	923	7 986	520	229	23 209
1961	3 855	11 478	1 900	964	8 747	580	216	27 741
1962	4 011	11 384	2 401	1 341	8 436	627	na	28 392
1963	3 870	12 583	2 574	1 562	8 496	937	na	30 246
1964	4 033	13 198	2 497	2 060	11 638	1 026	89	34 723
1965	6 802	15 784	2 817	2 510	10 948	1 361	na	40 810
1966	8 434	19 409	3 174	3 011	10 978	2 149	na	47 547
1967	8 590	18 301	4 762	3 107	10 709	1 176	na	47 011
1968	9 345	17 575	3 917	3 719	9 016	1 206	na	45 087
1969	9 217	15 865	4 030	4 517	12 418	1 377	na	47 830
1970	10 867	15 451	4 159	4 743	1 027	1 313	na	50 793 <b>b</b>
1971	10 020	17 505	4 665	5 234	10 817	1 365	670 <b>b</b>	50 275 <b>b</b>
1972	11 322	16 079	4 218	4 574	12 680	1 336	906 <b>b</b>	51 115
1973	11 452	15 805	6 933	4 451	10 084	1 558	999 <b>b</b>	51 281
1974	11 451	17 499	8 246	5 128	9 864	1 486	996 <b>b</b>	54 671
1975	13 196	18 382	9 454	5 166	9 242	1 495	1 278 <b>b</b>	58 213
1976	10 581	16 885	8 241	5 043	9 765	1 697	820 <b>b</b>	53 033
1977	9 728	17 884	9 411	5 031	9 618	1 621	1 104 <b>b</b>	54 398
1978	10 699	18 665	10 811	5 258	8 848	1 582	1 046 <b>b</b>	56 910
1979	12 081	19 115	12 588	5 801	4 146	1 707	1 090	56 498
1980	14 436	18 001	12 722	4 762	4 460	1 746	1 611 <b>b</b>	57 737
1981	14 543	14 073	15 784	7 397	3 759	1 562	992 <b>b</b>	58 110
1982	12 765	13 279	19 601	5 145	4 189	1 719	303	57 100 <b>c</b>
1983	10 185	13 527	16 592	4 272	2 435	1 609	495	49 115 <b>c</b>
1984	10 452	14 756	19 869	5 067	3 613	2 023	551	56 331 <b>c</b>
1985	12 641	20 539	20 692	6 596	4 066	1 981	959	67 474 <b>c</b>
1986	13 819	20 658	21 597	6 160	4 335	3 040	646	70 255 <b>c</b>
1987	13 135	19 526	20 433	5 743	3 600	2 488	353	65 278 <b>c</b>
1988	12 575	20 001	22 644	6 297	3 432	2 361	193	67 503 <b>c</b>
1988-89	14 861	22 763	22 724	na	3 567	2 525	270	66 710 <b>d</b>
1989-90	15 437	21 232	25 623	8 176	3 703	2 460	367	76 998 <b>d</b>
1990-91	15 488	14 854	na	na	3 571	2 065	na	35 977 <b>e</b>
1991-92	14 326	na	na	na	3 192	2 013	na	na
1992-93	14 725	28 517	20 189	3 839	4 402	2 533	451	74 656
1993-94	na	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na	na
1995-96	na	na	na	na	na	na	na	na
1996-97	16 292	na	na	na	na	na	516	na
1997-98	16 675	na	na	na	na	na	na	na
1998-99	15 171	na	na	na	na	na	na	na
1999-00	16 775	16 756	na	na	3 293	1 712	na	na
2000-01	17 620	21 864	na	na	3 445	1 548	628	na
2001-02	16 256	24	na	536	2 690	1 569	na	na

**a** Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately.

**b** Includes the Australian Capital Territory and the Northern Territory. **c** Excludes the Australian Capital Territory. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, BMR, Canberra; state mines departments and their equivalents; ABARE.



# 267 Summary of Australian statistics for copper

	Production					Consump- tion c	Exports d		
	Mine a	Smelter b	Refined				Volume	Value	Price e
			Primary	Secondary	Total				
	kt	kt	kt	kt	kt	kt	kt	\$m	\$/t
1960	111	72	71	5	76	72	51	27	640.0
1961	97	64	64	5	69	63	53	28	603.0
1962	109	91	79	5	84	77	39	28	600.0
1963	115	92	86	7	93	84	37	21	600.0
1964	106	83	80	8	88	99	33	21	645.0
1965	92	80	60	14	74	102	37	27	718.0
1966	111	97	90	10	100	108	30	36	944.0
1967	92	79	66	18	84	88	30	30	1 026.0
1968	109	103	84	17	101	105	38	40	1 099.0
1969	131	124	101	19	120	106	54	66	1 324.0
1970	158	120	104	21	125	114	70	86	1 317.0
1971	177	150	127	15	142	116	96	85	991.4
1972	186	150	139	17	156	112	109	91	942.3
1973	220	166	145	14	159	133	106	112	1 234.3
1974	251	200	162	12	174	120	133	177	1 298.2
1975	219	183	166	12	178	97	176	139	950.1
1976	218	170	161	15	176	119	139	157	1 143.3
1977	222	172	152	15	167	106	126	146	1 190.1
1978	222	167	152	14	166	127	102	114	1 189.8
1979	238	169	138	16	154	127	122	206	1 768.0
1980	242	182	145	20	165	128	120	250	1 956.6
1981	231	177	164	15	179	143	114	201	1 535.7
1982	245	180	160	11	171	131	110	156	1 474.5
1983	262	182	169	34	203	115	158	276	1 790.5
1984	236	188	171	26	197	118	126	226	1 592.5
1985	260	175	164	30	194	126	139	274	2 064.8
1986	248	179	164	21	185	117	125	248	2 111.2
1987	233	183	172	36	208	124	119	267	2 528.7
1988	238	193	196	27	223	128	157	510	3 391.2
1989	296	240	230	35	265	129	175	601	3 748.1
1990	330	235	247	24	271	118	230	765	3 519.2
1991	320	258	252	20	272	111	243	723	3 144.7
1992	378	315	300	13	313	123	258	770	3 233.0
1993	430	344	318	13	331	139	271	723	2 964.3
1994	418	337	340	20	360	150	305	816	3 222.5
1995	379	224	266	24	290	158	215	804	4 133.4
1996	548	264	311	24	314	162	363	993	3 149.8
1997	549	216	276	25	276	159	402	1 098	3 244.7
1998	619	211	279	25	279	160	488	1 298	2 823.4
1999	741	332	412	25	412	164	560	1 429	2 604.6
2000	832	387	484	25	484	165	621	1 931	3 115.3
2001	873	458	558	25	560	165	754	2 318	3 042.2

a Total metallic content of minerals produced. b Includes both primary and secondary (scrap) production of blister copper. c Primary refined; producers' shipments to domestic consumers plus imports. d Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal; value of metals contained in host mine and smelter products (for example, copper in lead concentrate or lead bullion) is not available separately and is included in the value of the mineral product or metal in which it is exported. e Mount Isa Mines, cathode, fct Townsville refinery, price discontinued end of June 2000. 2000 onwards based on average US\$ LME spot calendar price converted into A\$. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; Metallgesellschaft AG, *Metallstatistik*, Frankfurt.

## 268 Australian supply, disposal and prices of copper

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>									
Mine <sup>a</sup>	kt	362	438	547	576	691	796	876	876
Smelter	kt	238	250	252	223	234	387	419	458
Refined	kt	306	318	334	308	331	502	542	613
Primary	kt	282	294	310	283	306	477	517	563
Secondary	kt	24	24	24	25	25	25	25	25
<b>Exports <sup>b</sup></b>									
Ores and concentrates <sup>c</sup>	kt	426	520	890	1 097	1 227	936	1 150	1 271
Value	\$m	377	486	655	822	968	776	1 037	1 029
Refined <sup>d</sup>	kt	121	115	128	127	160	306	366	388
Value	\$m	420	442	352	372	398	840	1 249	1 131
<b>Consumption <sup>e</sup></b>	kt	150	180	185	185	185	190	190	190
<b>Export unit value</b>									
Ores and concentrates	A\$/t	884.2	935.6	736.6	749.1	789.3	829.1	902.0	809.2
Refined	A\$/t	3 482.2	3 825.2	2 747.2	2 942.1	2 479.8	2 749.2	3 409.7	2 918.1

<sup>a</sup> Total metallic content of minerals produced. <sup>b</sup> Value of metals contained in host mine and smelter products is not available separately and is included in the value of the mineral product or metal in which it is exported. <sup>c</sup> Gross weight of ores and concentrates. <sup>d</sup> Refinery shapes, unworked. <sup>e</sup> Refined copper domestic despatches and imports.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## 269 Australian exports of copper, by destination

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Ores and concentrates</b>								
Canada	15.3	0.0	0.0	8.5	0.0	10.0	0.0	0.0
China	51.9	121.1	191.1	168.0	317.2	225.5	285.1	453.2
Germany	0.8	15.2	53.2	63.0	71.2	8.6	0.9	0.0
India	0.0	0.0	5.5	49.9	171.8	267.0	340.4	453.7
Japan	334.4	214.3	404.7	505.3	392.0	332.6	271.5	261.9
Korea, Rep. of	9.3	40.0	57.6	62.0	189.1	111.2	39.9	20.3
Peru	23.6	0.0	0.0	0.0	0.0	5.0	0.0	0.0
Other	0.0	0.0	75.9	123.4	92.6	75.9	77.6	55.9
Total	435.3	390.6	788.0	980.0	1 233.9	1 035.8	1 015.3	1 245.1
Total Cu content <sup>s</sup>	120.0	105.4	223.7	283.9	361.2	302.6	292.5	353.3
<b>Refined</b>								
Chinese Taipei	43.4	27.6	23.0	24.2	45.5	73.2	81.9	90.9
European Union <sup>a</sup>	45.9	38.8	32.6	25.7	14.4	34.7	40.8	72.6
Indonesia	10.9	8.8	26.6	18.2	5.3	7.6	6.0	7.3
Japan	31.6	16.0	2.3	1.2	3.8	6.2	12.9	15.6
Korea, Rep. of	5.5	0.5	0.9	0.0	6.3	31.3	39.9	51.8
Malaysia	0.8	1.1	19.1	28.7	33.4	41.9	75.0	81.7
United Kingdom	18.0	0.6	0.0	0.0	0.0	36.7	15.1	0.0
Other	20.6	12.6	12.8	18.2	18.1	22.1	51.9	78.6
Total	176.7	106.0	117.3	116.1	126.8	253.8	323.4	398.6

<sup>a</sup> Excluding the United Kingdom. <sup>s</sup> ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

# Copper

## 270 World production, consumption, stocks and prices of copper

	Production				Consumption kt	Stocks c kt	Price	
	Mine kt	Smelter kt	Refined				US producer d US\$/lb	LME e US\$/t
			Secondary a kt	Total b kt				
1960	4 242	4 287	2 148	4 998	3 926	na	32.1	677.6
1961	4 394	4 364	2 173	5 144	4 271	na	29.9	632.8
1962	4 555	4 574	2 237	5 300	4 343	na	30.6	644.0
1963	4 624	4 635	2 341	5 406	4 607	na	30.6	644.0
1964	4 848	4 903	2 645	5 825	4 984	na	32.0	966.0
1965	5 070	5 119	2 850	6 181	5 033	na	35.0	1 288.0
1966	5 220	5 103	3 081	6 366	5 224	na	36.2	1 528.8
1967	5 062	4 897	2 872	6 004	5 032	na	38.2	1 135.0
1968	5 459	5 510	3 176	6 653	6 548	na	41.8	1 236.0
1969	5 935	5 965	3 452	7 205	7 136	na	47.5	1 464.0
1970	6 382	6 308	3 298	7 583	7 294	582	57.7	1 413.6
1971	6 458	6 374	3 155	7 393	7 295	610	51.4	1 080.5
1972	7 044	7 007	3 272	8 084	7 948	657	50.6	1 069.0
1973	7 498	7 286	3 639	8 525	8 754	394	58.9	1 781.1
1974	7 576	7 565	3 502	8 759	8 310	832	76.6	2 052.6
1975	7 185	7 280	2 699	8 177	7 445	1 744	63.2	1 232.2
1976	7 661	7 616	3 163	8 624	8 539	1 828	69.0	1 405.2
1977	7 856	7 810	3 109	8 878	9 057	1 985	66.2	1 308.3
1978	7 678	7 686	3 313	9 020	9 527	1 564	65.8	1 363.4
1979	7 767	7 738	3 668	9 181	9 848	1 116	92.2	1 978.1
1980	7 704	7 681	3 738	9 297	9 396	1 035	101.3	2 189.2
1981	8 164	8 036	3 671	9 545	9 522	1 133	84.2	1 740.2
1982	8 078	7 850	3 518	9 378	9 003	1 640	72.8	1 477.9
1983	8 101	8 379	3 688	9 694	9 099	1 709	76.5	1 590.1
1984	8 258	8 684	3 848	9 512	9 914	1 220	66.9	1 371.4
1985	8 365	8 933	3 837	9 689	9 665	1 074	67.0	1 415.5
1986	8 393	9 165	3 905	9 862	10 075	893	64.7	1 414.5
1987	8 747	9 287	3 996	10 160	10 449	522	81.1	1 764.9
1988	8 698	9 372	4 307	10 485	10 531	585	119.1	2 597.1
1989	9 025	9 720	4 250	10 858	10 969	636	129.5	2 838.8
1990	8 957	9 132	4 325	10 809	10 789	980	121.8	2 669.0
1991	9 099	9 066	4 317	10 688	10 695	1 090	107.9	2 338.1
1992	9 418	9 730	4 408	11 170	10 806	1 095	106.0	2 282.0
1993	9 475	9 671	4 948	11 306	10 996	1 275	91.6	1 910.8
1994	9 575	9 740	5 026	11 166	11 665	925	110.2	2 307.3
1995	10 180	9 745	5 337	11 817	12 152	874	138.3	2 935.6
1996	11 111	10 426	5 881	12 756	12 400	680	109.2	2 293.7
1997	11 482	10 759	5 557	13 599	13 080	1 021	106.8	2 277.1
1998	12 285	10 907	5 411	14 142	13 339	1 345	78.6	1 654.2
1999	12 757	11 480	5 289	14 463	14 024	1 472	75.9	1 572.6
2000	13 263	11 677	5 110	14 814	15 138	1 046	88.2	1 813.5
2001	13 602	12 014	5 031	15 545	14 616	1 725	76.9	1 577.5

a Includes direct use by manufacturers. b Excludes copper recovered from secondary materials by simple remelting. c Unwrought copper. d Average price for US producer cathodes. e LME average cash settlement price, grade A copper. Before December 1981, wirebars; from 1982 to 1986, higher grade copper. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; Metallgesellschaft AG, *Metallstatistik*, Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Copper

### 271 World copper production, by region and country

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Mine production a</b>								
Africa	673	640	635	617	648	502	462	530
Congo, Dem. Rep. of	30	35	40	40	35	33	33	33
South Africa	184	195	192	186	188	163	146	142
Zambia	384	342	340	331	379	271	249	312
Americas	5 338	5 857	6 596	6 957	7 328	7 779	7 808	8 026
Brazil	40	49	44	39	34	31	32	30
Canada	617	726	688	660	706	620	634	633
Chile	2 220	2 489	3 116	3 392	3 687	4 395	4 602	4 739
Peru	366	405	484	503	483	536	554	722
Mexico	298	334	341	390	384	382	365	367
United States	1 796	1 849	1 918	1 940	1 860	1 601	1 473	1 340
Asia	1 347	1 530	1 547	1 695	1 974	2 014	2 559	2 578
Armenia	1	1	2	7	9	10	12	14
China	396	445	439	496	487	520	589	565
India	46	47	48	37	48	34	32	32
Indonesia	334	462	526	548	809	790	1 006	1 047
Kazakhstan	215	233	238	316	338	373	430	470
Malaysia	25	21	20	19	14	10	0	0
Mongolia	119	120	125	125	128	128	134	108
Philippines	116	108	62	49	45	38	31	20
Uzbekistan	80	80	64	74	74	66	70	70
Europe	1 258	1 314	1 430	1 361	1 340	1 297	1 399	1 392
Bulgaria	76	76	85	76	41	53	76	80
Georgia	2	5.8	7	5	5	8	8	8
Poland	424	431	473	415	436	464	454	459
Portugal	130	130	110	107	115	100	76	83
Russian Federation	573	526	520	510	518	510	580	600
Sweden	79	84	72	87	74	71	78	74
Yugoslavia	74	75	70	74	71	52	56	31
Middle East	158	145	160	183	202	205	222	221
Iran	118	102	108	119	128	130	147	146
Turkey	40	43	52	65	74	74	75	75
Oceania	627	591	735	670	759	899	1 035	1 077
Australia	418	379	548	549	619	741	832	873
Papua New Guinea	209	213	187	112	152	188	203	204
Other countries	12	12	12	12	12	12	0	0
<b>Total</b>	<b>9 575</b>	<b>10 180</b>	<b>11 111</b>	<b>11 482</b>	<b>12 285</b>	<b>12 757</b>	<b>13 263</b>	<b>13 602</b>

*Continued*

# 271

World copper production, by region and country (continued)

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Smelter production <sup>b</sup></b>								
Africa	501	474	489	510	470	482	530	504
South Africa	158	154	148	164	153	149	173	136
Zambia	265	238	262	264	255	289	308	306
Americas	4 278	4 305	4 404	4 597	4 606	4 289	3 925	4 017
Canada	560	613	613	627	625	609	604	640
Chile	1 260	1 294	1 356	1 390	1 403	1 472	1 460	1 503
Mexico	277	298	301	360	337	371	337	337
Peru	315	347	328	323	356	350	340	379
United States	1 715	1 601	1 639	1 720	1 718	1 293	999	945
Asia	2 578	2 688	2 829	2 991	3 134	3 787	4 149	4 342
China	482	538	645	657	667	837	1 019	1 082
Japan	1 122	1 169	1 233	1 350	1 304	1 390	1 481	1 445
Kazakhstan	284	266	269	316	336	384	415	433
Korea, Rep. of	135	151	157	151	281	390	390	390
Philippines	200	242	202	173	162	162	160	217
Uzbekistan	80	80	100	116	74	72	75	75
Australia	337	224	264	216	211	332	387	458
Europe	2 058	2 062	2 442	2 454	2 467	2 586	2 686	2 694
Belgium	148	152	157	143	138	143	145	138
Germany	292	305	385	349	320	330	330	330
Poland	402	353	415	431	432	485	485	485
Russian Federation	507	540	570	570	630	758	758	758
Spain	188	160	271	313	330	319	330	280
Yugoslavia	87	87	125	114	94	54	54	54
Total	9 740	9 745	10 426	10 759	10 907	11 480	11 677	12 014
<b>Refined copper production</b>								
Africa	550	502	501	514	478	423	374	438
South Africa	130	132	116	127	123	116	100	103
Zambia	370	314	317	328	306	259	226	297
Americas	4 686	5 015	5 431	6 017	6 428	6 382	6 074	6 385
Canada	550	573	559	561	562	549	551	565
Chile	1 277	1 492	1 748	2 117	2 335	2 661	2 668	2 882
Peru	253	282	342	384	411	434	452	472
United States	2 220	2 280	2 347	2 465	2 489	2 130	1 803	1 790
Asia	2 877	3 276	3 414	3 635	3 834	4 120	4 606	4 820
China	736	1 080	1 119	1 179	1 211	1 174	1 371	1 427
Japan	1 119	1 188	1 251	1 279	1 277	1 342	1 437	1 426
Kazakhstan	279	256	267	301	325	362	395	422
Korea, Rep. of	222	233	246	265	369	451	471	476
Philippines	155	158	156	147	152	148	139	165
Uzbekistan	90	80	80	116	90	72	75	75
Australia	360	290	314	276	279	412	484	560
Europe	2 713	2 760	3 078	3 162	3 120	3 112	3 276	3 342
Belgium	375	376	386	373	368	388	423	423
Germany	592	616	671	674	696	696	710	709
Poland	405	407	425	441	447	471	486	499
Russian Federation	552	560	599	640	656	737	824	871
Spain	188	164	264	280	304	305	316	280
Total	11 166	11 817	12 756	13 599	14 142	14 463	14 814	15 545

<sup>a</sup> Metal content. <sup>b</sup> Metal produced in the form of blister and anodes from ores, concentrates, other primary materials and secondary blister produced from scrap.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

# Copper

## 272 World copper exports, by country

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Concentrates (Cu content)</b>								
Australia	120	105	224	284	361	303	293	353
Canada	218	256	391	498	414	264	480	622
Chile	692	831	1 123	1 107	1 169	1 532	1 780	1 798
Indonesia	269	353	507	429	504	485	644	649
Mexico	2	8	12	10	19	18	77	25
Papua New Guinea	206	228	191	95	182	184	186	102
Peru	31	47	50	74	63	48	80	93
Philippines	68	71	40	12	23	37	21	15
Portugal	139	130	123	116	112	110	81	92
United States	261	239	195	128	37	76	175	45
Other	94	81	55	176	230	388	316	377
World total	2 094	2 339	2 912	2 930	3 113	3 444	4 134	4 172
<b>Blister and anode copper</b>								
Australia	6	0	0	0	0	0	0	0
Belgium	19	30	18	3	2	12	18	12
Chile	198	178	227	158	157	157	170	155
Congo, Dem. Rep. Of	0	0	0	0	0	0	0	0
Finland	27	14	35	39	33	32	42	52
Mexico	120	124	117	121	39	31	22	24
Namibia	26	25	18	21	na	na	na	na
Peru	98	89	83	57	45	31	24	31
South Africa	25	27	25	28	16	0	1	35
Spain	35	27	27	34	28	26	27	35
Other	19	39	24	155	170	173	145	193
World total	573	553	576	616	489	462	448	536
<b>Refined copper</b>								
Australia	176	106	117	116	127	254	323	397
Belgium	152	172	129	146	145	172	199	241
Canada	389	409	460	381	356	294	289	310
Chile	1 193	1 401	1 604	2 032	2 248	2 548	2 518	2 696
Congo, Dem. Rep. Of	14	5	17	na	0	0	0	0
Germany	142	131	243	147	110	140	94	108
Japan	114	159	165	158	293	318	299	416
Kazakhstan	123	217	262	288	322	354	393	399
Peru	218	252	320	362	348	416	377	433
Philippines	137	120	126	90	102	143	129	157
Poland	255	194	199	209	182	221	240	208
Russian Federation	360	662	493	521	543	634	650	651
Singapore	98	197	192	202	106	137	77	61
United States	158	217	170	93	87	26	97	23
Zambia	361	292	276	304	228	206	217	296
Other	424	465	597	776	1 212	884	761	814
World total	4 300	4 993	5 370	5 823	6 407	6 746	6 664	7 210

na Not applicable or not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## 273 World copper imports, by country

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Ores and concentrates</b>								
Brazil	100	na	na	103	105	146	122	136
Canada	182	150	136	139	124	138	212	220
China <sup>a</sup>	27	147	214	234	296	313	453	564
Finland	73	73	127	116	136	129	114	126
Germany	162	166	172	160	151	210	177	259
Japan	859	965	958	942	994	1 062	1 111	1 040
Korea, Rep. of	107	117	110	130	243	292	294	293
Spain	130	117	184	222	234	251	234	226
United States	83	130	74	46	218	143	0	122
Other	24	24	77	303	216	326	455	307
<b>Total</b>	<b>1 745</b>	<b>1 888</b>	<b>2 051</b>	<b>2 397</b>	<b>2 717</b>	<b>3 009</b>	<b>3 173</b>	<b>3 292</b>
<b>Blister and anode copper</b>								
Belgium	148	131	123	101	94	140	215	149
China <sup>a</sup>	22	40	55	111	96	130	125	91
Germany	82	50	81	63	45	37	32	27
Japan	48	21	6	5	2	40	19	11
Korea, Rep. of	87	80	87	109	63	60	48	59
Spain	24	31	14	3	2	7	18	16
United States	120	159	103	157	181	175	195	218
Other	65	69	81	73	146	102	107	156
<b>Total</b>	<b>595</b>	<b>580</b>	<b>551</b>	<b>622</b>	<b>628</b>	<b>690</b>	<b>759</b>	<b>726</b>
<b>Refined copper</b>								
Belgium	173	111	76	102	101	71	41	44
Brazil	67	92	103	117	138	116	158	141
China	72	102	150	88	163	405	668	835
Chinese Taipei	549	567	546	590	585	656	629	541
France	463	494	456	528	586	550	586	564
Germany	523	543	450	527	579	565	690	528
Hong Kong, China	23	51	89	138	268	48	54	60
Italy	394	406	438	450	565	625	603	650
Japan	355	390	460	354	273	230	203	156
Korea, Rep. of	263	312	351	396	487	485	419	380
Malaysia	107	114	144	161	133	158	166	161
Singapore	94	262	191	212	198	116	58	67
United Kingdom	259	274	328	366	349	303	339	311
United States	467	429	620	647	725	916	1 022	1 199
Other	822	866	961	925	975	1 057	1 077	912
<b>Total</b>	<b>4 631</b>	<b>5 011</b>	<b>5 362</b>	<b>5 600</b>	<b>6 125</b>	<b>6 300</b>	<b>6 712</b>	<b>6 548</b>

<sup>a</sup> Imported from western world only. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Gemstones

### 274 Summary of Australian statistics for gemstones

	Exports			Imports
	Diamonds \$m	Opals \$m	Sapphires <sup>a</sup> \$m	Gem diamonds \$m
1960	0.24	2.07	na	2.47
1961	0.44	2.81	na	2.38
1962	0.41	6.21	na	2.37
1963	0.37	5.39	na	2.62
1964	0.35	5.40	na	2.96
1965	0.42	5.33	na	3.69
1966	0.43	7.65	na	3.94
1967	0.33	8.62	na	4.23
1968	0.37	10.65	na	4.23
1969	0.39	12.21	3.09	5.25
1970	0.51	11.97	3.21	5.45
1971	0.77	11.20	3.32	6.57
1972	0.81	13.80	2.80	7.44
1973	1.63	17.68	2.91	11.74
1974	4.86	12.70	2.63	15.01
1975	4.61	14.60	3.01	15.45
1976	4.58	22.62	3.61	20.04
1977	5.28	19.21	4.03	24.05
1978	11.99	26.69	10.31	34.25
1979	13.25	24.98	17.17	33.36
1980	12.90	25.55	10.81	50.38
1981	11.16	23.69	14.57	38.25
1982	9.86	16.73	14.46	32.59
1983	36.54	22.69	13.48	31.48
1984	25.90	22.76	9.89	36.14
1985	29.83	17.67	7.78	48.16
1986	180.00	24.41	12.86	55.38
1987	285.00	45.99	19.95	66.62
1988	349.42	67.54	23.13	42.88
1989	410.19	77.19	31.60	108.16
1990	433.13	84.87	17.49	106.68
1991	453.80	83.67	11.27	110.99
1992	574.60	77.13	11.46	105.71
1993	482.30	78.07	22.46	90.24
1994	485.40	96.24	18.27	96.40
1995	480.24	99.79	13.65	103.60
1996	442.99	101.85	10.97	112.41
1997	421.19	75.64	8.52	154.85
1998	621.78	63.20	7.70	150.88
1999	560.57	53.86	5.94	172.28
2000	714.96	75.96	8.35	223.34
2001	517.01	69.78	6.43	241.97

<sup>a</sup> Excludes cut and polished sapphires from 1 July 1999, for which data are not available separately.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest*; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964*, Bureau of Mineral Resources, Canberra.



## 275 Australian supply and disposal of gemstones

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Diamonds</b>									
Production	'000 ct	43 789	40 692	41 993	40 175	40 843	29 784	26 647	26 176
<b>Exports</b>									
Unsorted s	'000 ct	24 519	23 357	47 441	40 387	52 218	51 703	42 386	21 722
	\$m	332	424	388	354	559	495	630	428
Sorted									
Gem	'000 ct	3 022	30	28	33	32	23	48	39
	\$m	147	54	53	66	62	64	85	89
Industrial	'000 ct	174.74	64.68	59.95	2.29	0.68	0.30	0.33	0.98
	\$m	6.42	2.37	2.12	0.75	1.28	0.74	0.62	0.18
Total exports	\$m	485	480	443	421	622	561	715	517
<b>Imports</b>									
Gem diamonds	\$m	96	104	112	155	151	172	223	242
<b>Other gemstones</b>									
<b>Exports</b>									
Opals	\$m	96	100	102	76	63	54	76	70
Sapphires a	\$m	18	14	11	9	8	6	8	6
Others b	\$m	23	22	20	16	14	11	15	13

a Excludes cut and polished sapphires from 1 July 1999, for which data are not available separately. b Includes cut and polished sapphires from 1 July 1999. s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest*, Perth; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## 276 World production of natural gem and cheap gem diamonds

	1993	1994	1995	1996	1997	1998	1999	2000
	million ct	million ct	million ct	million ct	million ct	million ct	million ct	million ct
Angola	0.15	0.30	0.67	0.92	1.31	2.76	2.13	2.15
Australia	41.88	43.79	40.69	41.99	40.18	40.84	29.78	26.65
Botswana	14.73	15.55	16.80	17.71	20.11	19.77	21.35	21.40
Congo, Dem. rep. of	15.63	16.26	22.02	22.24	20.98	21.36	22.00	22.00
Namibia	1.14	1.31	1.38	1.40	1.42	1.47	1.63	1.65
Russian Federation	16.00	16.30	16.90	19.20	19.40	19.80	16.20	16.50
South Africa	10.18	10.85	9.68	9.95	10.09	10.71	10.02	10.00
Other	4.49	4.44	3.66	3.39	3.81	3.29	6.89	9.65
Total	104.20	108.80	111.80	116.80	117.30	120.00	110.00	110.00

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; British Geological Survey, *World Mineral Statistics*, Nottingham England.

## Gold

### 277 Summary of Australian statistics for gold

	Mine production t	Exports		Price c	
		Volume a t	Value b \$m	A\$/oz	US\$/oz
1960	34	82	79	31.23	35.00
1961	33	37	34	31.29	35.00
1962	33	12	10	31.23	35.00
1963	32	17	15	31.32	35.00
1964	30	15	13	31.41	35.00
1965	27	27	23	31.36	35.00
1966	29	29	23	31.40	35.00
1967	25	22	17	31.40	35.00
1968	24	16	13	34.71	38.68
1969	22	22	21	36.92	41.09
1970	19	12	6	32.22	35.95
1971	21	7	3	36.15	41.16
1972	23	14	13	49.02	58.44
1973	17	9	11	68.43	97.59
1974	16	12	23	111.39	159.62
1975	16	8	17	122.87	161.23
1976	16	15	40	102.30	124.94
1977	19	14	43	133.37	147.98
1978	20	8	42	168.88	193.44
1979	19	10	59	271.77	303.22
1980	17	7	90	537.37	612.52
1981	18	7	56	398.19	458.06
1982	27	13	136	371.97	375.76
1983	31	21	270	469.65	423.83
1984	40	32	418	409.94	360.29
1985	59	50	668	455.70	317.28
1986	75	56	972	554.15	367.76
1987	110	85	1 694	639.18	446.43
1988	157	139	2 642	557.34	433.45
1989	204	166	2 559	483.54	381.49
1990	244	238	3 424	493.94	384.35
1991	236	259	3 684	465.21	362.29
1992	244	298	4 458	467.74	343.67
1993	248	275	4 672	530.94	359.89
1994	255	277	4 664	527.92	384.09
1995	253	316	5 251	521.02	384.15
1996	289	325	5 223	497.98	387.72
1997	314	340	4 912	446.17	331.14
1998	310	504	7 621	469.17	294.23
1999	300	334	4 720	433.07	279.08
2000	296	296	4 634	480.37	279.28
2001	280	304	5 086	521.30	269.88

a Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal of which gold is the predominant constituent. b Value of metal contained in host mine and smelter products (for example, gold in copper concentrates or lead bullion) is not separately available; this is included in the value of the mineral product or metal product in which it is exported. c Average London AM fix.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; London Bullion Market Association; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## 278 Australian gold production, imports and exports

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Production</b>									
Mine	t	255.0	253.1	289.0	314.1	310.3	299.7	296.4	280.1
Refined primary									
Australian origin	t	245.8	249.7	290.2	303.4	264.0	296.1	302.2	288.0
Overseas origin	t	45.7	39.3	34.9	29.3	17.6	13.2	15.1	16.8
Refined secondary									
Australian origin	t	8.9	8.4	3.6	0.8	11.0	4.6	7.6	23.3
Overseas origin	t	2.3	0.3	0.5	8.2	115.6	61.8	24.4	45.1
<b>Exports</b>									
Refined and unrefined bullion									
Chinese Taipei	t	0.5	0.5	0.6	5.2	18.0	19.0	17.7	15.7
Hong Kong, China	t	23.6	11.0	13.3	49.7	41.5	31.6	25.5	49.1
India	t	0.1	0.1	0.0	0.4	11.5	3.3	0.5	9.8
Japan	t	80.7	71.0	28.4	14.0	25.6	21.7	23.1	16.0
Korea, Rep. of	t	43.4	86.6	180.5	128.0	82.1	39.6	58.1	45.1
Malaysia	t	16.4	15.5	8.4	9.8	0.6	6.6	7.9	5.9
Middle East	t	0.5	0.0	0.9	2.6	14.5	6.6	6.4	28.2
Singapore	t	82.8	92.8	49.6	99.8	61.8	136.4	117.9	66.8
Switzerland	t	1.2	12.3	18.6	18.3	54.9	8.5	1.5	4.5
Thailand	t	14.3	15.0	13.3	9.4	8.5	8.9	8.3	5.1
United Kingdom	t	8.3	6.7	9.9	1.2	122.2	40.4	26.6	54.6
Other	t	2.8	3.1	1.6	2.1	62.7	11.6	2.9	2.9
Total	t	274.7	314.5	325.2	340.3	503.9	334.2	296.4	303.6
Australian origin s	t	228.8	276.5	289.8	302.7	370.7	259.2	256.9	241.8
	\$m	3 856.6	4 592.2	4 656.6	4 369.3	5 590.0	3 616.7	4 019.4	4 041.9
Overseas origin s	t	47.9	39.6	35.4	37.5	133.2	75.0	39.5	61.8
	\$m	807.6	658.9	566.5	542.5	2 030.8	1 102.9	615.1	1 044.6
<b>Imports</b>									
Refined and unrefined	\$m	771.4	726.7	639.9	794.9	3 158.8	1 999.7	1 643.3	2 145.6
<b>Price a</b>	\$/oz	527.92	521.02	497.98	446.17	469.17	433.07	480.37	521.30

a Average London AM fix price, expressed in Australian dollars. s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; London Bullion Market Association; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## Gold

### 279 Australian gold production, by state

	New South Wales t	Victoria t	Queensland t	South Australia t	Western Australia t	Tasmania t	Northern Territory t	Australia t
<b>Mine production</b>								
1980	0.57	0.04	0.68	na	11.23	1.31	3.19	17.02
1981	0.59	0.08	1.51	na	11.72	1.95	2.50	18.35
1982	0.61	0.10	0.58	na	20.60	1.74	3.32	26.95
1983	0.67	0.11	1.06	na	23.92	2.08	2.74	30.58
1984	1.11	0.41	1.75	na	32.11	1.93	2.99	40.30
1985	1.54	0.96	9.28	na	41.20	2.33	3.22	58.53
1986	0.96	1.15	11.12	na	53.88	2.67	5.30	75.10
1987	4.25	1.21	15.43	0.00	78.08	2.23	8.71	109.90
1988	5.63	1.77	24.78	0.01	110.75	2.03	11.97	156.95
1989	8.75	1.84	27.72	0.28	146.61	1.76	17.06	204.02
1990	8.05	3.93	29.73	0.89	180.79	1.68	19.04	244.10
1991	6.33	3.76	27.06	0.76	179.44	1.62	17.30	236.28
1992	5.65	3.35	32.61	1.05	181.29	1.15	18.64	243.74
1993	8.58	4.07	32.43	0.93	183.49	1.32	17.09	247.90
1994	8.13	3.83	30.67	1.10	192.48	1.39	17.42	255.01
1995	10.03	4.30	28.76	0.97	189.84	0.75	18.44	253.08
1996	11.31	4.52	28.65	1.25	220.19	1.74	21.89	289.03
1997	11.71	4.82	29.40	1.64	238.04	4.15	24.32	314.09
1998	14.76	4.89	32.38	1.74	231.98	4.18	20.38	310.32
1999	21.04	4.63	34.15	1.77	210.92	4.95	22.29	299.75
2000	18.54	4.22	37.01	2.94	203.30	6.66	23.09	296.41
2001	16.99	3.48	31.67	4.28	195.24	6.14	20.37	280.08
<b>Share of total</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	
1980	3.35	0.24	4.00	na	65.98	7.70	18.74	
1981	3.22	0.44	8.23	na	63.87	10.63	13.62	
1982	2.26	0.37	2.15	na	76.44	6.46	12.32	
1983	2.19	0.36	3.47	na	78.22	6.80	8.96	
1984	2.75	1.02	4.34	na	79.68	4.79	7.42	
1985	2.63	1.64	15.86	na	70.39	3.98	5.50	
1986	1.28	1.53	14.81	na	71.74	3.56	7.06	
1987	3.87	1.10	14.04	0.00	71.04	2.03	7.93	
1988	3.59	1.13	15.79	0.01	70.57	1.29	7.63	
1989	4.29	0.90	13.59	0.14	71.86	0.86	8.36	
1990	3.30	1.61	12.18	0.36	74.06	0.69	7.80	
1991	2.68	1.59	11.45	0.32	75.94	0.69	7.32	
1992	2.32	1.38	13.38	0.43	74.38	0.47	7.65	
1993	3.46	1.64	13.08	0.37	74.02	0.53	6.89	
1994	3.19	1.50	12.03	0.43	75.48	0.55	6.83	
1995	3.96	1.70	11.36	0.38	75.01	0.30	7.28	
1996	3.91	1.56	9.91	0.43	76.18	0.60	7.57	
1997	3.73	1.54	9.36	0.52	75.79	1.32	7.74	
1998	4.76	1.58	10.43	0.56	74.75	1.35	6.57	
1999	7.02	1.55	11.39	0.59	70.37	1.65	7.44	
2000	6.25	1.42	12.49	0.99	68.59	2.25	7.79	
2001	6.06	1.24	11.31	1.53	69.71	2.19	7.27	

na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

# 280

## World supply, demand and price of gold

	Unit	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Supply</b>										
<b>Mine production</b>										
Australia	t	248	255	253	289	314	310	300	296	280
Asia	t	172	176	188	208	214	264	276	276	310
Canada	t	153	146	150	165	172	164	158	155	157
China	t	119	121	133	145	149	160	156	164	173
Europe	t	25	27	28	29	27	27	24	20	20
Latin America	t	233	256	286	308	316	339	381	378	376
Russian Federation	t	165	158	142	133	138	127	138	154	165
South Africa	t	620	584	522	495	493	464	450	428	394
Other Africa	t	111	119	132	129	146	169	185	193	221
United States	t	332	326	319	329	362	366	342	355	335
Other	t	114	115	122	133	149	146	158	164	174
Total mine production	t	2 291	2 282	2 276	2 361	2 479	2 538	2 567	2 584	2 602
Forward sales and option hedging	t	142	105	475	142	504	97	506	– 15	– 157
Net official sales	t	468	130	167	279	326	380	478	489	530
Net scrap sales	t	576	617	624	640	624	1 088	605	606	680
Net other sales	t	0	0	84	109	305	0	0	292	115
Total supply <b>a</b>	t	3 477	3 134	3 626	3 531	4 238	4 103	4 157	3 970	3 933
<b>Demand</b>										
<b>Fabrication consumption</b>										
Jewellery	t	2 560	1 627	2 805	2 856	3 350	3 157	3 140	3 177	3 067
Electronics	t	178	189	204	209	235	225	246	283	203
Dentistry	t	63	64	67	68	70	64	66	69	68
Official coins	t	121	72	87	63	99	127	133	48	56
Medals and unofficial coins	t	25	27	35	33	42	46	46	58	55
Other	t	100	105	110	114	115	106	100	104	90
Total fabrication	t	3 048	2 084	3 308	3 342	3 911	3 726	3 732	3 739	3 526
Net bullion purchases	t	429	1 051	318	189	327	377	424	217	232
Total demand <b>a</b>	t	3 477	3 134	3 626	3 531	4 238	4 103	4 157	3 970	3 933
Gold price <b>b</b>	US\$/oz	359.89	384.09	384.15	387.72	331.14	294.23	279.08	279.28	269.88

**a** Total supply is defined as the flow of new mine output, and the net sale of aboveground stocks, while total demand is equal to net gold purchases. This classification of annual gold flows is symmetric, so that total annual supply equals total annual demand. **b** Average London AM fix price, expressed in US dollars.

Sources: ABARE, *Australian Commodities*, Canberra; Gold Fields Mineral Services Ltd, *Gold*, London; London Bullion Market Association.

# Gypsum

## 281 Summary of Australian statistics for gypsum

	Production kt	Volume kt	Exports <sup>a</sup>	
			Value \$'000	Unit value \$/t
1960	590.2	87.0	479	5.51
1961	619.7	90.0	570	6.33
1962	641.0	141.6	747	5.27
1963	737.1	146.1	715	4.89
1964	807.8	208.8	1 008	4.83
1965	846.9	140.9	747	5.30
1966	814.4	235.2	1 100	4.68
1967	928.8	211.0	879	4.17
1968	857.3	251.9	1 135	4.51
1969	912.1	232.8	1 006	4.32
1970	845.4	218.4	1 051	4.81
1971	889.2	258.3	1 251	4.84
1972	959.1	282.3	1 444	5.12
1973	1 165.2	437.3	2 128	4.87
1974	1 068.9	303.2	1 778	5.86
1975	932.6	215.8	1 539	7.13
1976	941.9	187.7	1 527	8.13
1977	916.0	190.5	1 624	8.52
1978	939.9	181.0	1 640	9.06
1979	1 230.2	423.0	3 105	7.34
1980	1 309.3	389.3	3 814	9.80
1981	1 752.3	645.2	6 861	10.63
1982	1 863.7	604.5	7 982	13.20
1983	1 509.8	800.0	11 044	13.81
1984	1 931.2	726.0	9 653	13.30
1985	1 744.5	516.0	8 362	16.21
1986	1 671.0	423.2	7 702	18.20
1987	1 811.9	195.4	2 968	15.19
1988	1 655.9	116.2	1 391	11.97
1988-89	1 834.6	68.1	1 048	15.39
1989-90	1 885.5	na	na	na
1990-91	1 381.7	53.2	759	14.28
1991-92	1 347.5	160.7	1 775	11.04
1992-93	1 589.5	161.6	1 807	11.19
1993-94	1 691.6	151.7	2 036	13.42
1994-95	1 995.5	231.1	2 993	12.95
1995-96	1 916.3	85.6	1 476	17.24
1996-97	2 392.6	116.9	2 134	18.25
1997-98	3 052.3	290.9	6 323	21.73
1998-99	3 465.6	988.8	18 781	18.99
1999-00	3 796.5	1 121.2	21 059	18.78
2000-01	3 191.3	724.4	16 096	22.22
2001-02	na	1 010.0	21 835	21.62

<sup>a</sup> Raw gypsum. Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.

## 282 Australian production of gypsum, by state

	New South Wales kt	Victoria kt	Queensland kt	South Australia kt	Western Australia kt	Australia kt
1960	97.0	102.0	na	346.2	44.9	590.2
1961	98.8	81.5	na	393.5	45.9	619.7
1962	73.0	80.0	na	435.6	52.5	641.0
1963	63.2	116.3	na	505.9	51.6	737.1
1964	65.6	105.9	na	590.5	45.7	807.8
1965	59.3	171.3	na	568.9	47.4	846.9
1966	45.7	113.1	na	613.1	42.6	814.4
1967	43.2	227.7	na	617.2	40.7	928.8
1968	32.8	78.7	na	640.1	105.6	857.3
1969	32.1	85.7	na	728.8	65.4	912.1
1970	39.0	47.6	na	667.4	91.4	845.4
1971	36.4	46.3	na	652.7	153.9	889.2
1972	39.1	42.1	na	721.5	156.5	959.1
1973	32.8	43.7	na	921.9	166.8	1 165.2
1974	42.6	43.0	na	769.8	213.5	1 068.9
1975	34.2	54.1	na	759.3	85.1	932.6
1976	36.2	69.0	na	721.0	115.8	941.9
1977	33.6	84.8	na	694.0	103.7	916.0
1978	18.0	107.4	na	648.1	166.3	939.9
1979	26.8	201.2	na	782.3	219.9	1 230.2
1980	25.0	269.4	na	768.6	246.3	1 309.3
1981	20.2	282.8	na	1 017.2	432.0	1 752.3
1982	17.4	235.9	na	1 159.3	451.2	1 863.7
1983	14.7	79.3	na	924.0	491.9	1 509.8
1984	38.9	236.4	na	1 018.2	637.7	1 931.2
1985	51.0	239.8	na	1 001.9	451.8	1 744.5
1986	47.3	173.4	na	1 135.8	314.5	1 671.0
1987	34.5	412.0	na	1 229.4	136.0	1 811.9
1988	33.7	233.0	na	1 277.2	112.0	1 655.9
1988-89	27.8	241.4	na	1 399.4	166.0	1 834.6
1989-90	29.0	301.5	na	1 400.0	155.0	1 885.5
1990-91	27.5	49.2	na	1 222.5	82.5	1 381.7
1991-92	18.7	53.1	na	1 173.9	101.8	1 347.5
1992-93	24.0	180.2	na	1 260.5	124.8	1 589.5
1993-94	na	176.8	3.8	1 315.8	195.2	1 691.6
1994-95	69.0	193.1	24.9	1 478.9	229.6	1 995.5
1995-96	37.3	198.7	25.6	1 401.8	252.9	1 916.3
1996-97	43.2	501.5	40.6	1 555.3	251.9	2 392.6
1997-98	105.2	479.8	36.4	1 596.0	834.9	3 052.3
1998-99	174.4	404.9	29.6	1 601.3	1 255.5	3 465.6
1999-00	161.7	462.8	11.0	1 824.1	1 336.9	3 796.5
2000-01	198.2	437.7	27.0	1 615.2	913.2	3 191.3

na Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.

# Gypsum

## 283 Australian exports of gypsum

	Raw <sup>a</sup>							
					Total		Calcined	
	Indonesia kt	New Zealand kt	Singapore kt	Other kt	Volume kt	Value \$'000	Volume t	Value \$'000
1960	0.0	72.4	0.0	14.6	87.0	479	na	na
1961	0.0	70.3	0.0	19.7	90.0	570	na	na
1962	0.0	80.4	0.0	61.3	141.6	747	na	na
1963	0.0	78.2	0.0	67.9	146.1	715	na	na
1964	0.0	106.0	0.0	102.8	208.8	1 008	na	na
1965	5.1	102.2	0.0	33.6	140.9	747	na	na
1966	5.6	109.7	0.0	119.9	235.2	1 100	na	na
1967	14.0	87.7	0.0	109.3	211.0	879	na	na
1968	10.6	85.8	0.0	155.6	251.9	1 135	na	na
1969	21.1	101.5	17.0	93.2	232.8	1 006	na	na
1970	11.7	104.8	18.8	83.2	218.4	1 051	na	na
1971	15.9	100.3	12.1	129.9	258.3	1 251	na	na
1972	23.6	107.7	26.3	124.6	282.3	1 444	na	na
1973	26.2	147.5	42.1	221.4	437.3	2 128	na	na
1974	30.6	173.1	14.9	84.6	303.2	1 778	na	na
1975	15.6	151.7	27.3	21.2	215.8	1 539	na	na
1976	34.5	122.9	27.5	2.8	187.7	1 527	na	na
1977	37.9	113.0	15.9	23.8	190.5	1 624	na	na
1978	29.7	84.5	16.2	50.6	181.0	1 640	na	na
1979	148.1	63.7	49.7	161.5	423.0	3 105	1 696	223
1980	197.9	98.3	42.9	50.2	389.3	3 814	2 003	172
1981	183.0	104.6	67.1	290.5	645.2	6 861	1 771	188
1982	173.6	124.5	88.0	218.5	604.5	7 982	2 350	263
1983	174.4	98.2	110.4	416.9	800.0	11 044	3 187	416
1984	251.4	128.2	96.9	249.5	726.0	9 653	6 196	901
1985	192.6	143.0	57.0	123.5	516.0	8 362	4 751	728
1986	148.1	118.1	38.4	118.7	423.2	7 702	5 348	893
1987	15.5	122.7	0.0	57.2	195.4	2 968	4 866	848
1988	0.0	116.2	0.0	0.0	116.2	1 391	4 704	845
1988-89	0.1	68.0	0.0	0.0	68.1	1 048	3 940	752
1989-90	0.1	na	0.0	na	na	na	10 437	1 032
1990-91	0.0	15.5	0.0	37.6	53.2	759	5 702	1 100
1991-92	0.0	97.2	0.0	63.5	160.7	1 775	6 128	1 318
1992-93	0.0	111.5	12.0	38.1	161.6	1 807	8 610	1 958
1993-94	0.0	101.6	0.0	50.1	151.7	2 036	9 986	2 408
1994-95	0.0	155.2	12.4	63.5	231.1	2 993	8 836	2 338
1995-96	0.2	32.3	0.0	53.1	85.6	1 476	11 477	3 212
1996-97	1.3	0.4	0.1	115.0	116.9	2 134	12 012	3 487
1997-98	30.3	0.6	0.1	259.9	290.9	6 323	8 279	2 722
1998-99	38.5	0.1	0.0	950.2	988.8	18 781	6 926	2 046
2000-01	0.0	0.4	0.0	724.0	724.4	16 096	2 576	916
2001-02	0.0	0.1	0.0	1 009.8	1 010.0	21 835	779	494

<sup>a</sup> Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.



# 284 World mine production of gypsum, by country

	Australia	Canada	China a	France	Japan	Spain	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1960	590	4 620	na	3 777	735	2 487	8 913	19 520	40 642
1961	620	4 591	na	3 836	724	3 052	8 618	20 217	41 658
1962	641	4 837	na	3 997	800	3 557	8 221	22 653	44 706
1963	737	5 381	na	4 208	782	4 598	9 424	21 608	46 738
1964	808	5 770	na	4 913	751	2 854	9 692	21 951	46 738
1965	847	5 720	na	5 013	649	2 855	9 104	20 518	44 706
1966	814	5 427	na	5 272	597	2 947	8 751	20 898	44 706
1967	929	4 471	na	5 190	584	2 947	8 522	22 064	44 706
1968	857	5 664	na	5 162	572	3 963	9 235	23 064	48 516
1969	912	6 334	na	6 055	569	4 064	9 108	23 557	50 599
1970	845	5 844	na	6 088	581	4 288	8 584	24 570	50 800
1971	889	6 169	na	5 111	536	4 200	9 451	26 644	53 000
1972	959	7 200	na	5 850	465	4 100	11 840	27 236	57 650
1973	1 165	7 540	na	6 160	460	4 100	12 330	29 105	60 860
1974	1 069	7 470	na	6 220	na	4 400	10 890	31 941	61 990
1975	933	5 700	na	5 800	na	4 200	8 800	31 567	57 000
1976	942	6 002	na	5 900	na	4 200	10 868	34 858	62 770
1977	916	7 234	na	6 032	na	5 482	12 147	39 894	71 705
1978	940	8 075	1 500	6 036	na	5 369	13 509	40 280	75 709
1979	1 230	8 098	3 630	6 240	na	5 275	13 272	43 615	81 360
1980	1 309	7 209	3 360	5 889	na	5 223	11 227	43 150	77 367
1981	1 752	7 025	3 450	6 147	na	5 223	10 430	42 129	76 156
1982	1 864	5 987	3 540	6 039	6 363	5 048	9 560	33 913	72 314
1983	1 510	7 507	4 260	5 544	5 845	5 620	11 688	36 695	78 669
1984	1 931	7 756	4 810	5 400	6 100	5 365	12 990	36 378	80 730
1985	1 744	8 400	5 700	5 400	6 300	5 500	13 360	38 706	85 110
1986	1 671	8 500	6 500	5 500	6 300	5 500	14 300	39 309	87 580
1987	1 812	8 600	6 800	5 400	6 300	5 500	14 300	39 680	88 160
1988	1 656	8 500	8 100	5 400	6 300	5 500	14 870	49 534	99 860
1989	1 835	8 700	8 100	5 700	6 300	5 500	16 000	46 385	98 520
1990	1 886	8 200	8 000	5 620	6 350	5 000	14 550	48 055	97 660
1991	1 382	8 000	8 100	5 600	6 350	5 000	14 022	45 481	93 935
1992	1 348	7 054	10 977	5 715	5 443	4 990	14 759	47 257	97 791
1993	1 590	7 345	9 616	4 536	4 990	6 804	14 344	44 504	93 623
1994	1 692	8 500	10 500	5 000	5 300	7 250	17 200	45 735	101 000
1995	1 995	7 960	11 000	5 000	3 900	7 500	16 600	44 297	98 100
1996	1 916	8 330	8 000	5 000	5 350	8 000	17 500	45 802	99 700
1997	2 393	8 500	7 800	5 000	5 500	7 400	18 600	49 309	104 000
1998	3 052	8 100	9 000	4 500	5 300	7 400	19 000	51 128	107 000
1999	3 466	9 470	9 000	4 500	5 500	7 500	22 400	50 940	107 000
2000	3 796	8 550	6 800	4 500	5 600	7 500	19 500	45 233	106 000
2001	3 191	9 000	6 800	4 500	6 000	7 500	18 800	54 209	110 000

a Excludes Hong Kong. na Not available.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries*, Washington DC; ABARE.

## Iron ore and steel

### 285 Summary of Australian statistics for iron ore and steel <sup>a</sup>

	Production				Exports			
	Iron ore		Pig iron kt	Crude steel kt	Iron ore consumption kt	Iron ore and pellets kt	Pig iron kt	Crude steel bs kt
	Pellets kt	Total kt						
1960	na	4 455	2 929	3 747	4 700	na	101	10
1961	0	5 463	3 211	3 844	5 700	0	301	88
1962	0	5 048	3 490	4 235	5 100	0	160	100
1963	0	5 689	3 683	4 652	5 600	0	135	32
1964	0	5 846	4 049	5 099	5 500	13	57	9
1965	0	6 805	4 252	5 464	6 500	152	46	10
1966	0	11 071	4 743	5 891	7 500	2 045	97	255
1967	0	17 314	5 058	6 268	7 900	9 164	152	344
1968	3 000	26 632	5 573	6 503	8 600	16 398	246	356
1969	5 871	38 576	6 107	7 016	9 300	26 858	375	545
1970	5 957	51 188	6 148	6 822	9 400	41 112	310	226
1971	6 800	62 063	6 128	6 737	9 600	52 796	519	122
1972	6 424	64 401	6 491	6 743	9 600	54 079	582	597
1973	10 153	84 828	7 658	7 682	11 300	74 181	853	771
1974	10 066	96 950	7 250	7 755	10 700	83 654	753	775
1975	9 469	97 651	7 475	7 843	11 000	80 363	520	1 636
1976	9 594	93 255	7 417	7 774	10 900	81 231	698	1 534
1977	10 226	95 932	6 753	7 313	9 900	78 908	647	1 280
1978	9 471	83 134	7 337	7 589	10 800	75 264	711	1 008
1979	9 303	91 717	7 811	8 125	11 500	78 447	643	611
1980	5 329	95 534	6 959	7 594	11 585	80 375	515	306
1981	3 887	84 661	6 830	7 635	11 810	71 729	158	378
1982	3 321	87 694	5 956	6 371	10 853	72 567	101	218
1983	3 043	71 040	5 045	5 657	8 923	74 088	469	384
1984	3 497	94 406	5 329	6 303	9 380	85 477	71	294
1985	3 725	92 900	5 607	6 578	8 673	84 746	26	583
1986	3 338	94 015	5 889	6 703	9 680	79 523	26	496
1987	3 309	101 748	5 569	6 125	9 319	77 829	165	523
1988	3 400	96 064	5 730	6 399	9 570	94 855	25	843
1989	3 600	105 810	6 094	6 735	8 836	101 681	24	948
1990	4 537	110 509	6 125	6 666	8 881	95 928	1	1 740
1991	3 475	117 673	5 647	6 017	8 188	111 557	0	1 934
1992	1 437	112 115	6 388	6 990	9 263	103 487	0	2 315
1993	1 512	120 534	7 284	7 837	10 926	111 527	0	2 621
1994	1 507	128 766	7 855	8 455	11 783	119 093	0	3 069
1995	1 596	142 964	7 861	8 431	11 791	130 369	0	2 950
1996	1 608	152 138	7 381	8 379	11 662	128 274	0	3 130
1997	168	156 286	7 884	8 837	12 131	146 757	0	3 188
1998	3 618	160 731	7 724	8 886	11 605	136 418	0	3 364
1999	1 932	151 558	7 147	8 162	10 782	139 278	3	3 000
2000	2 200	171 508	6 115	7 297	9 950	157 368	3	2 550
2001	2 100	181 435	5 972	7 076	10 572	156 718	0	1 998

<sup>a</sup> Iron ore figures expressed in dry weight. <sup>b</sup> Series up to and including 1987 do not include flat rolled products, bars and rods, and wire and steel sections. Subsequent series include all items in ABS, *Australian Harmonized Export Commodity Classification*, chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys. <sup>s</sup> ABARE estimate. <sup>na</sup> Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Quarterly Summary Statistics*, Canberra.

## Iron ore and steel

### 286 Australian exports of iron and steel, by destination <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000 <sup>b</sup>	2001 <sup>b</sup>
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	1	1	2	4	18	18	16	59
Americas								
North	530	310	636	456	1 123	986	544	88
Other	11	21	16	53	129	96	93	44
Total	541	330	652	509	1 252	1 082	637	132
Asia								
China	38	57	155	58	56	55	93	698
Chinese Taipei	711	624	576	445	287	230	183	78
Hong Kong, China	56	109	133	195	154	86	45	16
India	76	82	11	4	154	62	20	4
Indonesia	234	213	211	296	51	165	82	75
Japan	187	210	204	127	76	72	53	25
Korea, Rep. of	548	373	363	474	302	598	302	343
Malaysia	178	223	248	270	87	115	66	48
Philippines	107	149	84	232	88	56	11	19
Singapore	99	93	89	116	57	45	19	7
Thailand	88	188	152	181	154	194	124	29
Other	50	66	48	52	47	82	52	37
Total	2 371	2 386	2 274	2 451	1 512	1 760	1 049	1 379
Europe	3	24	50	59	464	230	212	73
New Zealand	108	95	103	111	90	138	92	91
Other	44	113	49	53	29	26	501	13
Total	3 069	2 950	3 130	3 188	3 364	3 253	2 507	1 747

<sup>a</sup> Includes all items in ABS, *Australian Harmonized Export Commodity Classification*, chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys. <sup>b</sup> Data for slab, hot rolled, cold rolled and coated steel products became confidential in 2000. Estimates or export volumes are included in 'other' category.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## Iron ore and steel

### 287 Australian supply and disposal of iron ore and steel

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>								
Iron ore and concentrate	kt	147 861	153 345	161 146	153 478	159 750	175 555	185 302
Pig iron	kt	7 554	7 545	7 928	7 453	6 489	6 096	6 062
Raw steel	kt	8 471	8 467	9 143	8 549	8 053	8 003	8 311
<b>Exports</b>								
Iron ore and pellets	kt	126 185	137 557	142 208	135 185	149 436	157 320	156 122
	\$m	2 865	3 155	3 791	3 844	3 779	4 903	5 160
Iron and steel s	kt	3 130	3 212	3 347	3 332	2 941	2 931	3 147
	\$m	1 510	1 385	1 608	1 316	1 268	1 543	1 381
Scrap	kt	605	668	647	697	754	1 063	934
	\$m	172	129	149	125	155	212	177
<b>Export unit value</b>								
Iron ore and pellets	\$/t	22.70	22.94	26.66	28.44	25.29	31.16	33.05

s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

### 288 Australian iron ore exports, by destination <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Asia</b>								
China	17 160	22 922	23 231	31 510	26 840	26 219	33 293	38 023
Chinese Taipei	5 237	4 906	5 418	7 788	7 306	8 017	9 089	9 904
Japan <sup>b</sup>	54 905	57 575	57 843	64 215	60 633	64 889	69 362	66 830
Korea, Rep. of	16 623	17 515	16 732	16 867	17 793	19 154	21 203	23 810
Other	1 442	1 088	1 193	1 137	725	830	828	922
United States	695	635	483	628	1 038	618	609	436
Western Europe	21 604	24 060	22 551	23 788	21 333	18 890	21 484	15 867
Other <sup>c</sup>	1 427	1 668	822	825	750	662	1 501	926
Total	119 093	130 369	128 274	146 757	136 418	139 278	157 368	156 718

<sup>a</sup> Dry weight. <sup>b</sup> Includes exports to the Philippines which were subsequently re-exported to Japan. <sup>c</sup> Includes data for which details of export destinations are not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

# 289 Summary of world statistics for iron ore and steel

	Production				
	Iron ore a		Iron b	Crude steel	Iron ore exports a
	Pellets Mt	Total Mt			
1960	16.1	522.0	241.5	347.1	151.9
1961	17.9	503.8	251.1	347.2	149.2
1962	22.0	523.4	257.2	353.6	157.9
1963	29.6	516.2	272.4	379.2	164.7
1964	40.5	568.9	307.9	429.9	198.7
1965	46.5	624.3	326.3	452.4	211.7
1966	58.0	625.9	335.8	471.3	214.9
1967	71.5	629.2	352.4	493.3	223.7
1968	94.5	687.7	378.4	523.9	256.7
1969	104.3	720.3	408.4	570.9	278.8
1970	117.9	773.9	426.5	595.3	323.1
1971	122.2	780.5	423.1	582.3	318.0
1972	127.5	781.7	447.1	630.2	311.4
1973	150.7	845.6	493.5	696.4	377.0
1974	153.6	896.3	503.4	703.5	411.8
1975	161.5	888.8	469.9	643.5	381.0
1976	174.5	922.9	489.4	675.1	379.8
1977	163.3	880.8	485.8	675.3	358.0
1978	182.6	891.3	506.7	716.5	350.6
1979	205.4	947.6	528.3	746.7	398.1
1980	186.3	917.9	508.1	716.3	384.6
1981	195.2	894.6	497.2	707.1	372.9
1982	155.1	818.2	452.6	644.9	329.3
1983	171.0	782.1	458.1	663.4	315.1
1984	192.8	882.2	490.7	710.3	372.4
1985	201.9	909.6	499.6	718.9	375.8
1986	196.5	920.7	496.3	714.0	370.0
1987	211.5	945.5	509.0	735.5	367.8
1988	230.2	964.4	538.4	780.1	400.9
1989	237.1	991.0	544.8	785.9	424.3
1990	225.3	980.6	531.6	770.1	397.1
1991	211.5	952.1	508.6	736.2	398.9
1992	205.9	907.8	476.4	719.6	365.9
1993	205.3	933.1	477.4	727.6	396.2
1994	218.7	965.5	482.6	725.1	421.5
1995	245.3	1 024.0	491.5	750.2	445.5
1996	238.9	1 019.3	486.6	749.6	432.5
1997	249.5	1 064.7	515.2	798.6	472.3
1998	242.6	1 036.1	502.6	777.4	457.8
1999	237.9	1 009.4	510.7	786.5	438.6
2000	262.3	1 080.1	543.8	844.6	489.0
2001	233.3	1 047.6	544.1	837.0	476.5

a Natural weight. b Total production of primary iron less total production of directly reduced iron.

Sources: Association of Iron Ore Exporting Countries, *Iron Ore Statistics*, Geneva; International Iron and Steel Institute, *Steel Statistical Yearbook*, Brussels; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics*, Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics*, *Iron Ore Statistics*, Geneva; United Nations Conference on Trade and Development, *Statistical Issues: Statistics on Iron Ore*, Geneva; United Nations Conference on Trade and Development, Trust Fund Project on Iron Ore Information, *The Iron Ore Market 1999-2000*, Geneva.

## Iron ore and steel

### 290 World iron ore production, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Australia	134.6	146.2	154.6	165.0	163.3	153.0	176.3	180.5
Brazil <sup>b</sup>	167.8	178.4	179.9	188.0	183.1	188.7	208.8	208.7
Canada	37.7	37.6	36.5	38.2	38.7	34.0	35.9	27.9
China <sup>c</sup>	239.0	250.4	250.5	267.0	246.9	237.2	224.0	217.0
CIS <sup>d</sup>	134.9	144.0	132.9	136.9	132.1	138.1	157.2	151.3
France	2.4	1.5	1.5	0.5	0.0	0.0	0.0	0.0
India	58.4	66.8	67.3	69.4	71.7	70.2	76.0	79.2
South Africa	30.5	32.0	30.8	33.2	33.0	29.5	33.7	34.8
Sweden	19.9	21.7	21.3	21.9	20.9	18.9	20.6	19.5
United States	58.4	62.5	62.1	63.0	62.9	57.8	63.1	45.8
Venezuela	16.1	19.0	18.7	18.7	17.2	17.0	17.4	19.0
Other	65.7	64.1	63.4	63.0	66.4	64.9	67.2	63.9
Total	965.5	1 024.0	1 019.3	1 064.7	1 036.1	1 009.4	1 080.1	1 047.6

<sup>a</sup> Natural weight. <sup>b</sup> Pellets not included. <sup>c</sup> Low Fe content. <sup>d</sup> Commonwealth of Independent States (CIS). Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics*, Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics*, Geneva.

### 291 World iron ore exports, by country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Australia	125.0	137.1	135.5	155.5	144.7	146.2	165.2	164.4
Brazil	125.0	131.4	129.7	140.4	143.2	140.2	160.1	155.7
Canada	30.0	28.7	27.9	32.3	30.6	26.9	26.5	22.0
Former Soviet Union <sup>b</sup>	28.4	30.0	28.3	30.4	28.0	22.3	27.4	25.3
India	30.6	32.3	31.7	32.9	32.8	31.0	32.9	37.3
Mauritania	10.3	11.5	11.2	11.7	11.4	11.0	11.1	10.1
South Africa	19.6	21.8	19.3	20.7	22.1	21.1	21.4	23.5
Sweden	15.4	17.1	16.1	18.3	16.0	13.9	16.0	13.7
Venezuela	10.7	10.6	9.6	9.3	8.6	6.6	6.9	6.9
Other	26.5	24.9	23.2	20.7	20.3	19.4	21.5	17.6
Total	421.5	445.5	432.5	472.3	457.8	438.6	489.0	476.5

<sup>a</sup> Natural weight. <sup>b</sup> Commonwealth of Independent States (CIS). Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore Information, *Iron Ore Market 1999-2000*, Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics*, Geneva.

## Iron ore and steel

### 292 World iron ore imports, by region and country <sup>a</sup>

	1993 Mt	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt
<b>Africa and Middle East</b>									
Qatar	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4
Saudi Arabia	2.5	2.7	2.7	3.2	2.7	3.3	3.5	4.5	3.9
Other	7.1	8.3	8.7	8.0	9.3	7.8	7.3	11.1	9.4
<b>Total</b>	<b>10.2</b>	<b>11.6</b>	<b>12.0</b>	<b>11.8</b>	<b>12.6</b>	<b>11.7</b>	<b>11.3</b>	<b>16.1</b>	<b>13.7</b>
<b>Americas</b>									
Argentina	3.1	3.8	4.4	4.9	5.3	5.4	4.5	5.4	4.5
Canada	5.4	5.3	6.0	6.9	7.1	7.2	7.3	6.5	5.9
Mexico	0.7	0.7	1.7	2.2	2.8	4.0	3.9	3.2	2.1
United States	14.1	17.5	17.5	18.4	18.6	16.9	14.3	15.7	10.7
Other	1.2	1.6	1.5	1.9	1.8	2.0	2.2	2.7	3.3
<b>Total</b>	<b>24.5</b>	<b>28.9</b>	<b>31.1</b>	<b>34.3</b>	<b>35.6</b>	<b>35.5</b>	<b>32.2</b>	<b>33.5</b>	<b>26.6</b>
<b>Asia and Oceania</b>									
China	33.0	37.3	41.2	43.9	55.1	51.8	55.3	70.0	92.3
Chinese Taipei	9.0	8.3	9.2	10.1	14.0	14.2	13.3	14.9	15.6
Indonesia	2.3	2.0	2.5	2.5	1.9	1.3	2.4	2.2	1.3
Japan	114.5	116.1	120.4	119.2	126.6	120.8	120.1	131.7	126.3
Korea, Rep. of	35.5	34.3	35.1	34.8	38.6	33.6	35.5	39.0	45.9
Malaysia	1.5	1.4	1.8	1.7	2.6	1.1	1.4	1.7	1.6
Pakistan	2.0	1.9	1.7	1.6	1.7	1.4	1.6	1.5	1.4
Other	0.7	1.2	1.7	1.8	1.6	1.4	1.7	1.8	1.4
<b>Total</b>	<b>198.5</b>	<b>202.5</b>	<b>213.6</b>	<b>215.6</b>	<b>242.1</b>	<b>225.6</b>	<b>231.3</b>	<b>262.8</b>	<b>285.8</b>
<b>Europe</b>									
Austria	3.6	3.9	4.3	4.5	5.1	5.2	4.4	5.4	5.3
Belgium-Luxembourg	15.5	17.4	15.8	13.0	11.2	13.5	12.1	11.6	9.8
Bulgaria	1.6	1.8	2.3	2.1	2.2	2.1	1.7	1.8	1.3
Finland	3.4	3.5	3.0	3.3	3.7	3.9	3.8	3.9	3.9
Former Czechoslovakia	12.8	11.6	14.0	12.3	11.9	11.4	9.7	11.7	10.7
Former Yugoslavia	0.0	0.0	0.0	1.0	1.1	0.3	1.3	0.9	0.2
France	16.6	20.1	20.2	18.4	20.2	19.8	20.2	19.7	16.7
Germany	36.3	43.7	44.1	39.8	46.4	46.8	39.2	47.6	40.1
Hungary	2.3	2.2	2.1	2.3	1.5	2.1	1.7	2.1	1.7
Italy	16.7	16.4	18.3	16.0	16.7	15.7	15.6	17.6	15.8
Netherlands	8.6	8.6	8.7	8.4	8.6	8.8	7.9	8.9	6.3
Norway	0.6	na	0.2	0.5	0.5	0.4	0.0	0.0	0.0
Poland	8.8	8.4	10.5	9.5	10.3	9.7	7.3	9.7	7.7
Portugal	0.6	0.6	0.7	0.6	0.6	0.6	0.5	0.6	0.7
Romania	3.6	5.5	6.3	5.8	6.6	6.6	4.2	4.5	3.9
Spain	6.7	7.6	7.3	6.1	5.9	6.6	6.3	6.3	6.6
Turkey	2.0	2.0	3.2	3.0	3.0	3.9	3.0	4.1	4.7
United Kingdom	15.9	19.5	20.8	20.4	21.0	20.8	17.0	16.7	15.4
Other	0.6	0.4	10.0	10.0	10.0	10.0	0.1	0.1	0.0
<b>Total</b>	<b>156.2</b>	<b>173.2</b>	<b>181.9</b>	<b>167.1</b>	<b>176.6</b>	<b>178.3</b>	<b>156.0</b>	<b>173.3</b>	<b>150.8</b>
<b>Total</b>	<b>390.1</b>	<b>417.2</b>	<b>439.5</b>	<b>429.8</b>	<b>469.1</b>	<b>452.5</b>	<b>432.1</b>	<b>486.7</b>	<b>479.1</b>

<sup>a</sup> Natural weight.

Sources: United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics*, Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics*, Geneva.

## Iron ore and steel

### 293 Iron ore prices <sup>a</sup>

	Australian export unit value <sup>b</sup>		Spot <sup>c</sup>		Negotiated <sup>e</sup>	
	A\$/t	US\$/t	Nominal	Real <sup>d</sup>	Fines	Lump
			US\$/t	US\$/t	USc/dltu	USc/dltu
1960	na	na	17.08	81.00	na	na
1961	na	na	17.79	83.44	na	na
1962	na	na	16.75	77.71	na	na
1963	na	na	15.69	71.79	na	na
1964	6.09	6.82	15.69	71.01	na	na
1965	8.26	9.25	15.69	69.82	na	na
1966	8.38	9.39	15.25	65.82	12.00	15.50
1967	8.36	9.36	13.50	56.79	12.00	15.50
1968	8.67	9.71	12.62	50.95	12.00	15.50
1969	8.69	9.73	11.68	44.65	12.00	15.10
1970	8.04	9.00	15.22	54.95	11.90	15.00
1971	7.69	8.69	13.40	46.43	11.80	14.90
1972	7.29	8.68	12.79	42.81	11.70	14.80
1973	6.19	8.79	17.13	53.99	13.30	17.30
1974	7.04	10.14	19.00	54.00	15.40	19.30
1975	9.32	12.21	22.81	59.37	17.40	21.20
1976	10.23	12.58	22.72	55.89	17.70	21.70
1977	12.06	13.39	21.59	49.92	20.20	24.70
1978	12.06	13.75	19.39	41.67	21.20	24.30
1979	12.87	14.41	23.44	45.21	23.10	26.10
1980	14.59	16.63	28.09	47.83	27.60	31.20
1981	15.79	18.16	28.09	43.36	29.70	34.20
1982	19.88	20.28	32.50	47.26	34.80	40.00
1983	21.23	19.11	29.00	40.85	30.45	34.85
1984	18.87	16.61	26.15	35.32	26.67	30.87
1985	22.98	16.09	26.56	34.65	27.05	31.55
1986	24.33	16.30	26.26	33.62	25.97	30.29
1987	21.54	15.08	24.50	30.25	24.67	28.78
1988	18.68	14.57	23.50	27.88	23.68	28.78
1989	20.53	16.22	26.50	29.99	26.76	33.76
1990	23.55	18.37	30.80	33.08	31.03	39.15
1991	25.92	20.22	33.25	34.26	33.49	41.48
1992	27.18	20.12	31.60	31.60	31.85	38.84
1993	25.93	17.63	28.11	27.30	28.35	35.34
1994	21.75	15.88	25.47	24.11	25.66	33.26
1995	22.49	16.65	27.00	24.86	27.15	35.89
1996	22.68	17.69	28.60	25.59	28.78	37.68
1997	24.29	17.97	28.71	25.09	29.10	37.68
1998	29.23	18.41	29.69	25.55	29.92	38.79
1999	25.63	16.53	26.96	22.70	26.63	34.83
2000	28.14	16.38	27.67	22.54	27.79	36.84
2001	33.38	17.30	28.92	22.92	28.98	38.03

<sup>a</sup> Nominal values, except where indicated. <sup>b</sup> Australia commenced commercial exports of iron ore in 1964. <sup>c</sup> Before 1965, Liberia Nimba, 27 per cent fines, cif North Sea ports; after 1965, Brazilian Itabira standard sinterfeed, 61.5 per cent iron, cif German ports. <sup>d</sup> In 1992 dollar terms. <sup>e</sup> Negotiated Japanese fiscal year hematite ores, fob. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; International Monetary Fund, *International Financial Statistics*, Washington DC; TEX Report Co. Ltd, *Iron Ore Manual*, Tokyo.



# 294 Summary of Australian statistics for lead

	Production			Consumption	Exports d		Price e
	Mine a kt	Bullion b kt	Refined c kt		Volume kt	Value \$m	
1960	313	54	190	54	253	41	196.8
1961	274	49	162	52	282	41	195.5
1962	376	74	190	50	388	50	161.6
1963	416	82	225	64	380	53	166.5
1964	381	80	203	63	350	73	235.5
1965	368	68	193	64	340	86	276.6
1966	371	75	193	65	354	79	248.8
1967	382	103	191	66	335	80	217.5
1968	389	118	175	66	334	87	218.6
1969	453	156	186	71	342	97	259.2
1970	457	171	180	62	401	123	282.1
1971	404	162	163	63	338	87	239.1
1972	396	139	180	63	320	87	241.3
1973	403	150	190	74	329	107	275.2
1974	375	144	193	72	315	155	389.4
1975	408	152	158	72	298	126	324.2
1976	397	161	182	75	359	157	358.6
1977	432	156	182	77	339	226	531.8
1978	400	152	204	74	369	236	563.2
1979	422	169	215	72	351	437	1 031.2
1980	398	160	200	79	344	570	843.3
1981	388	163	208	66	329	315	662.5
1982	455	182	219	56	397	334	622.4
1983	481	183	196	56	409	383	592.2
1984	441	179	199	59	427	358	515.3
1985	498	183	200	59	430	358	568.1
1986	445	188	156	60	412	361	604.5
1987	489	197	202	62	388	512	867.6
1988	462	191	193	60	420	490	885.7
1989	495	183	212	61	338	382	892.8
1990	565	195	212	58	398	464	1 123.6
1991	579	182	220	56	425	331	801.6
1992	580	231	232	59	542	460	813.6
1993	510	221	221	67	496	334	670.7
1994	505	197	212	78	465	368	810.8
1995	455	164	215	77	479	429	912.6
1996	527	191	204	67	488	489	1 074.7
1997	526	179	203	63	517	431	919.2
1998	618	164	173	55	578	544	914.3
1999	677	162	239	56	696	571	860.2
2000	699	139	223	55	656	576	854.9
2001	759	195	237	55	717	709	1 017.8

a Total metallic content of minerals produced. b Metal content. c Primary lead production (excludes scrap). d Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal; the value of lead contained in other mine and smelter products (for example, in zinc concentrates) is included in the value of the metal in which it is exported. e BHAS, 99.97–99.99 per cent, fob/for Port Pirie.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## Lead

### 295 Australian supply and disposal of lead

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>									
Mine <b>a</b>	kt	463	506	516	571	663	648	724	744
Bullion <b>b</b>	kt	177	181	191	171	157	165	153	201
Refined									
Primary	kt	205	224	202	185	199	233	215	275
Secondary	kt	24	26	25	26	30	33	33	34
<b>Exports</b>									
Ores and concentrates	kt	168	139	178	253	397	436	433	380
	\$m	57.8	50.3	54.3	140.2	213.0	264.1	318.2	323.3
Bullion	kt	168	169	164	167	140	135	119	153
	\$m	187.8	168.7	214.5	179.1	143.9	155.1	151.5	194.8
Refined metal	kt	188	193	177	177	201	258	199	236
	\$m	181.0	209.1	200.7	172.9	180.0	187.5	167.2	210.6
<b>Consumption c</b>	kt	66	75	70	64	60	55	55	60
<b>Export unit value</b>									
Ores and concentrates	A\$/t	343.3	362.4	305.3	554.8	536.2	605.3	735.1	850.2
Bullion	A\$/t	1 116.2	1 000.8	1 311.6	1 075.5	1 026.6	1 150.9	1 276.4	1 276.7
Refined	A\$/t	964.5	1 083.5	1 136.4	978.9	894.2	727.4	841.2	891.2

**a** Total metallic content of minerals produced. **b** Metal content. **c** Refined metal only.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 296 Australian exports of lead, by destination <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Ores and concentrates <sup>b</sup></b>								
Belgium	2	2	4	0	52	58	73	64
China	0	2	19	29	26	35	70	74
Germany	4	2	3	3	8	4	0	2
Italy	5	2	0	3	11	12	4	0
Japan	47	38	34	40	46	36	39	48
Korea, Rep. of	26	30	10	10	64	72	81	100
United States	0	3	0	6	14	15	9	6
Other	4	3	14	12	10	25	9	10
Total	88	82	84	103	231	257	285	304
<b>Bullion</b>								
Japan	0	0	0	0	0	0	0	0
Korea, Rep. of	16	24	17	15	0	0	0	0
United Kingdom	162	137	151	156	134	138	109	148
Other	0	6	0	0	0	0	0	0
Total <sup>c</sup>	178	167	168	171	134	138	109	148
<b>Refined metal</b>								
Chinese Taipei	29	36	25	32	25	34	44	30
India	20	15	14	17	14	13	24	21
Indonesia	18	28	28	23	16	19	21	16
Japan	12	12	7	3	3	2	2	1
Korea, Rep. of	35	36	37	32	23	28	26	28
Malaysia	8	14	9	14	12	43	16	13
South Africa	6	10	7	13	12	11	9	11
Thailand	14	13	22	8	5	7	10	16
United Kingdom	3	0	0	0	0	11	0	0
United States	3	0	0	0	0	41	31	37
Other	29	25	20	27	25	46	36	34
Total	177	189	169	169	135	255	219	207

<sup>a</sup> Excludes slags and residues and scrap. <sup>b</sup> Lead content of lead ores and concentrates only. <sup>c</sup> Includes a substantial amount of contained silver, for which separate details are not available.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

## Lead

### 297 World production, consumption, stocks and prices of lead

	Production				Consumption kt	Stocks <sup>b</sup> kt	Price <sup>c</sup> US\$/t
	Mine <sup>a</sup> kt	Refined metal		Total kt			
		Primary kt	Secondary <sup>b</sup> kt				
1960	2 372	2 479	748	3 227	3 080	457	195.7
1961	2 392	2 573	726	3 299	3 153	551	174.4
1962	2 531	2 568	728	3 296	3 275	478	153.0
1963	2 543	2 664	796	3 460	3 429	411	172.2
1964	2 604	2 695	910	3 605	3 633	370	275.0
1965	2 784	2 756	958	3 714	3 670	365	312.5
1966	2 937	2 885	940	3 825	3 847	368	258.5
1967	2 961	2 925	959	3 884	3 861	459	224.7
1968	3 034	3 094	1 044	4 138	4 200	338	236.9
1969	3 295	3 894	1 148	4 542	4 431	414	285.6
1970	3 443	3 616	1 287	4 688	4 502	500	303.8
1971	3 476	3 388	1 261	4 614	4 671	479	252.9
1972	3 585	3 491	1 324	4 803	4 863	470	303.8
1973	3 673	3 580	1 426	4 991	5 218	375	428.2
1974	3 642	3 593	1 462	5 042	5 173	523	591.5
1975	3 570	3 442	1 410	4 828	4 742	576	412.4
1976	3 464	3 539	1 487	5 049	5 146	482	452.8
1977	3 646	3 662	1 707	5 372	5 449	466	618.1
1978	3 622	3 697	1 738	5 459	5 546	396	658.0
1979	3 589	3 716	1 903	5 622	5 609	458	1 204.4
1980	3 495	3 600	1 815	5 417	5 392	525	910.3
1981	3 342	3 560	1 798	5 309	5 308	518	736.9
1982	3 366	3 641	1 649	5 210	5 142	560	543.9
1983	3 265	3 637	1 561	5 198	5 152	560	425.1
1984	3 126	3 470	1 829	5 299	5 275	535	444.3
1985	3 248	3 539	1 835	5 374	5 278	427	394.2
1986	3 082	3 345	1 891	5 236	5 343	480	406.9
1987	3 152	3 386	2 047	5 433	5 427	400	596.1
1988	3 151	3 475	2 102	5 577	5 482	443	656.3
1989	3 110	3 362	2 348	5 710	5 599	356	677.4
1990	3 110	3 087	2 369	5 456	5 432	402	820.0
1991	3 134	3 071	2 262	5 333	5 226	442	559.0
1992	3 037	3 238	2 268	5 506	5 194	592	541.0
1993	2 700	3 176	2 303	5 479	5 225	659	406.0
1994	2 707	2 968	2 483	5 451	5 488	626	549.0
1995	2 750	3 091	2 649	5 740	5 849	455	631.0
1996	3 006	3 069	2 789	5 858	6 004	438	774.0
1997	3 030	3 127	2 905	6 032	6 041	440	624.0
1998	2 990	3 100	2 910	6 010	6 049	420	528.6
1999	2 972	3 308	2 963	6 271	6 234	472	502.6
2000	3 057	3 577	3 073	6 650	6 494	444	453.9
2001	2 984	3 488	3 007	6 495	6 411	437	475.9

<sup>a</sup> Metal content. <sup>b</sup> Western world refined metal. <sup>c</sup> Average London Metal Exchange cash price, midday, standard grade, minimum 99.97 per cent.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

# 298 World lead production, by region and country <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Mine</b>								
Africa	192	185	189	180	182	179	178	150
Morocco	70	68	74	77	80	80	82	78
South Africa	96	88	89	83	84	80	75	51
Americas	979	1 047	1 157	1 129	1 146	1 111	1 061	1 070
Canada	171	210	257	186	190	162	149	154
Mexico	170	164	174	174	166	126	138	130
Peru	233	238	249	262	258	271	271	289
United States	370	394	436	459	491	513	466	459
Asia	654	714	819	858	721	688	806	724
China	462	520	643	712	581	549	660	599
India	30	34	35	33	38	38	36	32
Kazakhstan	38	40	28	29	26	31	39	43
Korea, Dem. Rep. of	55	50	40	35	25	16	12	9
Other	69	70	73	49	51	54	59	41
Australia	486	424	475	486	584	633	650	714
Europe	394	380	366	377	357	361	362	325
Bulgaria	32	33	28	32	22	14	14	16
Ireland	54	46	45	45	36	39	57	45
Poland	53	55	59	55	60	68	53	48
Sweden	113	100	99	109	112	118	107	88
Other	142	146	135	136	127	122	131	128
<b>Total</b>	<b>2 707</b>	<b>2 750</b>	<b>3 006</b>	<b>3 030</b>	<b>2 990</b>	<b>2 972</b>	<b>3 057</b>	<b>2 984</b>
<b>Refined <sup>b</sup></b>								
Africa	135	141	131	124	127	131	125	125
Americas	1 917	2 082	2 122	2 182	2 182	2 135	2 230	2 056
Canada	252	281	311	271	266	266	284	231
Mexico	220	238	232	259	259	199	241	222
United States	1 249	1 358	1 372	1 431	1 436	1 447	1 471	1 375
Other	196	205	207	221	221	223	234	228
Asia	1 331	1 476	1 539	1 602	1 643	1 874	2 150	2 163
China	468	608	706	708	757	918	1 100	1 172
India	60	62	67	60	66	64	67	63
Japan	292	288	287	297	302	293	312	302
Kazakhstan	145	93	69	82	92	159	208	159
Korea, Rep. of	130	181	141	182	180	190	220	211
Other	236	244	269	243	246	250	243	256
Australia	236	237	228	229	200	271	259	271
Europe	1 837	1 796	1 796	1 890	1 852	1 855	1 882	1 875
France	260	297	301	283	289	273	262	230
Germany	332	314	238	329	353	353	387	375
Italy	223	189	210	212	199	215	231	222
United Kingdom	416	366	381	399	370	372	338	382
Other	606	630	666	667	641	642	664	666
Other countries	6	6	6	6	6	6	5	5
<b>Total</b>	<b>5 451</b>	<b>5 740</b>	<b>5 858</b>	<b>6 032</b>	<b>6 010</b>	<b>6 271</b>	<b>6 650</b>	<b>6 495</b>

<sup>a</sup> Lead content by analysis of lead ores and concentrates plus the lead content of other ores and concentrates known to be intended for lead recovery. <sup>b</sup> Includes primary and secondary lead.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

## Lead

### 299 World lead trade, by major countries

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports</b>								
<b>Ores and concentrates a</b>								
Australia	88	82	84	103	231	257	285	304
Canada	35	71	114	74	37	49	60	58
Ireland	53	46	48	43	35	40	57	49
Morocco	20	na	28	24	29	29	24	na
Peru	129	137	138	142	142	148	145	151
South Africa	92	86	90	86	21	66	77	38
Sweden	62	43	45	51	79	71	73	68
United States	38	65	60	42	72	93	117	185
<b>Refined lead</b>								
Australia	177	189	169	169	135	255	219	207
Belgium	87	76	91	98	87	69	104	81
Bulgaria	48	57	59	65	na	na	na	na
Canada	142	151	167	159	157	166	166	144
China	174	163	246	186	236	450	443	448
France	78	84	92	74	86	76	74	61
Germany	80	59	51	74	93	80	114	145
Mexico	55	95	78	102	72	28	20	13
Morocco	58	53	54	52	59	54	56	na
Peru	75	81	na	na	100	101	111	115
Sweden	54	48	51	56	57	57	65	52
United Kingdom	86	79	67	79	100	81	84	89
United States	48	46	44	37	24	23	21	17
<b>Imports</b>								
<b>Ores and concentrates a</b>								
Belgium	52	52	60	37	58	58	71	63
Canada	21	43	69	35	23	56	47	53
China	5	19	42	71	127	93	158	255
France	89	118	123	123	120	115	148	109
Germany	57	62	50	37	85	111	115	146
Italy	39	40	63	55	59	110	95	69
Japan	166	119	113	116	118	122	128	117
Korea, Rep. of	73	84	75	52	99	90	126	145
United Kingdom	32	47	47	39	33	25	14	8
<b>Refined lead</b>								
Austria	42	46	37	44	50	36	40	39
Belgium	16	25	16	45	53	13	17	24
Chinese Taipei	88	104	98	114	101	121	126	121
France	52	47	51	50	47	67	70	74
Germany	88	123	107	87	95	87	112	157
Japan	52	75	30	28	22	11	21	30
Korea, Rep. of	116	119	159	140	90	117	113	131
Netherlands	39	48	39	46	34	15	11	14
Spain	38	54	63	81	95	100	104	114
Thailand	43	45	62	35	21	161	51	48
United Kingdom	23	47	33	17	29	38	105	31
United States	230	262	268	265	267	311	357	270

a Metal content. na Not available.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

# 300 Summary of Australian statistics for limestone

	Production	Exports		Imports	
	kt	Volume t	Value \$'000	Volume kt	Value \$'000
1970	9 996	na	na	511	708
1971	10 335	na	na	713	1 018
1972	10 494	na	na	605	1 001
1973	11 224	na	na	1 130	1 890
1974	11 046	na	na	1 432	2 572
1975	10 854	na	na	1 490	3 775
1976	10 583	na	na	1 527	4 475
1977	10 552	na	na	1 100	4 433
1978	10 924	na	na	1 380	7 085
1979	11 450	na	na	1 317	6 522
1980	11 730	na	na	1 077	4 928
1981	11 983	na	na	1 323	6 345
1982	12 698	15	1	977	4 344
1983	10 131	80	6	833	4 393
1984	9 608 a	35	8	940	5 381
1985	8 570 b	76	8	1 022	7 292
1986	10 747 a	21	10	996	10 794
1987	10 803 a	63	7	859	10 065
1988	10 614 a	30	6	1 004	11 480
1988-89	12 915	24	8	1 038	10 656
1989-90	13 283	15	17	na	9 382
1990-91	12 566	65	16	971	10 194
1991-92	na	258	49	1 161	12 412
1992-93	15 895	1 729	165	819	11 859
1993-94	na	18 893	1 145	1 011	17 156
1994-95	na	463	206	1 038	14 618
1995-96	na	133 080	1 889	991	14 777
1996-97	na	178 758	2 241	1 027	12 712
1997-98	na	130 256	1 559	636	8 182
1998-99	na	170 795	2 500	1 066	15 881
1999-00	15 853	229 934	4 515	705	10 540
2000-01	na	213 469	4 101	665	10 835
2001-02	na	241 526	4 683	595	9 995

a Excludes Western Australia. b Excludes Queensland and Western Australia. na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.

## Limestone

### 301 Australian production of limestone, by state

	New South Wales kt	Victoria kt	Queensland kt	Western Australia kt	South Australia kt	Tasmania kt	Australia kt
1960	2 439	1 176	531	315	1 081	218	5 760
1961	2 617	1 263	645	390	1 123	206	6 245
1962	2 471	1 233	706	361	1 422	324	6 518
1963	2 565	1 248	711	356	1 599	351	6 829
1964	2 743	1 415	803	462	1 567	358	7 348
1965	2 850	1 483	818	555	1 587	343	7 637
1966	2 738	1 831	886	571	1 478	350	7 854
1967	2 749	2 024	1 038	710	1 617	351	8 489
1968	2 729	1 849	1 198	745	1 583	504	8 608
1969	2 955	2 058	1 240	996	1 801	559	9 608
1970	3 155	2 022	1 242	1 201	1 853	523	9 996
1971	3 224	2 200	1 470	1 175	1 782	486	10 335
1972	3 403	2 127	1 590	1 301	1 484	581	10 494
1973	3 656	2 248	1 740	1 227	1 719	634	11 224
1974	3 779	2 192	1 758	1 157	1 562	599	11 046
1975	3 295	2 255	1 872	1 378	1 508	545	10 854
1976	3 096	2 068	1 959	1 104	1 720	635	10 583
1977	2 787	2 105	1 952	1 221	1 827	659	10 552
1978	2 903	2 245	1 802	1 365	1 890	718	10 924
1979	3 315	1 653	2 224	1 369	2 136	754	11 450
1980	3 496	2 211	1 951	1 232	1 120	720	11 730
1981	3 620	2 249	1 842	1 382	2 119	771	11 983
1982	3 417	2 303	2 235	1 762	2 061	910	12 698 a
1983	2 881	2 143	1 478	1 203	1 826	581	10 131 b
1984	3 234	2 507	1 634	na	1 469	763	9 608 c
1985	3 222	2 749	na	na	1 798	800	8 570 d
1986	3 420	2 776	1 687	na	2 012	852	10 747 c
1987	3 429	2 463	2 160	na	1 942	809	10 803 c
1988	3 411	2 580	1 880	na	1 918	826	10 614 c
1988-89	3 667	2 684	1 987	1 739	1 918	920	12 915
1989-90	3 972	2 639	2 121	1 699	1 889	963	13 283
1990-91	3 318	2 346	2 309	1 738	1 903	951	12 566
1991-92	3 410	na	2 369	2 054	2 014	na	na
1992-93	3 529	4 566	2 432	2 104	2 429	835	15 895
1993-94	na	na	2 485	2 147	2 666	na	na
1994-95	na	na	2 596	2 195	2 456	na	na
1995-96	3 746	na	na	2 612	1 729	na	na
1996-97	3 953	na	2 127	2 353	2 760	na	na
1997-98	3 887	na	1 994	2 280	2 476	na	na
1998-99	4 194	na	2 407	3 046	2 272	na	na
1999-00	4 164	2 127	2 552	3 008	2 580	1 843	15 853
2000-01	4 031	2 552	na	3 808	2 399	1 894	na

a Includes 10 000 tonnes for the Northern Territory. b Includes 18 000 tonnes for the Northern Territory. c Excludes Western Australia. d Excludes Queensland and Western Australia. na Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; state mines departments and their equivalents; ABARE.



# 302 Australian imports of limestone and lime

	Limestone				Lime	
	Japan kt	Other kt	Total		Volume t	Value \$'000
			Volume kt	Value \$'000		
1970	511	0	511	708	na	na
1971	713	0	713	1 018	na	na
1972	605	0	605	1 001	na	na
1973	1 130	0	1 130	1 890	na	na
1974	1 432	0	1 432	2 572	na	na
1975	1 449	41	1 490	3 775	na	na
1976	1 526	0	1 527	4 475	na	na
1977	1 099	0	1 100	4 433	na	na
1978	1 332	48	1 380	7 085	na	na
1979	1 269	48	1 317	6 522	na	na
1980	978	99	1 077	4 928	na	na
1981	1 275	48	1 323	6 345	3 445	355
1982	946	31	977	4 344	8 158	1 050
1983	833	0	833	4 393	1 999	273
1984	940	0	940	5 381	28 026	2 145
1985	1 022	0	1 022	7 292	16 927	1 556
1986	996	0	996	10 794	230	103
1987	859	0	859	10 065	511	322
1988	1 004	0	1 004	11 480	470	211
1988-89	1 038	0	1 038	10 656	467	275
1989-90	na	na	na	9 382	478	372
1990-91	969	3	971	10 194	189	105
1991-92	1 120	41	1 161	12 412	369	114
1992-93	777	42	819	11 859	449	182
1993-94	948	63	1 011	17 156	334	125
1994-95	916	122	1 038	14 618	1 659	374
1995-96	986	5	991	14 777	342	103
1996-97	1 010	17	1 027	12 712	3 444	431
1997-98	580	57	636	8 182	135	32
1998-99	943	123	1 066	15 881	426	102
1999-00	680	25	705	10 540	289	74
2000-01	615	50	665	10 835	2 786	397
2001-02	553	42	595	9 995	2 848	435

na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

# 303 Summary of Australian statistics for manganese

	Mine production (ore) kt	Exports		Prices <sup>a</sup> US\$/t
		Ore kt	Ferromanganese <sup>b</sup> kt	
1960	62	46	0	28.00
1961	89	53	0	26.00
1962	73	64	0	31.00
1963	37	17	0	29.00
1964	62	54	0	24.00
1965	102	67	0	23.00
1966	318	144	0	23.00
1967	558	320	0	22.00
1968	744	565	0	19.00
1969	903	664	0	18.12
1970	751	631	0	18.85
1971	1 051	794	0	17.82
1972	1 165	na	0	25.00
1973	1 522	1 513	na	30.20
1974	1 522	1 203	1	39.00
1975	1 555	1 132	na	58.00
1976	2 154	1 711	1	64.00
1977	1 389	811	13	65.00
1978	1 257	936	19	59.00
1979	1 724	1 157	32	57.00
1980	2 020	1 328	23	65.00
1981	1 449	900	16	67.00
1982	1 127	906	17	63.00
1983	1 370	1 004	29	54.00
1984	1 849	1 460	19	56.00
1985	2 003	1 403	20	57.00
1986	1 649	1 145	44	55.00
1987	1 854	1 306	47	50.00
1988	1 986	1 553	41	68.64
1989	2 119	1 620	27	108.00
1990	1 950	1 600	43	160.80
1991	1 390	1 075	20	160.80
1992	1 239	902	46	141.60
1993	1 887	1 720	59	108.00
1994	1 985	1 590	76	99.96
1995	2 177	1 630	73	97.92
1996	2 109	1 740	59	105.12
1997	2 136	1 541	41	99.86
1998	1 501	1 067	57	97.92
1999	1 900	1 213	na	91.20
2000	1 613	1 411	na	97.44
2001	2 084	1 555	na	101.28

<sup>a</sup> Before 1970, average unit export value in A\$/t; subsequently, high grade ore (48 per cent Mn) to Japan in US\$/t for Japanese fiscal year commencing 1 April. <sup>b</sup> Data became confidential in 1999. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## 304 Australian supply and disposal of manganese

		1994	1995	1996	1997	1998	1999	2000	2001
<b>Production</b>									
Manganese ore	kt	1 985	2 177	2 109	2 136	1 501	1 900	1 613	2 084
<b>Exports</b>									
Manganese ore s	kt	1 590	1 630	1 740	1 541	1 067	1 213	1 411	1 555
Ferromanganese b	kt	76	73	59	41	57	na	na	na
	\$m	38	38	31	18	37	na	na	na
<b>Imports</b>									
Ferromanganese	kt	10.5	10.6	14.8	7.8	11.7	6.1	4.7	5.8
	\$m	10.6	10.1	16.4	7.8	12.2	6.2	4.7	6.3
Ferrosilicon and silicomanganese	kt	34.7	37.9	50.3	36.1	34.2	33.1	29.1	28.1
	\$m	29.0	35.0	36.8	40.1	37.4	32.5	30.8	33.2
<b>Prices</b>									
Japanese negotiated a	US\$/t	99.96	97.92	105.12	99.86	97.92	91.20	97.44	101.28

a High grade ore (48 per cent Mn) to Japan for Japanese fiscal year commencing 1 April. b Data became confidential in 1999. s ABARE estimate. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## 305 World production of manganese ore, by country

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Australia	1 985	2 177	2 109	2 136	1 501	1 900	1 613	2 084
Brazil	2 321	2 398	2 400	2 400	1 940	1 656	2 192	2 200
China	5 800	8 000	7 700	6 000	5 300	5 300	5 300	5 300
Gabon	1 435	1 930	2 092	1 904	2 092	1 908	1 743	1 791
Georgia	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200
Ghana	238	187	266	332	384	612	895	813
India	1 661	1 797	1 782	1 751	1 583	1 490	1 604	1 483
Kazakhstan	500	492	473	426	634	944	1 202	1 150
Mexico	91	141	173	193	203	169	156	99
South Africa	2 851	3 225	3 264	3 112	3 051	3 050	3 635	3 271
Ukraine	4 500	4 500	3 000	3 000	2 200	1 985	2 741	2 781
Others	320	385	334	336	334	322	315	304
Total	22 902	26 432	24 794	22 790	20 421	20 535	22 597	22 476

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics Yearbook*, London.

## Nickel

# 306 Summary of Australian statistics for nickel

	Production a							
	Smelter and refinery b				Exports f s kt	Exports s \$m	Imports \$m	Price g A\$/t
	Mine kt	Intermediate products c kt	Refined nickel class 2 d kt	Refined nickel class 1 e kt				
1967	2.6	0.0	0.0	0.0	na	na	10.8	1 728.6
1968	4.6	0.0	0.0	0.0	na	na	9.9	1 852.7
1969	11.2	0.0	0.0	0.0	na	na	9.8	2 109.8
1970	29.8	0.0	0.0	9.0	na	na	23.3	2 541.1
1971	35.5	0.0	0.0	15.0	na	na	11.9	2 594.7
1972	35.5	0.0	0.0	16.5	na	na	8.3	2 588.2
1973	40.1	5.8	0.0	19.8	na	na	13.3	2 375.4
1974	45.9	14.6	0.0	20.5	na	96.0	12.8	2 656.2
1975	75.8	32.2	10.3	22.6	na	172.6	12.1	3 488.5
1976	82.5	32.0	18.0	21.8	na	260.9	18.5	4 043.1
1977	85.9	33.2	17.4	16.7	na	252.5	21.0	4 687.4
1978	82.4	32.7	18.7	18.6	na	222.1	25.1	4 043.0
1979	69.7	38.7	17.4	21.9	na	327.2	21.6	5 344.6
1980	74.3	32.5	17.9	17.4	na	427.0	30.4	5 728.3
1981	74.3	32.9	19.3	23.2	na	388.1	21.4	5 194.1
1982	87.6	49.4	20.6	25.3	na	393.7	19.7	4 753.4
1983	76.6	49.8	12.3	29.5	na	321.6	7.2	5 213.3
1984	76.9	51.1	13.1	25.6	na	386.0	15.2	5 410.8
1985	85.8	51.6	17.9	23.0	na	498.6	17.5	7 014.6
1986	76.7	49.1	20.4	21.6	na	440.3	22.3	5 795.5
1987	74.6	47.8	19.9	24.6	na	390.0	24.1	6 958.9
1988	58.0	40.0	21.1	20.3	62.1	633.5	7.4	18 194.6
1989	63.1	41.6	21.9	18.3	65.0	851.7	20.2	16 879.4
1990	67.8	49.2	22.3	25.2	73.7	666.5	30.2	11 403.8
1991	67.6	54.8	24.9	27.8	82.7	682.5	37.6	10 459.3
1992	57.9	47.8	25.9	29.5	75.4	768.7	48.5	9 465.2
1993	65.4	43.9	26.0	35.4	95.3	574.3	49.4	7 849.3
1994	75.9	68.4	23.0	43.5	111.4	765.0	57.3	8 687.8
1995	102.7	75.9	18.6	58.3	122.9	1 188.6	71.8	11 120.0
1996	113.0	76.8	12.6	61.4	132.0	1 081.0	70.0	9 623.0
1997	123.4	85.8	14.8	58.9	144.4	1 094.4	66.0	9 360.0
1998	143.9	100.1	15.3	64.3	171.6	985.7	66.0	7 350.7
1999	119.6	79.7	10.2	73.4	149.9	1 117.9	60.4	9 253.6
2000	166.5	100.9	12.8	99.4	188.4	2 227.2	80.8	5 034.7
2001	205.4	96.7	7.9	120.2	188.0	1 835.3	88.1	3 079.7

<sup>a</sup> Total metallic content of minerals produced. <sup>b</sup> Includes imported ores for processing at the Yabulu refinery in Queensland. <sup>c</sup> Includes matte and speiss for further refining. <sup>d</sup> Product with a nickel content of less than 99 per cent. Includes ferronickel, oxides and oxide sinter. Excludes nickel-cobalt sulphides. <sup>e</sup> Products with a nickel content of 99 per cent or more. <sup>f</sup> Total metallic content. <sup>g</sup> London Metal Exchange average cash settlement price for refined nickel, melting grade, in Australian dollar equivalent. <sup>s</sup> ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, AGPS, Canberra; International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London.

# 307 World production, consumption and prices of nickel

	Production		Stocks <sup>a</sup> kt	Consumption <sup>s</sup> kt	Price <sup>b</sup> US\$/t
	Mine <sup>s</sup> kt	Smelter/refinery <sup>s</sup> kt			
1960	361	345	na	321	1 631.0
1961	404	384	na	357	1 711.0
1962	398	395	na	358	1 761.0
1963	393	374	na	384	1 742.0
1964	422	411	na	441	1 742.0
1965	462	440	na	473	1 735.0
1966	443	429	na	512	1 739.0
1967	508	493	na	524	1 936.0
1968	580	524	na	537	2 075.0
1969	547	517	na	549	2 363.0
1970	702	645	na	625	2 846.0
1971	718	655	na	577	2 932.0
1972	662	624	na	618	3 080.0
1973	719	703	na	696	3 373.0
1974	792	765	na	751	3 825.0
1975	794	741	171	622	4 570.0
1976	814	790	179	713	4 973.0
1977	830	767	247	689	5 203.0
1978	684	651	149	750	4 609.0
1979	721	720	87	798	5 986.0
1980	786	788	204	756	6 530.3
1981	765	762	218	710	5 973.3
1982	687	695	202	702	4 848.5
1983	718	745	183	753	4 692.0
1984	815	822	126	840	4 761.5
1985	879	850	131	824	4 910.3
1986	844	829	126	828	3 883.0
1987	889	875	92	875	4 871.3
1988	928	917	85	895	14 191.8
1989	970	935	97	901	13 334.8
1990	983	931	88	909	8 895.0
1991	946	921	113	870	8 158.3
1992	897	886	176	809	7 004.3
1993	908	809	226	785	5 337.5
1994	877	825	236	871	6 342.1
1995	1 007	919	148	984	8 228.8
1996	1 051	953	144	945	7 506.0
1997	1 073	1 012	156	8	6 926.4
1998	1 117	1 034	157	– 0	4 631.0
1999	1 058	1 028	124	7	6 014.8
2000	1 183	1 084	91	0	8 649.2
2001	1 224	1 143	99	– 2	5 943.6

<sup>a</sup> Commercial stocks excluding those held by the former Soviet Union. <sup>b</sup> London Metal Exchange cash settlement price for refined nickel, melting grade. Prior to 1980, US producer price for electrolytic cathodes. <sup>s</sup> ABARE estimates prior to 1989. **na** Not available.

Sources: International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London; ABARE.

## Nickel

### 308 World nickel smelter/refinery production, by region and country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	48.6	45.3	50.1	52.5	53.9	53.4	50.2	52.9
South Africa <sup>b</sup>	30.1	29.8	33.9	34.8	36.4	36.2	36.6	33.4
Zimbabwe	18.5	15.5	16.2	17.6	17.4	17.2	13.6	19.5
Americas	187.3	226.4	242.0	257.5	264.1	238.5	252.9	264.4
Brazil	16.5	15.7	16.4	18.2	21.1	22.9	23.2	22.5
Canada	105.1	125.3	130.1	131.6	146.7	124.3	134.2	140.6
Colombia	20.8	24.6	22.9	25.2	28.1	28.3	27.7	38.4
Cuba	14.1	21.6	27.0	34.0	38.7	38.5	40.0	41.2
Dominican Republic	30.8	30.9	30.4	32.5	25.2	24.5	27.8	21.7
United States	0.0	8.3	15.1	16.0	4.3	0.0	0.0	0.0
Asia	149.7	183.8	184.1	178.3	175.1	187.7	221.8	213.5
China	31.3	38.1	44.2	39.9	40.1	44.8	50.9	49.5
Indonesia	5.8	10.7	9.4	10.0	8.5	9.2	10.1	10.3
Japan	112.6	135.0	130.5	128.4	126.5	133.7	160.7	153.7
Europe	332.9	344.2	360.9	406.0	417.3	419.2	403.1	438.3
Austria	2.1	2.0	2.0	2.0	1.8	1.5	1.3	1.5
Finland	20.1	21.2	33.3	39.2	46.0	52.8	54.3	54.6
France	10.0	10.3	11.2	10.7	11.8	11.7	12.3	13.0
Greece	16.2	17.2	17.8	17.6	15.0	13.0	17.5	17.7
Macedonia <sup>c</sup>	4.1	2.0	3.0	5.3	5.8	0.0	0.0	3.0
Norway	68.0	53.2	61.6	62.7	70.2	74.1	58.7	68.2
United Kingdom	28.4	35.2	38.6	36.1	39.1	38.1	38.0	33.8
Serbia	0.6	0.9	2.6	2.4	0.7	0.0	0.0	0.0
Russian Federation	180.9	200.0	190.0	230.0	227.0	228.0	221.0	245.0
Ukraine	2.5	2.2	0.9	0.0	0.0	0.0	0.0	1.5
Oceania	106.1	119.1	116.2	118.0	124.1	128.9	156.1	174.0
Australia	66.6	76.9	74.0	73.6	79.6	83.6	112.2	128.1
New Caledonia (Fr)	39.5	42.2	42.2	44.3	44.5	45.3	43.9	45.9
<b>World total</b>	<b>824.6</b>	<b>918.8</b>	<b>953.2</b>	<b>1 012.3</b>	<b>1 034.4</b>	<b>1 027.7</b>	<b>1 084.1</b>	<b>1 143.2</b>

<sup>a</sup> Includes the metal content of smelter/refinery production of electrolytic nickel, nickel pellets, briquettes, steel making powder, nickel salts, chemical grade nickel oxide, ferronickel, nickel oxide sinter and utility nickel. <sup>b</sup> Includes Bophuthatswana production. <sup>c</sup> Former Yugoslavian Republic of Macedonia.

Sources: International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London; ABARE.

# 309 World nickel mine production, by region and country <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Africa</b>	64.5	62.6	69.6	68.8	74.0	73.1	69.3	67.7
Botswana	20.6	21.1	24.2	22.9	24.8	25.8	24.4	23.9
South Africa <sup>b</sup>	30.1	29.8	33.9	34.8	36.4	36.2	36.6	36.4
Zimbabwe	13.8	11.7	11.6	11.2	12.7	11.1	8.3	7.4
<b>Americas</b>	253.8	300.4	326.1	336.3	363.1	349.5	384.4	379.9
Brazil <sup>c</sup>	20.1	19.2	20.5	20.5	32.5	32.5	35.6	34.2
Canada	149.9	181.8	192.6	190.5	208.2	186.2	190.7	193.9
Colombia	26.1	24.2	27.7	31.2	29.4	39.3	58.9	53.0
Cuba	26.9	42.7	53.6	61.5	67.8	67.0	71.4	76.5
Dominican Republic <sup>c</sup>	30.8	30.9	30.4	32.5	25.2	24.5	27.8	22.3
United States	0.0	1.6	1.3	0.0	0.0	0.0	0.0	0.0
Venezuela	0.0	0.0	0.0	0.0	0.0	0.0	2.5	11.4
<b>Asia</b>	136.5	152.9	149.8	140.0	146.1	151.6	173.1	176.7
China	36.9	41.8	43.8	46.7	47.7	50.1	51.0	51.5
Indonesia	81.2	86.6	87.9	71.1	74.1	89.1	98.2	102.1
Kazakhstan	8.5	9.9	3.5	4.0	3.6	0.0	3.6	0.0
Philippines	9.8	14.7	14.5	18.1	20.7	12.4	20.2	23.1
<b>Europe</b>	249.2	267.9	267.9	267.1	264.9	254.7	260.2	265.8
Finland	7.2	4.4	3.9	3.3	2.0	0.7	3.3	2.7
Greece <sup>c</sup>	18.8	19.9	21.6	18.4	17.0	16.1	19.5	20.8
Macedonia <sup>d</sup>	4.6	2.0	3.0	5.3	7.2	0.0	0.0	3.0
Norway	3.3	3.4	3.1	2.5	3.0	2.9	2.3	2.8
Russian Federation	212	235.0	232.0	235.0	235.0	235.0	235.0	235.0
Serbia	0.8	0.9	2.6	2.7	0.8	0.0	0.0	0.0
Ukraine	2.5	2.2	1.7	0.0	0.0	0.0	0.0	1.5
<b>Oceania</b>	173.2	223.4	237.8	260.4	269.2	229.7	294.0	323.0
Australia	75.9	102.7	113.0	123.4	143.9	119.6	166.5	205.4
New Caledonia (Fr)	97.3	120.7	124.8	137.1	125.3	110.1	127.5	117.6
<b>World total</b>	<b>877.2</b>	<b>1 007.1</b>	<b>1 051.2</b>	<b>1 073.2</b>	<b>1 117.3</b>	<b>1 058.5</b>	<b>1 183.5</b>	<b>1 224.1</b>

<sup>a</sup> Nickel content of all ores and concentrates. <sup>b</sup> Includes Bophuthatswana production. <sup>c</sup> Figures refer to nickel content of ferronickel. <sup>d</sup> Former Yugoslavian Republic of Macedonia.

Sources: International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London; ABARE.

## Nickel

### 310 World primary refined nickel consumption, by region and country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	14.9	20.6	24.8	31.0	31.2	33.2	32.2	31.2
South Africa	14.3	20.0	24.0	30.0	30.0	32.0	31.0	30.0
Other	0.6	0.6	0.8	1.0	1.2	1.2	1.2	1.2
Americas	170.0	186.1	185.5	185.1	183.0	193.2	192.4	165.9
Argentina	0.4	0.2	0.3	0.5	0.3	0.3	0.3	0.5
Brazil	14.2	15.3	14.8	14.4	15.7	19.6	21.7	21.1
Canada	16.7	12.4	14.2	10.6	11.5	15.0	15.0	11.0
Mexico	1.6	1.2	1.5	2.0	2.8	3.2	2.2	2.0
United States	136.3	155.2	153.1	155.6	150.0	152.0	150.0	129.1
Other	0.8	1.8	1.6	2.0	2.7	3.1	3.2	2.2
Asia	313.1	367.2	362.0	408.6	376.3	429.6	463.9	440.4
China	40.0	40.2	42.0	43.0	42.0	46.5	62.0	83.0
Chinese Taipei	26.0	48.0	50.0	68.0	70.0	89.0	90.0	81.0
Hong Kong, China	1.0	1.2	1.5	1.8	1.8	1.8	1.3	4.5
India	18.2	20.0	18.5	16.0	16.0	19.2	22.5	25.0
Japan	181.1	205.1	190.2	202.4	169.2	182.7	200.1	161.5
Korea, Rep. of	39.0	44.0	50.0	66.0	67.8	80.7	78.0	75.4
Thailand	1.7	2.5	2.4	2.0	1.6	2.1	2.0	2.2
Turkey	1.0	0.9	1.5	1.8	2.4	2.4	2.2	1.9
Other	5.1	5.3	6.0	7.6	5.5	5.2	5.8	5.9
Europe	368.6	403.8	370.5	389.8	416.6	423.5	432.0	460.5
Austria	3.5	3.5	3.0	3.0	3.3	3.3	4.2	5.6
Belgium–Luxembourg	25.0	28.0	25.4	28.0	30.0	28.0	28.5	28.2
Czech Republic	1.1	2.0	1.2	1.2	1.6	1.6	2.3	2.4
Finland	30.4	31.9	30.1	36.0	37.1	40.8	43.3	38.6
France	45.6	48.5	45.9	49.8	55.0	52.3	49.8	51.0
Germany	87.8	93.1	74.9	91.0	97.4	101.2	103.5	110.2
Italy	44.0	49.0	44.0	49.5	53.3	55.0	52.6	57.0
Norway	0.4	0.5	0.4	0.6	0.8	0.4	0.4	0.4
Poland	0.9	1.8	1.6	2.4	2.5	2.5	2.3	2.4
Romania	0.6	1.0	2.6	0.5	0.6	1.2	1.2	0.7
Russian Federation	35.0	36.2	35.0	20.0	18.0	17.0	21.0	28.0
Spain	25.0	27.2	28.5	30.0	31.0	37.8	37.8	43.8
Sweden	24.8	28.3	24.5	29.8	33.9	34.6	36.8	36.6
Switzerland	0.3	0.6	0.8	1.0	1.5	1.1	0.5	0.5
Ukraine	1.5	1.1	1.0	1.2	2.7	3.6	4.5	4.8
United Kingdom	38.0	40.9	38.7	33.0	31.5	29.2	32.4	37.5
Other	4.7	10.2	12.9	12.8	16.4	13.9	10.9	12.7
Oceania	1.7	1.8	1.9	1.9	2.1	2.1	2.0	2.0
Australia	1.4	1.5	1.6	1.6	1.6	1.6	1.6	1.6
New Zealand	0.3	0.3	0.3	0.3	0.5	0.5	0.4	0.4
<b>World total</b>	<b>871.0</b>	<b>983.5</b>	<b>944.8</b>	<b>1 016.4</b>	<b>1 009.2</b>	<b>1 081.6</b>	<b>1 122.6</b>	<b>1 100.0</b>

<sup>a</sup> Metal content. The consumption of primary unwrought nickel including refined nickel and nickel contained in other smelter/refinery products.

Sources: International Nickel Study Group, *World Nickel Statistics*, The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics*, London; ABARE.



# 311 Summary of Australian statistics for primary petroleum <sup>a</sup>

	Production of crude oil condensate and LPG	Exports of crude oil and other refinery feedstocks <sup>b</sup>	Exports of liquefied petroleum gas	Imports of crude oil and other refinery feedstocks	Production of natural gas and ethane <sup>c</sup>	Exports of liquefied natural gas <sup>d</sup>
	ML	ML	ML	ML	Gm <sup>3</sup>	Mt
1960-61	na	na	na	14 127	na	0
1961-62	na	na	na	14 895	0.00	0
1962-63	na	na	na	16 766	0.00	0
1963-64	80	na	na	17 561	0.00	0
1964-65	347	na	na	18 665	0.00	0
1965-66	504	na	na	19 965	0.00	0
1966-67	645	na	na	22 543	0.00	0
1967-68	1 902	na	na	23 013	0.01	0
1968-69	2 236	na	na	23 897	0.06	0
1969-70	4 919	na	na	23 176	0.78	0
1970-71	15 688	241	661	13 913	1.96	0
1971-72	20 266	1 090	1 193	11 174	2.63	0
1972-73	22 464	330	1 672	10 004	3.74	0
1973-74	25 223	305	1 984	10 469	4.45	0
1974-75	25 306	234	2 000	10 171	4.88	0
1975-76	26 059	243	1 950	9 702	5.45	0
1976-77	27 128	206	2 253	10 116	6.50	0
1977-78	28 287	221	2 855	11 214	7.18	0
1978-79	28 067	371	3 031	10 407	8.01	0
1979-80	26 823	127	2 764	11 263	9.24	0
1980-81	26 077	86	2 569	11 450	10.66	0
1981-82	25 419	44	2 622	12 460	11.80	0
1982-83	24 978	61	2 334	11 780	11.92	0
1983-84	29 960	1 056	2 851	8 553	12.49	0
1984-85	34 820	5 819	2 620	7 294	13.37	0
1985-86	35 750	5 051	2 977	6 186	14.69	0
1986-87	35 431	5 702	2 675	7 724	15.08	0
1987-88	35 187	6 453	2 402	9 577	15.68	0
1988-89	32 080	4 789	2 177	12 058	16.15	0
1989-90	36 003	7 202	1 983	11 603	20.27	2.01
1990-91	35 755	8 830	1 507	13 389	21.23	3.40
1991-92	35 171	8 967	1 568	15 332	23.49	4.66
1992-93	34 776	10 098	1 483	19 421	24.61	4.98
1993-94	32 960	9 538	1 290	20 296	26.76	6.03
1994-95	35 158	11 445	1 189	20 639	29.47	7.02
1995-96	34 365	10 899	1 469	23 703	30.24	7.48
1996-97	35 302	12 401	2 421	24 768	30.66	7.49
1997-98	38 862	14 785	2 824	25 017	31.92	7.65
1998-99	32 265	14 291	2 486	29 729	32.78	7.82
1999-00	42 279	20 877	2 857	26 936	34.04	7.92
2000-01	43 264	24 044	2 785	26 343	34.82	7.53
2001-02	40 747	23 936	3 211	27 308	36.97	7.60

<sup>a</sup> Export volumes for primary petroleum up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications. <sup>b</sup> Before 1983 exports were principally semiprocessed and re-export feedstocks. <sup>c</sup> Includes ethane, methane and noncommercial natural gas. <sup>d</sup> 1 million tonnes (Mt) of LNG is approximately equal to 1.31 billion cubic metres (Gm<sup>3</sup>) of gas; production began in 1989-90. <sup>s</sup> ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports*, cat. no. 5409.0, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra; Department of Resources and Energy, *Australian Energy Statistics*, AGPS, Canberra.

## Petroleum

# 312 Summary of Australian statistics for refined petroleum products <sup>a</sup>

	Production ML	Domestic consumption <sup>b</sup> ML	Imports		Exports <sup>c</sup>		Bunkers <sup>d</sup> \$m
			Volume ML	Value \$m	Volume ML	Value \$m	
1960-61	14 082	13 614	2 005	na	2 106	na	na
1961-62	14 931	14 320	1 869	na	2 420	na	na
1962-63	16 522	15 490	2 148	na	2 809	na	na
1963-64	17 514	17 479	2 066	na	2 285	na	na
1964-65	18 821	19 268	2 013	na	1 459	na	na
1965-66	20 353	20 953	1 899	na	1 099	na	na
1966-67	23 110	22 734	1 227	na	1 365	na	na
1967-68	25 229	24 837	1 123	na	1 374	na	na
1968-69	26 651	27 423	1 741	na	970	na	na
1969-70	27 884	29 317	2 860	na	1 440	na	na
1970-71	28 846	30 355	3 256	63	1 740	23	43
1971-72	29 524	31 754	3 978	78	2 321	46	44
1972-73	30 575	32 518	4 126	75	1 846	42	42
1973-74	33 853	36 587	4 422	133	2 488	96	70
1974-75	34 066	36 637	4 083	247	1 954	146	136
1975-76	34 106	36 991	4 009	290	2 192	144	137
1976-77	35 744	39 042	4 193	347	1 904	190	190
1977-78	36 992	39 813	4 104	360	1 956	224	na
1978-79	36 671	38 921	4 215	450	2 344	306	na
1979-80	36 654	39 315	4 540	710	1 882	427	na
1980-81	35 292	37 937	3 748	770	1 990	577	na
1981-82	35 877	37 676	2 939	629	1 955	539	na
1982-83	34 692	35 511	2 666	608	2 427	707	438
1983-84	35 586	36 929	2 526	559	2 925	803	394
1984-85	35 924	37 204	2 823	683	2 207	641	460
1985-86	35 171	36 260	2 761	712	2 383	673	437
1986-87	34 826	37 713	4 078	732	2 270	459	338
1987-88	37 579	39 395	3 319	629	2 738	563	406
1988-89	38 210	41 173	4 863	664	2 769	520	371
1989-90	39 424	41 678	5 855	930	2 422	520	416
1990-91	40 487	41 468	3 821	727	2 952	787	631
1991-92	41 440	41 804	3 131	455	3 819	769	522
1992-93	42 933	43 349	3 940	634	3 711	830	568
1993-94	43 104	44 561	3 057	606	3 507	747	512
1994-95	44 421	46 746	3 479	676	3 289	719	511
1995-96	46 343	48 193	3 522	765	4 101	933	586
1996-97	46 872	47 829	4 286	955	5 041	1 147	547
1997-98	47 400	48 395	3 263	766	4 941	1 097	505
1998-99	47 030	48 973	4 129	868	4 236	866	397
1999-00	47 630	50 450	4 632	1 375	4 116	1 202	666
2000-01	47 690	50 010	4 746	1 816	4 564	1 844	899
2001-02	46 677	50 598	4 655	1 625	3 409	1 234	760

<sup>a</sup> Export and import values up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications, with ABARE estimates of import values used from 1977-78 to 1980-81. <sup>b</sup> Includes fuels not marketed commercially and domestic sales of all ships and aircraft stores. <sup>c</sup> Excludes LPG. <sup>d</sup> Ships' and aircraft stores. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports*, cat. no. 5409.0, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Department of Resources and Energy, *Australian Energy Statistics*, AGPS, Canberra.

# 313 Australian production of primary petroleum

	Crude oil ML <sup>a</sup>	Condensate <sup>b</sup> ML	Crude oil and condensate ML	Liquefied petroleum gas ML	Natural gas <sup>c</sup> Gm <sup>3</sup>	Ethane Gm <sup>3</sup>
1965-66	504	na	504	na	0.00	0.00
1966-67	645	na	645	na	0.00	0.00
1967-68	1 902	na	1 902	na	0.01	0.00
1968-69	2 236	na	2 236	na	0.06	0.00
1969-70	4 882	na	4 882	37	0.78	0.00
1970-71	14 936	na	14 936	752	1.96	0.00
1971-72	19 038	na	19 038	1 228	2.63	0.00
1972-73	20 668	na	20 668	1 796	3.71	0.03
1973-74	23 193	na	23 193	2 030	4.40	0.05
1974-75	23 134	na	23 134	2 172	4.82	0.06
1975-76	23 827	na	23 827	2 232	5.38	0.07
1976-77	24 598	na	24 598	2 530	6.40	0.10
1977-78	25 369	na	25 369	2 918	7.05	0.13
1978-79	24 896	na	24 896	3 171	7.86	0.14
1979-80	23 711	na	23 711	3 112	9.09	0.15
1980-81	23 093	na	23 093	2 984	10.52	0.14
1981-82	22 386	na	22 386	3 033	11.65	0.15
1982-83	21 085	984	22 069	2 909	11.75	0.17
1983-84	25 732	1 096	26 828	3 132	12.31	0.18
1984-85	29 241	1 715	30 956	3 864	13.17	0.20
1985-86	29 782	1 952	31 734	4 016	14.50	0.20
1986-87	29 457	2 047	31 504	3 927	14.90	0.18
1987-88	28 551	2 713	31 264	3 923	15.48	0.20
1988-89	25 574	2 681	28 255	3 825	15.96	0.19
1989-90	28 744	3 250	31 994	4 009	20.08	0.19
1990-91	28 661	3 294	31 955	3 800	21.05	0.18
1991-92	27 780	3 529	31 309	3 862	23.30	0.19
1992-93	27 037	3 666	30 703	4 073	24.42	0.19
1993-94	25 216	3 730	28 945	4 015	26.57	0.19
1994-95	26 795	4 395	31 190	3 969	29.26	0.20
1995-96	24 058	6 193	30 251	4 113	30.04	0.20
1996-97	24 164	6 885	31 049	4 253	30.23	0.43
1997-98	25 779	8 183	33 961	4 901	31.35	0.57
1998-99	19 937	7 960	27 897	4 368	32.22	0.56
1999-00	29 594	7 861	37 447	4 832	33.43	0.61
2000-01	31 664	7 041	38 705	4 558	34.34	0.48
2001-02	28 932	7 162	36 100	4 647	36.35	0.62

<sup>a</sup> 58 030 million litres equals 1 million barrels a day. <sup>b</sup> Before 1982-83, condensate production is included in crude oil. <sup>c</sup> Includes noncommercial natural gas and methane from other than natural gas fields. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Resource Economics, *Australian Energy Projections, Australia: 1961-62 to 1998-99*, AGPS, Canberra; DITR, *Australian Petroleum Statistics (previously Major Energy Statistics)*, Canberra.

## Petroleum

### 314 Australian production of refined petroleum products

	1993-94 ML	1994-95 ML	1995-96 ML	1996-97 ML	1997-98 ML	1998-99 ML	1999-00 ML	2000-01 ML	2001-02 ML
Automotive gasoline	17 724	17 911	18 358	18 084	18 589	18 705	18 652	17 887	18 000
Automotive diesel oil	11 063	11 365	12 200	12 968	13 183	12 968	12 737	13 212	13 064
Aviation turbine fuel	4 319	4 410	4 882	5 284	5 423	5 218	5 539	5 836	5 390
Fuel oil	2 263	2 431	1 998	1 796	1 662	1 634	1 839	1 951	1 684
Liquefied petroleum gas <sup>a</sup>	1 057	1 205	1 448	1 605	1 518	1 691	1 674	1 795	1 718
Industrial and marine diesel fuel	95	129	78	45	48	32	60	98	105
Bitumen	661	621	635	638	689	695	719	693	725
Lubricants	708	776	810	788	771	680	649	641	564
Aviation gasoline	153	156	169	137	152	174	158	137	147
Heating oil	203	190	219	243	216	167	217	194	192
Other <sup>a</sup>	4 859	5 228	5 545	5 284	5 147	5 065	5 387	5 245	5 088
Total products	43 104	44 421	46 343	46 872	47 400	47 030	47 630	47 690	46 677

<sup>a</sup> Includes byproducts of petrochemical and downstream processing.

Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99*, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra.

### 315 Australian consumption of petroleum

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Crude oil and other refinery feedstock</b>									
Stock	days <sup>a</sup>	22	23	24	23	22	23	26	23
Refinery input	ML	41 128	43 203	44 444	45 591	44 401	44 500	44 708	42 911
<b>Refined products</b>									
Automotive gasoline	ML	17 751	17 884	17 905	17 950	18 230	18 477	18 168	18 669
Automotive diesel oil	ML	11 182	11 939	12 321	12 564	12 825	13 245	12 952	13 441
Aviation turbine fuel	ML	4 302	4 665	4 848	4 863	4 791	5 023	5 319	4 207
Fuel oil	ML	2 152	2 131	2 016	1 774	1 861	2 200	1 705	1 777
Liquefied petroleum gas	ML	4 477	4 448	4 160	4 362	4 570	4 456	3 979	4 270
Industrial and marine diesel fuel	ML	81	56	72	62	14	18	22	46
Bitumen	ML	698	700	733	714	716	781	716	755
Lubricants	ML	497	517	517	517	502	526	532	652
Aviation gasoline	ML	104	102	103	104	106	103	101	97
Heating oil	ML	112	113	118	106	77	81	63	50
Other <sup>b</sup>	ML	5 391	5 639	5 037	5 355	5 450	5 540	6 467	6 634
Total products	ML	46 746	48 193	47 829	48 371	49 143	50 450	50 024	50 598

<sup>a</sup> Days of forward consumption. <sup>b</sup> Includes petrochemical and noncommercial use of all products plus refinery fuel, but petroleum products produced from the conversion of other petroleum products have been netted off.

Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99*, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra.

# 316 Australian production of primary petroleum, by basin

	1994-95 ML	1995-96 ML	1996-97 ML	1997-98 ML	1998-99 ML	1999-00 ML	2000-01 ML	2001-02 ML
<b>Crude oil</b>								
Adavale	0	0	0	0	0	0	0	0
Amadeus	146	169	159	131	107	91	80	72
Bonaparte	1 588	1 377	981	804	663	6 177	8 898	5 985
Bowen-Surat	55	53	68	80	64	35	45	39
Canning	15	17	10	8	8	5	6	4
Carnarvon								
Barrow Island	803	757	776	744	711	683	646	580
North West Shelf	0	2 039	4 154	3 552	1 883	5 495	6 815	8 359
Other	9 009	6 840	5 502	6 439	6 261	5 191	5 739	5 105
Cooper-Eromanga								
Queensland	804	723	695	609	585	512	474	432
South Australia	809	696	673	629	559	422	439	490
Gippsland	13 519	11 365	11 128	12 769	9 088	10 987	8 523	7 860
Otway	0	0	0	0	0	0	0	0
Perth	29	23	17	13	9	6	1	5
<b>Total</b>	<b>26 777</b>	<b>24 058</b>	<b>24 163</b>	<b>25 779</b>	<b>19 938</b>	<b>29 604</b>	<b>31 664</b>	<b>28 933</b>
<b>Condensate</b>								
Adavale	0	0	0	0	0	0	0	0
Amadeus	0	0	0	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen-Surat	73	76	45	28	18	18	18	13
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	0	81	185	202	300	365	366
North West Shelf	2 761	4 568	5 349	6 545	6 346	6 038	5 121	5 224
Other	58	75	83	72	71	205	118	110
Cooper-Eromanga								
Queensland	159	164	139	142	181	198	141	203
South Australia	468	421	386	412	490	447	467	378
Gippsland	867	882	795	789	644	652	805	859
Otway	4	4	4	6	7	2	4	12
Perth	4	3	3	2	1	2	2	1
<b>Total</b>	<b>4 395</b>	<b>6 193</b>	<b>6 885</b>	<b>8 183</b>	<b>7 960</b>	<b>7 861</b>	<b>7 041</b>	<b>7 167</b>
<b>Liquefied petroleum gas</b>								
Adavale	0	0	0	0	0	0	0	0
Amadeus	0	0	0	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen-Surat	115	119	81	54	25	20	22	18
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	0	0	0	0	0	0	0
North West Shelf	0	386	780	1 280	1 355	1 564	1 493	2 028
Other	0	0	0	0	0	0	0	0
Cooper-Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	936	897	803	810	890	895	816	768
Gippsland	2 558	2 247	2 125	2 292	1 634	1 889	1 725	1 799
Otway	0	0	0	0	0	0	0	0
Perth	0	0	0	0	0	0	0	0
<b>Total</b>	<b>3 609</b>	<b>3 649</b>	<b>3 789</b>	<b>4 437</b>	<b>3 904</b>	<b>4 368</b>	<b>4 056</b>	<b>4 612</b>

Continued

## Petroleum

### 316 Australian production of primary petroleum, by basin *(continued)*

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	GL	GL	GL	GL	GL	GL	GL	GL
<b>Naturally occurring ethane and natural gas<sup>a</sup></b>								
Adavale	0	53	54	43	28	21	19	15
Amadeus	362	399	443	461	459	476	459	1 028
Bonaparte	0	0	0	0	0	0	0	0
Bowen-Surat	1 182	1 185	948	723	682	713	614	518
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	36	35	214	500	606	942	929	452
North West Shelf	14 559	15 334	14 861	15 837	16 343	16 357	16 042	16 561
Other	760	1 045	1 221	1 031	1 171	1 027	1 384	1 359
Cooper-Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	5 317	5 124	5 540	5 829	6 274	6 456	5 764	6 308
Gippsland	6 598	6 526	5 916	5 971	5 308	5 329	6 304	6 355
Otway	125	135	139	154	157	209	203	316
Perth	358	352	416	339	215	263	286	188
Total	29 298	30 187	29 752	30 889	31 243	31 792	32 004	33 099

<sup>a</sup> Does not include methane or ethane produced from other than natural gas fields.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra.

# 317

## Volume of Australian trade in petroleum

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Exports</b>									
Automotive gasoline	ML	648	1 127	1 293	1 521	1 533	1 371	1 288	1 186
Automotive diesel oil	ML	594	1 109	1 306	1 266	1 218	1 018	1 157	449
Aviation turbine fuel	ML	284	552	708	658	547	579	755	549
Fuel oil	ML	853	629	928	633	253	585	724	293
Industrial and marine diesel fuel	ML	79	92	56	39	13	51	119	60
Aviation gasoline	ML	42	69	43	56	74	79	28	71
Kerosene	ML	143	18	31	33	31	10	10	2
Lubricants	ML	447	351	363	401	319	258	278	163
Other	ML	199	154	312	335	249	164	203	197
Total refined products	ML	3 289	4 101	5 041	4 941	4 236	4 116	4 564	3 409
Liquefied petroleum gas <sup>a</sup>	MT	1 189	1 469	2 421	2 824	2 486	2 857	2 785	3 211
Bunkers <sup>b</sup>	ML	2 245	2 565	2 294	2 203	2 305	2 314	2 291	2 267
Crude oil and other refinery feedstock	ML	11 445	10 899	12 401	14 785	14 291	20 877	24 044	23 936
Liquefied natural gas <sup>c</sup>	ML	7.018	7.482	7.486	7.650	7.819	7.923	7.530	7.600
<b>Imports</b>									
Automotive gasoline	ML	604	421	1 074	483	890	1 065	1 189	1 436
Diesel fuel	ML	767	1 110	952	770	1 435	1 400	1 129	1 280
Automotive diesel oil	ML	735	1 027	927	na	na	na	na	na
Industrial and marine diesel fuel	ML	31	83	25	na	na	na	na	na
Aviation turbine fuel	ML	231	301	306	111	140	171	387	225
Fuel oil	ML	948	720	809	795	596	799	814	557
Lubricants	ML	56	30	21	39	57	82	33	57
Liquefied petroleum gas	ML	266	415	588	511	496	519	633	588
Other	ML	608	525	537	555	514	597	561	511
Total refined products	ML	3 479	3 522	4 286	3 263	4 129	4 632	4 746	4 655
Crude oil and other refinery feedstock	ML	20 639	23 703	24 768	25 017	29 729	26 936	26 343	27 308

<sup>a</sup> Mostly naturally occurring. <sup>b</sup> Ship and aircraft stores. <sup>c</sup> 1 tonne of LNG is approximately equal to 2174 litres of LNG. <sup>s</sup> ABARE estimate. **na** Not available.  
 Sources: ABARE, *Australian Mineral Statistics*, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra.

## Petroleum

### 318 Value of Australian trade in petroleum

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
<b>Exports</b>								
Automotive gasoline	121	217	264	304	262	366	500	389
Automotive diesel oil	108	224	295	242	193	251	446	146
Aviation turbine fuel	55	123	167	135	93	169	301	184
Fuel oil	110	79	129	86	28	116	183	70
Industrial and marine								
diesel fuel	19	28	18	14	5	17	52	21
Aviation gasoline	13	19	14	20	24	34	17	33
Kerosene	27	5	8	6	5	2	5	1
Lubricants	211	192	181	214	196	184	238	164
Other products	54	46	71	76	60	65	103	226
Total refined products	719	933	1 147	1 097	866	1 202	1 844	1 234
Liquefied petroleum gas	154	189	356	367	297	648	830	721
Bunkers <sup>a</sup>	511	586	547	505	397	666	899	760
Crude oil and other refinery								
feedstock	1 726	1 675	2 119	2 251	1 881	5 292	8 137	6 390
Liquefied natural gas	1 201	1 372	1 537	1 599	1 425	1 949	2 671	2 613
<b>Imports</b>								
Automotive gasoline	112	85	225	93	134	321	432	448
Diesel fuel	141	219	208	149	225	377	438	414
Automotive diesel oil	135	202	201	94	0	0	0	202
Industrial and marine								
diesel fuel	6	17	7	4	0	0	0	0
Aviation turbine fuel	43	62	66	22	24	48	154	68
Fuel oil	116	89	104	96	59	150	222	143
Lubricants	64	56	52	81	107	111	60	126
Liquefied petroleum gas	36	55	87	68	64	108	160	116
Other products	164	199	213	257	255	262	350	310
Total refined products	676	765	955	766	868	1 375	1 816	1 625
Crude oil and other refinery								
feedstock	3 002	3 562	4 233	3 707	3 794	6 313	8 753	7 458

<sup>a</sup> Ships and aircraft stores.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra.



# 319 Australian exports of petroleum, by destination <sup>a</sup>

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity</b>									
<b>Crude oil and other refinery feedstock</b>									
China	ML	38	315	204	317	758	1 676	912	1 051
Chinese Taipei	ML	1 344	2 336	2 163	2 066	2 200	2 561	3 712	1 920
Japan	ML	3 480	2 490	2 451	2 832	2 954	3 528	4 068	3 168
Korea, Rep. of	ML	691	702	1 214	1 564	2 005	4 338	4 358	5 521
New Zealand	ML	584	639	1 145	880	779	556	613	1 426
Singapore	ML	1 434	1 342	949	1 613	1 691	3 831	6 079	6 215
United States	ML	1 693	938	2 231	3 558	2 768	3 462	2 962	2 674
Other	ML	625	544	492	586	1 139	2 177	1 839	1 988
Total	ML	9 891	9 307	10 849	13 414	14 294	22 128	24 544	23 965
<b>Liquefied petroleum gas</b>									
China	ML	0	124	992	771	778	605	416	441
Japan	ML	465	1 058	1 093	1 541	1 167	1 844	2 241	2 572
Korea, Rep. of	ML	na	na	0	0	215	188	61	127
Other	ML	708	80	57	237	161	219	67	71
Total <b>b</b>	ML	1 189	1 469	2 421	2 824	2 486	2 857	2 785	3 211
<b>Refined products</b>									
Fiji	ML	435	565	613	633	576	624	748	473
Japan	ML	105	50	283	197	219	67	18	220
New Zealand	ML	389	1 079	1 165	1 206	1 305	1 245	1 086	1 247
Singapore	ML	860	710	1 059	906	319	561	697	367
Other Pacific	ML	60	208	129	195	239	120	150	151
United States	ML	81	92	196	256	184	380	331	153
Other	ML	1 358	1 398	1 597	1 549	1 394	1 119	1 534	798
Total	ML	3 289	4 101	5 041	4 941	4 236	4 116	4 564	3 409
<b>Value <sup>c</sup></b>									
<b>Crude oil and other refinery feedstock</b>									
China	\$m	6	51	31	51	106	432	317	283
Chinese Taipei	\$m	198	344	354	304	287	629	1 284	508
Japan	\$m	529	370	420	443	400	899	1 394	854
Korea, Rep. of	\$m	97	106	224	226	253	1 117	1 486	1 490
New Zealand	\$m	92	109	212	155	115	142	213	406
Singapore	\$m	208	204	148	243	211	943	1 973	1 597
United States	\$m	250	146	370	517	367	892	1 012	693
Other	\$m	345	345	360	312	141	238	458	558
Total	\$m	1 726	1 675	2 119	2 251	1 881	5 292	8 137	6 390
<b>Liquefied petroleum gas</b>									
China	\$m	0	13	148	94	97	128	125	96
Japan	\$m	54	139	76	196	136	425	666	579
Korea, Rep. of	\$m	0	na	0	0	26	42	19	30
Other	\$m	96	10	113	37	21	54	19	16
Total <b>b</b>	\$m	154	189	356	367	297	648	830	721
<b>Refined products</b>									
Fiji	\$m	83	118	140	128	99	165	293	161
Japan	\$m	29	14	60	41	48	23	9	68
New Zealand	\$m	93	241	280	273	262	379	461	437
Singapore	\$m	144	133	174	165	58	117	201	112
Other Pacific	\$m	17	48	33	42	44	36	40	55
United States	\$m	17	21	40	54	42	114	154	56
Other	\$m	336	358	420	393	314	368	686	345
Total	\$m	719	933	1 147	1 097	866	1 202	1 844	1 234

<sup>a</sup> Does not include LNG exports or ships and aircraft stores. <sup>b</sup> Includes confidential exports. <sup>c</sup> Actual values are used and aggregated for each category.

na Not available.

Sources: DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra; ABS; ABARE.

## Petroleum

### 320 Australian imports of petroleum, by source

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Quantity</b>									
<b>Crude oil and other refinery feedstock</b>									
Indonesia	ML	2 560	4 713	5 435	7 131	9 648	4 176	3 788	6 795
Malaysia	ML	291	839	314	888	1 576	2 811	2 249	2 290
New Zealand	ML	1 180	1 093	2 069	1 544	1 792	1 251	1 104	1 089
Other Middle East	ML	306	340	711	432	1 751	985	453	42
Papua New Guinea	ML	4 144	4 667	3 951	2 987	3 228	3 549	2 772	2 208
Qatar	ML	1 293	1 273	614	854	211	470	439	646
Saudi Arabia	ML	4 304	4 469	3 681	3 706	2 828	3 294	4 016	3 004
Singapore	ML	702	983	529	622	257	61	287	554
United Arab Emirates	ML	4 223	3 153	4 595	3 081	1 197	1 642	3 170	2 305
Viet Nam	ML	1 341	1 451	1 901	3 259	6 086	6 157	6 282	5 652
Other	ML	295	723	968	512	1 156	2 538	1 784	2 724
Total	ML	20 639	23 703	24 768	25 017	29 729	26 936	26 343	27 308
<b>Refined products</b>									
Indonesia	ML	115 s	125 s	63 s	84	56	41	121	87
Korea, Rep. of	ML	68	50	35	47	139	0	141	289
Malaysia	ML	59 s	77 s	36 s	64	42	69	6	29
Middle East	ML	323 s	569 s	913 s	375	666	555	775	474
New Zealand	ML	23	50	72	115	51	83	19	42
Singapore	ML	1 089	1 387	1 460	943	1 726	1 730	1 688	2 124
United States	ML	798 s	871 s	409 s	430	365	379	367	462
Other a	ML	1 004	394	1 299	1 206	1 084	1 779	1 610	1 169
Total	ML	3 479	3 522	4 286	3 263	4 129	4 637	4 726	4 676
<b>Value</b>									
<b>Crude oil and other refinery feedstock</b>									
Indonesia	\$m	374	723	951	1 109	1 266	942	1 295	1 846
Malaysia	\$m	47	133	61	134	214	666	770	647
New Zealand	\$m	172	168	364	231	234	307	379	309
Other Middle East	\$m	42	47 s	116 s	59 s	214	227	138	12
Papua New Guinea	\$m	618	736	730	463	435	867	974	601
Qatar	\$m	181	167	92	116	27	90	141	191
Saudi Arabia	\$m	590	617	563	493	317	751	1 201	758
Singapore	\$m	103	160	86	96	32	13	98	149
United Arab Emirates	\$m	607	447	766	442	146	363	1 041	674
Viet Nam	\$m	202	225	312	477	765	1 454	2 115	1 528
Other	\$m	66	139	192	86	143	633	601	743
Total	\$m	3 002	3 562	4 233	3 707	3 794	6 313	8 753	7 458
<b>Refined products</b>									
Indonesia	\$m	14	18	26	13	11	11	41	23
Korea, Rep. of	\$m	14	13	9	18	23	121	64	101
Malaysia	\$m	9	13	12	12	11	18	3	11
Middle East	\$m	58	91 s	170	64	91	112	243	94
New Zealand	\$m	3	8	10	19	7	19	8	12
Singapore	\$m	208	277	315	194	281	481	655	684
United States	\$m	145	189	200	256	251	240	255	321
Other a	\$m	226	156	211	190	194	374	547	379
Total	\$m	676	765	955	766	868	1 375	1 816	1 625

a Includes confidential imports of refined products. s ABARE estimate.

Sources: DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics*), Canberra; ABS; ABARE.

# 321 World crude oil supply and demand <sup>a</sup>

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Supply</b>									
OPEC <sup>b</sup>	mbd	27.0	27.7	28.5	29.9	30.8	29.4	30.8	30.2
Non-OPEC									
Asia Pacific	mbd	2.7	2.8	2.8	2.8	3.0	3.0	3.2	3.2
China	mbd	2.8	3.0	3.1	3.2	3.2	3.2	3.2	3.3
Europe	mbd	7.2	7.6	8.0	8.0	8.1	8.3	8.4	8.4
Mexico	mbd	3.1	3.1	3.3	3.4	3.5	3.4	3.5	3.6
Middle East Africa	mbd	3.9	4.4	4.6	4.6	4.6	4.7	4.8	4.9
North America	mbd	10.9	11.0	11.1	11.2	11.0	10.7	10.8	10.9
Russian Federation	mbd	6.3	6.2	6.0	6.1	6.1	6.2	6.5	7.0
South America	mbd	2.8	3.0	3.3	3.4	3.6	3.8	3.8	3.8
Total <sup>c</sup>	mbd	68.6	70.1	72.0	74.3	75.5	74.1	76.7	76.9
<b>Demand</b>									
Africa	mbd	2.1	2.2	2.2	2.3	2.4	2.3	2.4	2.5
China	mbd	3.1	3.3	3.7	4.1	4.2	4.5	4.8	4.9
Japan and Korea, Rep. of	mbd	7.5	7.7	7.9	8.0	7.4	7.6	7.6	7.5
Latin America	mbd	6.0	6.0	6.2	6.3	6.7	6.8	6.9	6.8
Middle East	mbd	4.0	4.1	4.2	4.2	4.2	4.3	4.7	4.9
North America	mbd	19.7	19.8	20.3	20.9	21.2	21.9	22.1	21.9
Russian Federation	mbd	3.2	3.0	2.6	2.9	2.4	2.4	2.4	2.5
Western Europe <sup>d</sup>	mbd	8.5	8.6	8.6	8.6	8.7	8.5	8.4	8.4
Other Asia Pacific	mbd	6.3	6.9	7.3	7.8	7.7	8.0	8.3	8.4
Other Europe	mbd	8.2	8.5	8.7	8.7	8.8	8.5	8.6	8.7
Total	mbd	68.6	70.1	71.8	73.8	73.5	74.7	76.2	76.5
OECD stocks <sup>e</sup>	days	58	54	54	56	56	51	52	55

<sup>a</sup> Includes crude oil, marine bunkers, refinery fuel, nonconventional oil and natural gas liquids. <sup>b</sup> Includes natural gas liquids produced by OPEC (around 3 million barrels a day). <sup>c</sup> Includes around 1.7 million barrels a day net gain in the processing of primary fuels other than crude oil. <sup>d</sup> France, Germany, Italy and United Kingdom. <sup>e</sup> Industry stocks measured in days of forward consumption at 31 December.

Sources: BP Statistical Review of World Energy; International Energy Agency, *Monthly Oil Market Report*, OECD, Paris; Energy Information Administration, US Department of Energy, Washington DC.

## Petroleum

### 322 Prices for crude oil, by origin <sup>a</sup>

	Arab light <sup>b</sup> US\$/bbl	Dubai <sup>c</sup> US\$/bbl	Brent <sup>d</sup> US\$/bbl	WTI <sup>e</sup> US\$/bbl	Gippsland <sup>f</sup> US\$/bbl	
<i>New predominance of spot price markets</i>						
1982-83	28.35	29.71	31.46	31.66	33.24	(Australian IPP)
1983-84	27.78	27.90	29.80	30.50	29.70	(Australian IPP)
1984-85	27.42	26.90	27.46	27.50	29.15	(Australian IPP)
1985-86	12.57	19.91	21.48	21.85	16.60	(Australian IPP)
	World trade weighted <sup>g</sup> US\$/bbl	Dubai <sup>c</sup> US\$/bbl	Brent <sup>d</sup> US\$/bbl	WTI <sup>e</sup> US\$/bbl	Gippsland <sup>f</sup> US\$/bbl	
<b>1986 quarter</b>						
September	11.86	11.06	12.56	13.98	12.25	(Australian IPP)
December	13.58	13.91	14.88	15.65	16.60	(Australian IPP)
<b>1987 quarter</b>						
March	17.28	16.91	18.46	17.28	19.16	(Australian IPP)
June	17.57	17.07	18.53	19.30	20.12	(Australian IPP)
<i>Start of non-transparent price calculations</i>						
September	17.73	17.40	19.11	20.47	28.63	(Australian IPP)
December	17.12	16.34	17.97	18.65	27.44	(Australian IPP)
<b>1988 quarter</b>						
March	15.20	14.66	15.53	16.68	16.47	(Australian IPP)
June	15.00	14.55	15.90	17.52	16.23	(Australian IPP)
September	13.34	12.09	13.78	14.54	14.36	(Australian IPP)
December	11.72	11.09	13.45	14.70	13.18	(Australian IPP)
<b>1989 quarter</b>						
March	15.49	15.00	17.39	18.46	17.80	
June	17.33	15.72	18.20	20.25	19.17	
September	16.26	15.32	17.54	19.85	17.75	
December	17.42	16.18	19.04	20.02	18.86	
<b>1990 quarter</b>						
March	18.14	16.63	19.76	21.75	19.97	
June	14.43	14.01	16.35	17.84	16.50	
September	24.12	25.58	26.64	26.57	24.29	
December	29.15	27.53	32.27	31.88	34.08	
<b>1991 quarter</b>						
March	17.98	15.85	20.37	21.12	21.50	
June	16.56	15.57	18.93	20.86	19.05	
September	17.61	16.91	19.91	21.66	20.33	
December	18.57	17.54	20.48	21.75	22.45	
<b>1992 quarter</b>						
March	16.37	15.55	17.89	18.86	18.78	
June	18.49	17.94	20.15	21.17	20.10	
September	19.04	18.42	20.27	21.33	22.15	
December	18.08	17.26	19.20	20.46	20.27	
<b>1993 quarter</b>						
March	16.87	15.84	18.29	19.83	19.25	
June	16.95	15.93	18.16	19.74	19.25	
September	15.16	14.32	16.46	17.63	17.61	
December	14.02	13.54	14.86	16.83	15.67	

*Continued*

# 322 Prices for crude oil, by origin <sup>a</sup> (continued)

	World trade weighted <sup>g</sup> US\$/bbl	Dubai <sup>c</sup> US\$/bbl	Brent <sup>d</sup> US\$/bbl	WTI <sup>e</sup> US\$/bbl	Gippsland <sup>f</sup> US\$/bbl
<b>1994 quarter</b>					
March	13.34	12.75	14.00	14.83	14.86
June	15.28	14.74	16.17	17.81	15.74
September	16.45	15.85	16.95	18.50	17.43
December	16.15	15.63	16.57	17.66	16.38
<b>1995 quarter</b>					
March	16.90	16.34	17.04	18.40	17.80
June	17.80	16.96	18.12	19.38	18.36
September	15.98	15.33	16.15	17.87	17.01
December	16.55	15.87	17.03	18.17	17.62
<b>1996 quarter</b>					
March	18.13	16.49	18.64	19.78	19.53
June	19.09	17.24	19.24	21.72	19.26
September	20.22	19.51	21.10	22.43	20.08
December	22.75	21.64	23.30	24.65	23.68
<b>1997 quarter</b>					
March	20.69	20.93	19.94	22.81	22.68
June	17.53	18.04	17.83	19.98	19.56
September	17.59	17.73	18.73	19.80	19.46
December	17.80	17.97	18.93	19.92	20.23
<b>1998 quarter</b>					
March	12.78	12.59	14.54	16.01	15.01
June	11.95	12.30	13.86	14.72	14.62
September	11.87	11.69	12.75	13.59	12.85
December	11.11	11.56	11.73	13.00	12.57
<b>1999 quarter</b>					
March	10.93	11.13	11.53	13.11	11.57
June	15.33	15.28	15.85	17.67	16.15
September	20.10	19.68	20.89	21.63	20.00
December	23.46	23.55	24.51	26.72	24.34
<b>2000 quarter</b>					
March	26.33	25.57	26.72	29.05	26.75
June	26.31	24.17	25.29	27.33	27.98
September	28.79	25.72	26.95	28.97	31.89
December	28.58	28.56	30.77	32.28	31.10
<b>2001 quarter</b>					
March	24.33	23.63	26.14	28.60	26.81
June	25.57	25.15	27.28	27.93	28.18
September	24.24	24.16	25.40	26.78	25.26
December	18.40	18.52	19.40	20.50	20.27
<b>2002 quarter</b>					
March	19.78	20.32	21.29	21.82	21.03
June	23.95	24.33	25.06	26.29	25.49

<sup>a</sup> Based on daily prices unweighted and averaged over the period using posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes after 1980. <sup>b</sup> Saudi Arabian light crude, 34 API gravity. <sup>c</sup> Middle East crude, 32 API gravity. <sup>d</sup> North Sea crude, 38 API gravity. <sup>e</sup> North American crude, 40 API gravity. <sup>f</sup> Australian crude, 42 API gravity. Price series discontinued in 1988. <sup>g</sup> Quarterly averages of weekly rates; average contract selling prices fob of internationally traded crude oils only, weighted by estimated export volume.

Sources: ABARE averaging of daily prices using: Middle East Petroleum and Economic Publications, *International Crude Oil and Product Prices*, London; Department of Resources and Energy, *Australian Energy Statistics*, AGPS, Canberra; Energy Information Administration, US Department of Energy, Washington DC; *Platts Oilgram Price Reports*, London; Reuterlink.

## Salt

### 323 Summary of Australian statistics for salt

	Production	Exports		
	kt	Volume kt	Value \$m	Unit value <sup>a</sup> \$/t
1960	471	19	0.3	15.79
1961	517	61	0.7	11.48
1962	545	76	0.7	9.21
1963	591	122	0.8	6.56
1964	554	119	0.8	6.72
1965	665	115	0.6	5.22
1966	655	95	0.5	5.26
1967	714	89	0.5	5.62
1968	914	228	0.9	3.95
1969	1 680	775	2.1	2.71
1970	3 071 <sup>b</sup>	2 331	8.2	3.52
1971	3 788 <sup>b</sup>	2 815	9.0	3.20
1972	3 340 <sup>b</sup>	2 417	7.0	2.90
1973	4 204	3 475	10.6	3.05
1974	5 009	4 211	15.4	3.66
1975	4 660	3 652	17.5	4.79
1976	5 489	4 258	26.9	6.32
1977	4 716	4 057	29.5	7.27
1978	5 873	4 654	32.9	7.07
1979	5 215	4 513	33.3	7.38
1980	5 665	4 515	44.3	9.81
1981	6 716	3 964	44.0	11.10
1982	4 811	4 144	55.2	13.32
1983	5 170	4 535	69.4	15.30
1984	5 695	4 783	74.7	15.62
1985	5 835	5 166	97.4	18.85
1986	6 131	5 213	102.0	19.57
1987	6 486	2 745 <sup>c</sup>	56.0 <sup>c</sup>	20.40
1988	6 958 <sup>b</sup>	6 206	117.2	18.89
1989	7 070 <sup>d</sup>	6 194	121.5	19.61
1990	7 229 <sup>d</sup>	6 466	136.3	21.08
1991	7 768 <sup>d</sup>	7 061	165.6	23.46
1992	7 693 <sup>d</sup>	7 028	174.9	24.89
1993	7 553 <sup>d</sup>	6 982	185.5	26.56
1994	7 792 <sup>d</sup>	7 259	174.1	23.99
1995	8 298 <sup>d</sup>	7 649	176.5	23.08
1996	7 993 <sup>d</sup>	7 651	166.6	21.77
1997	8 883 <sup>d</sup>	8 187	190.9	23.32
1998	9 033 <sup>d</sup>	8 701	233.4	26.82
1999	9 888 <sup>d</sup>	8 418	213.7	25.38
2000	8 847 <sup>d</sup>	8 257	221.7	26.85
2001	9 244 <sup>d</sup>	8 817	267.1	30.29

<sup>a</sup> Average export unit value of all salt, bulk, bagged and table. <sup>b</sup> Excludes Victoria. <sup>c</sup> Excludes salt, common, in bulk from 1 January to 30 June.

<sup>d</sup> Excludes Victoria and the Northern Territory.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## 324 Australian supply and disposal of salt

	Unit	1995	1996	1997	1998	1999	2000	2001
<b>Production</b>								
Queensland	kt	345	208	175	342	249	137	140
South Australia	kt	662	585	592	501	587	1 004	693
Western Australia <sup>a</sup>	kt	7 291	7 200	8 116	8 191	9 052	7 706	8 410
Total <sup>b</sup>	kt	8 298	7 993	8 883	9 033	9 888	8 847	9 244
<b>Exports (all types) <sup>c</sup></b>								
Total	kt	7 649	7 651	8 187	8 701	8 418	8 257	8 817
	\$m	177	167	191	233	214	222	267
<b>Imports</b>								
Common salt	t	10 263	10 936	12 522	12 310	14 070	14 988	14 869
	\$'000	2 522	2 660	2 978	3 299	3 327	3 447	3 591

<sup>a</sup> Sales. <sup>b</sup> Excludes Victoria and Northern Territory. <sup>c</sup> Individual country data not available from 1993 as a result of confidentiality restrictions.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## 325 World production of salt, by country

	1994	1995	1996	1997	1998	1999	2000	2001
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Argentina	0.8	1.0	1.1	0.8	0.8	1.3	1.0	1.0
Australia	7.8	8.3	8.0	8.9	9.0	9.9	8.8	9.2
Brazil	6.0	5.8	5.4	6.5	6.8	6.0	6.0	7.0
Canada	11.5	10.9	12.2	13.3	13.3	12.7	11.9	12.5
Chile	3.2	3.5	4.0	5.5	6.2	6.1	6.0	6.0
China <sup>a</sup>	29.7	29.8	29.0	30.8	22.4	28.1	31.3	32.0
Egypt	1.0	1.2	1.1	1.2	1.4	1.4	1.4	1.4
France	5.7	7.9	7.9	7.1	7.0	7.0	7.0	7.1
Germany	12.7	12.4	15.9	15.8	15.7	15.7	15.7	15.8
India	9.5	12.5	14.5	14.3	12.0	14.5	14.5	14.5
Iran	0.9	1.0	1.0	1.2	1.9	1.6	1.6	1.6
Italy	4.1	4.4	3.5	3.5	3.6	3.6	3.6	3.6
Japan	1.4	1.4	1.4	1.3	1.3	1.3	1.4	1.4
Mexico	7.5	7.7	8.5	7.9	8.4	8.2	8.9	8.6
Netherlands <sup>b</sup>	3.5	5.4	5.3	5.6	5.6	5.4	5.6	5.6
Poland	3.8	3.4	4.2	3.9	4.0	4.2	4.2	4.5
Romania	2.4	2.5	2.7	2.6	2.2	2.2	2.3	2.3
Russian Federation	3.0	3.1	2.1	2.1	2.2	3.2	3.2	3.0
Spain	3.5	3.7	4.0	4.0	3.5	3.2	3.2	3.3
Turkey	1.4	1.4	2.0	2.3	2.2	2.1	2.1	2.1
Ukraine	3.5	2.9	2.8	2.5	2.5	2.2	2.3	2.4
United Kingdom	7.0	6.6	6.6	6.6	6.6	5.8	5.8	5.7
United States	39.8	40.7	42.3	41.5	41.3	45.0	45.6	45.1
Other	14.3	19.2	18.5	17.8	20.1	20.3	20.6	18.3
Total	184.0	196.7	204.0	207.0	200.0	211.0	214.0	214.0

<sup>a</sup> Marketable salt. <sup>b</sup> Includes the Antilles.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; British Geological Survey, *World Mineral Statistics*, Nottingham, England; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries*, Washington DC; ABARE.

## Silica

### 326 Summary of Australian statistics for silica

	Production	Exports <sup>a</sup>		Imports	
	Volume kt	Volume kt	Value \$'000	Volume t	Value \$'000
1960	213	na	na	96	20
1961	218	na	na	49	6
1962	234	na	na	24	10
1963	247	na	na	46	38
1964	330	na	na	97	25
1965	337	na	na	44	55
1966	354	na	na	533	33
1967	446	na	na	478	na
1968	550	na	na	438	31
1969	652	na	na	624	37
1970	879	178 b	575 b	785 b	53 b
1971	1 112	211 b	736 b	1 126 b	85 b
1972	1 058	219 b	658 b	1 000 b	86 b
1973	1 259	557 b	1 836 b	696	259
1974	1 443 c	555 b	1 838 b	846	74
1975	1 219	513 b	2 193 b	1 121	119
1976	1 381	389 b	1 867 b	343	52
1977	1 224	495 b	3 030 b	441	77
1978	1 290	467 b	3 112 b	283	45
1979	1 768	647	4 896	368	77
1980	1 828	649	5 762	199	49
1981	1 743	383	4 075	569	169
1982	1 813	519	5 399	3 678	589
1983	1 928	670	6 879	2 464	647
1984	2 242	686	7 430	3 087	550
1985	2 091	895	9 972	1 267	648
1986	2 091	1 137	13 590	852	567
1987	2 361	1 094	13 249	535	397
1988	2 667	1 577	20 973	3 633	609
1988-89	2 795 d	1 660	23 319	3 473	523
1989-90	3 116 d	2 226	34 848	2 029	282
1990-91	3 835 d	2 398	37 685	6 835	667
1991-92	3 347 e	2 547	40 175	9 025	1 205
1992-93	3 570 e	2 488	41 825	2 231	906
1993-94	na	2 600	43 083	1 130	631
1994-95	4 576	3 007	49 163	2 431	989
1995-96	na	3 227	49 538	1 731	1 153
1996-97	na	3 074	52 062	4 237	2 681
1997-98	na	1 447	27 460	811	483
1998-99	na	2 986	58 401	2 704	975
1999-00	4 266	3 232	64 567	2 427	1 159
2000-01	na	3 213	75 376	2 658	1 455
2001-02	na	2 629	57 598	4 084	1 933

<sup>a</sup> Includes quartz sand from July 1999, data not available separately. <sup>b</sup> Year ended 30 June. <sup>c</sup> Excludes Western Australia. <sup>d</sup> Excludes Victoria. <sup>e</sup> Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.



# 327 Australian production of silica, by state

	New South Wales kt	Victoria kt	Queensland kt	Western Australia kt	South Australia kt	Tasmania kt	Australia kt
1960	168.1	na	16.1	8.8	14.8	5.3	213.2
1961	153.3	na	29.7	8.3	23.1	1.4	218.0
1962	173.4	na	26.0	10.5	23.8	0.5	234.2
1963	176.7	na	32.5	10.1	25.3	2.7	247.3
1964	241.9	na	38.2	10.2	25.4	13.8	329.6
1965	234.9	na	46.2	9.4	36.4	10.1	337.0
1966	234.1	na	39.4	28.7	46.2	5.5	353.9
1967	289.1	na	70.2	42.4	35.1	8.7	445.6
1968	283.6	na	164.5	20.9	67.1	14.3	550.4
1969	315.4	na	208.9	49.7	49.4	28.3	651.7
1970	335.2	114.5	295.0	39.3	43.2	51.8	879.1
1971	430.2	108.1	405.7	57.8	74.0	36.7	1 112.4
1972	464.2	98.8	395.4	20.9	60.5	18.1	1 058.0
1973	459.7	109.0	568.1	27.4	66.2	28.1	1 258.5
1974	474.9	141.8	712.4	na	75.2	38.4	1 442.8 <sup>a</sup>
1975	392.9	142.6	544.1	28.3	77.6	33.3	1 218.8
1976	511.7	166.3	516.5	40.6	118.7	27.7	1 381.4
1977	410.3	199.4	458.7	78.1	104.4	51.5	1 224.3
1978	417.3	184.3	520.2	91.2	114.8	53.1	1 289.7
1979	544.9	196.2	627.3	217.7	91.7	89.9	1 767.6
1980	588.1	255.3	670.7	148.1	99.9	65.5	1 827.6
1981	548.5	288.2	581.4	168.1	120.4	36.5	1 743.1
1982	557.5	361.0	563.7	144.0	146.8	40.1	1 813.2
1983	471.5	348.5	627.4	322.8	114.5	43.3	1 927.8
1984	448.4	406.9	866.7	352.6	124.4	43.1	2 242.1
1985	338.5	273.7	924.6	373.1	143.4	37.1	2 090.5
1986	412.3	267.0	839.4	390.4	141.3	40.9	2 091.3
1987	464.8	224.0	1 079.2	386.0	147.2	59.5	2 360.7
1988	457.6	218.7	1 467.0	348.9	96.8	78.0	2 667.0
1988-89	480.2	na	1 682.6	364.5	109.7	158.0	2 794.9 <sup>b</sup>
1989-90	574.0	na	1 802.0	478.0	112.0	150.0	3 116.0 <sup>b</sup>
1990-91	551.1	na	2 145.1	861.7	104.4	172.3	3 834.6 <sup>b</sup>
1991-92	552.5	na	2 019.8	654.6	119.8	na	3 346.7 <sup>c</sup>
1992-93	495.0	na	2 421.0	518.0	136.0	na	3 570.0 <sup>c</sup>
1993-94	na	na	2 494.2	568.4	na	na	na
1994-95	565.0	220.0	2 828.7	614.5	174.0	174.0	4 576.0
1995-96	636.2	na	na	741.9	132.0	na	na
1996-97	699.1	na	2 680.5	700.2	157.0	na	na
1997-98	489.4	na	2 851.1	821.5	131.0	na	na
1998-99	438.4	na	2 087.2	583.0	126.1	na	na
1999-00	442.2	443.0	2 637.0	599.6	114.8	139.9	4 265.8
2000-01	433.5	78.0	2 619.0	557.3	145.3	163.4	3 996.5

<sup>a</sup> Excludes Western Australia. <sup>b</sup> Excludes Victoria. <sup>c</sup> Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

## Silica

### 328 Australian imports of silica based products

	Silicon		Ferrosilicon		Ferrosilicomanganese		Piezoelectric crystals
	Volume t	Value \$'000	Volume t	Value \$'000	Volume t	Value \$'000	Value \$'000
1960	na	188	3 968	na	na	na	na
1961	na	210	8 308	1 217	na	na	na
1962	797	168	6 307	1 004	na	na	na
1963	830	249	5 720	710	na	na	na
1964	1 593	466	10 348	1 167	na	na	na
1965	638	194	13 211	1 747	na	na	na
1966	na	142	7 620	1 061	na	na	na
1967	na	422	9 440	1 379	na	na	na
1968	na	na	6 327	923	na	na	na
1969	na	625	7 722	1 180	na	na	na
1970	na	621	13 603	2 272	na	na	na
1971	3 403	1 192	12 281	2 073	na	na	112
1972	1 950	688	9 771	1 794	na	na	259
1973	2 366	777	9 202	1 526	na	na	159
1974	2 496	1 047	14 286	3 048	na	na	330
1975	2 602	2 723	21 578	8 528	na	na	558
1976	1 845	1 229	14 258	5 249	na	na	467
1977	3 896 a	2 982 a	6 437	3 114	390 a	200 a	738 a
1978	2 006 a	1 492 a	6 363	2 893	414	271	536 a
1979	2 573 a	2 950 a	7 149	3 640	488	392	819 a
1980	4 888 a	5 749 a	14 598	8 856	532	376	971 a
1981	3 093 a	3 553 a	9 716	4 675	217	180	1 040 a
1982	2 961	3 685	10 761	6 222	193	127	1 886
1983	2 695	4 064	7 174	4 280	336	300	1 859
1984	4 572	7 422	9 461	5 273	774	709	2 402
1985	4 914	9 447	13 890	7 153	940	1 183	3 782
1986	5 852	10 461	11 469	6 873	392	558	3 407
1987	5 083	11 853	12 897	8 894	656	913	4 106
1988	3 759	6 592	9 095	7 533	433	571	3 444
1988-89	3 714	8 062	14 100	12 065	293	401	4 347
1989-90	2 908	10 160	21 507	18 566	205	308	4 470
1990-91	2 443	10 545	19 330	13 929	231	316	3 475
1991-92	2 301	11 469	13 229	11 460	913	922	8 486
1992-93	3 611	11 910	24 738	21 091	932	832	4 423
1993-94	3 025	11 393	35 732	31 342	510	548	6 114
1994-95	2 863	15 083	32 593	25 699	377	375	6 607
1995-96	4 899	14 862	34 506	38 060	288	482	7 951
1996-97	3 226	10 408	52 952	38 258	279	468	6 305
1997-98	1 391	4 607	18 597	19 732	80	128	3 077
1998-99	4 110	15 289	32 044	33 968	451	752	9 431
1999-00	4 887	14 683	29 189	27 749	329	474	12 066
2000-01	5 966	23 530	29 004	33 006	468	723	20 325
2001-02	3 857	13 719	28 965	34 115	259	439	8 509

a Year ended 30 June. na Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*; AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra.

# 329 Summary of Australian statistics for silver

	Production		Exports <sup>a</sup>		Price <sup>b</sup> \$/kg
	Mine t	Refinery t	Volume t	Value \$m	
1970	808	374	304	na	59.39
1971	678	328	203	na	47.92
1972	681	313	219	na	49.75
1973	707	261	115	na	60.08
1974	670	256	112	na	104.75
1975	726	283	134	na	109.17
1976	779	255	100	na	115.17
1977	856	280	136	na	135.00
1978	813	299	76	na	153.00
1979	832	320	85	na	319.25
1980	777	355	85	na	598.00
1981	744	376	90	na	297.17
1982	907	357	234	na	253.67
1983	1 033	329	222	na	411.33
1984	972	302	164	na	299.75
1985	1 086	329	167	na	285.33
1986	1 023	336	192	na	264.58
1987	1 119	362	178	na	325.83
1988	1 134	359	26 <sup>c</sup>	26 <sup>d</sup>	275.75
1989	1 075	376	23 <sup>c</sup>	28 <sup>d</sup>	229.67
1990	1 173 <sup>s</sup>	419	16 <sup>c</sup>	43 <sup>d</sup>	205.92
1991	1 180 <sup>s</sup>	387	106 <sup>c</sup>	38 <sup>d</sup>	175.58
1992	1 218 <sup>s</sup>	369	200 <sup>c</sup>	49 <sup>d</sup>	181.25
1993	1 152 <sup>s</sup>	357	257 <sup>c</sup>	60 <sup>d</sup>	212.25
1994	1 045 <sup>s</sup>	363	190 <sup>c</sup>	53 <sup>d</sup>	240.92
1995	939 <sup>s</sup>	346	192 <sup>c</sup>	52 <sup>d</sup>	234.06
1996	974 <sup>s</sup>	220	316 <sup>c</sup>	73 <sup>d</sup>	222.42
1997	1 107 <sup>s</sup>	174	215 <sup>c</sup>	54 <sup>d</sup>	220.70
1998	1 473 <sup>s</sup>	292	365 <sup>c</sup>	123 <sup>d</sup>	291.56
1999	1 715 <sup>s</sup>	437	428 <sup>c</sup>	117 <sup>d</sup>	268.62
2000	2 059	404	427	138	285.31
2001	1 970	555	524	159	287.72

<sup>a</sup> Refined silver only. <sup>b</sup> Pasminco Metals, fob/fot Port Pirie. <sup>c</sup> Refined bullion only. <sup>d</sup> Includes refined bullion, powder, unwrought silver and semi-manufactured forms. <sup>s</sup> ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## Silver

### 330 Australian supply and disposal of silver

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Production</b>									
<b>Mine</b>									
New South Wales	t	229	232	211	200	151	147	146	133
Queensland	t	na	419	442	574	985	1 187	1 576	1 545
Western Australia	t	na	76	81	83	99	133	137	107
South Australia	t	na	14	14	15	15	25	34	34
Tasmania	t	na	174	179	168	147	171	118	104
Northern Territory	t	na	24	47	68	76	54	47	48
Total s	t	1 045	939	974	1 107	1 473	1 715	2 059	1 970
<b>Refinery</b>	t	363	346	220	174	292	437	404	555
<b>Exports</b>									
<b>Refined silver</b>									
India	t	0	0	5	29	54	140	131	190
Japan	t	48	104	141	102	131	162	185	178
United Kingdom	t	48	6	10	0	67	10	0	0
Other	t	95	82	160	84	114	116	111	155
Total	t a	190	192	316	215	365	428	427	524
	\$m b	53	52	73	54	123	117	138	159
Silver content of lead bullion	t	na	411	463	494	405	419	306	na
<b>Prices</b>									
World c	US\$/troy oz	528.00	518.88	518.67	487.96	553.74	524.97	499.91	434.98
Australia d	A\$/kg	240.92	234.06	222.42	220.70	291.56	268.62	285.31	287.72

a Refined bullion only. b Includes refined bullion, powder, unwrought silver and semimanufactured forms. c Handy and Harman price. d Pasmenco Metals, fob/fot Port Pirie. s ABARE estimate. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

# 331 World mine production of silver

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	t	t	t	t	t	t	t	t	t
Australia s	1 152	1 045	939	974	1 107	1 473	1 715	2 059	1 970
Bolivia	333	352	425	385	386	404	424	434	410
Brazil	160	150	145	140	135	130	130	130	130
Canada	896	768	1 285	1 309	1 224	1 196	1 246	1 204	1 276
Chile	985	959	1 036	1 130	1 088	1 337	1 380	1 245	1 357
China	841	812	1 000	1 100	1 265	1 260	1 330	1 330	1 330
Indonesia	90	107	251	255	279	349	292	335	197
Japan	137	134	100	85	87	95	94	104	81
Kazakhstan	450	408	371	414	389	536	816	816	816
Korea, Dem. Rep. of	250	200	200	200	200	200	200	200	200
Mexico	2 136	2 215	2 334	2 528	2 679	2 688	2 483	2 483	2 628
Morocco	307	328	204	200	262	307	270	290	240
Peru	1 621	1 667	1 881	1 912	2 059	2 004	2 231	2 438	2 670
Poland	767	1 064	1 001	935	1 038	1 097	1 093	1 088	1 088
Russian Federation	300	250	250	250	250	240	240	240	240
South Africa	193	196	174	168	153	145	152	144	112
Spain	180	136	102	103	66	66	66	66	66
Sweden	299	275	245	256	283	280	284	304	277
United States	1 640	1 480	1 565	1 570	2 182	2 060	1 952	2 017	1 606
Uzbekistan	150	150	150	150	150	150	150	150	150
Other	722	733	721	737	677	663	658	665	783
Total	13 608	13 428	14 379	14 802 a	15 959 a	16 677 a	17 208 a	17 743 a	17 629 a

a Excludes countries for which data are not available. s ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Talc

### 332 Summary of Australian statistics for talc

	Production <sup>b</sup> t	Exports <sup>a</sup>			Imports <sup>a</sup>	
		Volume t	Value \$'000	Unit value \$/t	Volume t	Value \$'000
1960	15 794	3 968	129	32.56	504	24
1961	13 664	4 258	149	35.05	1 489	45
1962	13 754	5 068	164	32.34	2 156	72
1963	12 790	4 090	142	34.63	2 591	81
1964	15 439	5 264	177	33.69	2 351	75
1965	19 695	6 887	234	33.98	2 404	68
1966	21 616	7 758	231	29.78	2 903	62
1967	20 431	8 787	277	31.52	2 199	74
1968	37 860	24 875	661	26.57	3 590	117
1969	52 259	34 134	863	25.28	1 823	77
1970	47 517	31 037	791	25.49	3 441	164
1971	41 280	32 662	861	26.36	4 091	197
1972	43 849	32 051	897	27.99	1 186	69
1973	50 850	36 179	996	27.53	1 109	66
1974	63 992	51 325	1 428	27.82	1 606	10
1975	67 242	45 457	1 527	33.59	947	72
1976	77 447	62 306	2 425	38.92	370	62
1977	112 920	87 271	4 052	46.43	335	65
1978	137 553	107 177	5 338	49.81	527	103
1979	138 266	107 849	6 330	58.69	420	86
1980	159 962	83 059	5 286	63.64	382	82
1981	74 840	82 641	5 529	66.90	329	105
1982	143 325	80 512	5 428	67.42	93	30
1983	167 009	131 914	8 401	63.69	147	68
1984	179 709	163 370	10 810	66.17	215	111
1985	132 074	122 306	9 577	78.30	352	196
1986	179 467	183 357	15 028	81.96	151	85
1987	206 865	129 656	11 012	84.93	266	189
1988	201 740	168 758	13 073	77.47	509	223
1988-89	208 998	126 597	9 447	74.62	578	216
1989-90	234 579	200 870	18 158	90.39	631	297
1990-91	173 803	137 260	12 770	93.03	528	237
1991-92	179 678	152 009	13 717	90.24	563	298
1992-93	172 273	119 830	14 184	118.36	629	372
1993-94	154 073	152 297	15 440	101.38	534	328
1994-95	125 701	133 060	12 672	95.23	1 053	353
1995-96	176 163	182 600	17 388	95.22	1 066	423
1996-97	185 601	143 227 c	12 861 c	89.80	1 262	451
1997-98	199 315	714 c	251 c	351.70	384	201
1998-99	190 037	3 333 c	1 053 c	315.82	886	695
1999-00	178 545	184 559	20 391	110.48	1 115	893
2000-01	173 446	135 771	24 298	178.96	1 234	707
2001-02	na	144 216	21 768	150.94	1 058	630

<sup>a</sup> Includes pyrophyllite. <sup>b</sup> Excludes pyrophyllite. <sup>c</sup> Excludes uncrushed product from 1 June 1997 to 31 May 1999. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

# 333 Australian production of talc and pyrophyllite, by state

	Talc				Pyrophyllite
	New South Wales t	South Australia t	Western Australia t	Australia t	New South Wales t
1960	1 154	9 082	5 558	15 794	509
1961	838	7 594	5 232	13 664	1 309
1962	732	7 962	5 061	13 754	1 303
1963	878	7 168	4 744	12 790	1 176
1964	1 388	8 533	5 518	15 439	723
1965	1 710	10 783	7 202	19 695	0
1966	1 426	6 611	13 580	21 616	266
1967	2 169	7 303	10 958	20 431	564
1968	2 153	10 586	25 121	37 860	985
1969	2 925	12 459	36 876	52 259	3 165
1970	1 162	14 559	31 796	47 517	7 707
1971	698	11 506	29 076	41 280	6 596
1972	650	11 336	31 863	43 849	12 299
1973	765	14 088	35 997	50 850	12 820
1974	430	12 773	50 789	63 992	15 845
1975	280	12 975	53 987	67 242	15 145
1976	305	16 892	60 250	77 447	14 650
1977	90	16 391	96 439	112 920	16 039
1978	105	14 070	123 378	137 553	9 401
1979	150	15 565	122 551	138 266	19 209
1980	77	16 414	143 471	159 962	11 002
1981	76	21 046	53 718	74 840	8 146
1982	0	20 497	122 828	143 325	9 467
1983	63	14 913	152 033	167 009	9 569
1984	145	18 588	160 976	179 709	7 051
1985	239	16 804	115 031	132 074	7 317
1986	38	18 061	161 368	179 467	8 588
1987	120	17 471	189 274	206 865	6 036
1988	126	18 840	182 774	201 740	3 932
1988-89	155	13 536	195 307	208 998	3 436
1989-90	88	14 228	220 263	234 579	2 965
1990-91	136	12 107	161 560	173 803	1 032
1991-92	0	10 787	168 891	179 678	1 260
1992-93	0	13 484	158 789	172 273	1 175
1993-94	na	13 016	141 057	154 073	na
1994-95	27	12 950	112 724	125 701	777
1995-96	0	14 751	161 412	176 163	595
1996-97	0	8 061	177 540	185 601	337
1997-98	0	8 018	191 297	199 315	702
1998-99	0	8 428	181 609	190 037	347
1999-00	0	9 410	169 135	178 545	1 727
2000-01	0	9 126	164 320	173 446	na

na Not available.

Sources: ABS, *Mineral Production, Australia*, cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry*, cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842-1964*, Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

## Talc

### 334 Australian exports of talc, by destination <sup>a</sup>

	Belgium t	Japan t	Nether- lands t	New Zealand t	Korea, Rep. of t	United States t	Other t	Total	
								Volume t	Value \$'000
1960	na	na	na	1 161	na	na	na	3 968	129
1961	na	na	na	957	na	na	na	4 258	149
1962	na	na	412	1 116	na	na	na	5 068	164
1963	na	na	0	1 259	na	na	na	4 090	142
1964	na	na	217	1 049	na	na	na	5 264	177
1965	na	na	1 852	1 421	na	na	na	6 887	234
1966	na	na	4 864	1 198	na	na	na	7 758	231
1967	na	78	6 971	1 235	na	na	503	8 787	277
1968	na	190	19 026	1 285	na	na	4 374	24 875	661
1969	na	9 976	22 236	1 474	na	na	448	34 134	863
1970	na	16 445	12 786	1 567	na	na	239	31 037	791
1971	na	20 754	10 048	1 740	na	na	120	32 662	861
1972	na	14 953	14 991	2 029	na	na	78	32 051	897
1973	na	20 061	14 346	1 661	na	na	111	36 179	996
1974	na	30 889	18 703	1 644	na	na	89	51 325	1 428
1975	na	28 329	12 163	2 060	na	na	2 905	45 457	1 527
1976	na	39 050	15 107	2 802	na	na	5 347	62 306	2 425
1977	na	66 557	13 422	2 461	na	na	4 831	87 271	4 052
1978	na	90 577	11 291	1 860	na	na	3 449	107 177	5 338
1979	na	85 511	12 868	3 099	na	na	6 371	107 849	6 330
1980	3 150	64 152	13 500	1 868	na	na	389	83 059	5 286
1981	6 096	60 406	6 215	2 917	na	na	7 007	82 641	5 529
1982	12 597	51 096	10 063	2 419	na	na	4 337	80 512	5 428
1983	5 004	93 988	14 655	1 325	5 023	9 990	1 929	131 914	8 401
1984	11 213	119 678	14 327	1 988	14 167	0	1 997	163 370	10 810
1985	20 051	66 765	14 980	1 848	15 420	0	3 242	122 306	9 577
1986	15 007	120 312	15 252	1 069	15 745	14 003	1 969	183 357	15 028
1987	8 084	84 701	5 001	1 079	9 311	15 472	6 008	129 656	11 012
1988	12 112	124 843	11 960	669	0	18 030	1 144	168 758	13 073
1988-89	5 000	107 482	5 507	548	0	7 019	1 041	126 597	9 447
1989-90	21 754	137 648	13 565	366	4 648	18 510	4 379	200 870	18 158
1990-91	6 000	87 984	35 167	476	0	6 003	1 630	137 260	12 770
1991-92	5 255	103 279	30 200	421	0	4 728	8 126	152 009	13 717
1992-93	17 002	70 331	14 630	686	0	8 166	9 015	119 830	14 184
1993-94	6 317	94 451	37 356	689	0	10 911	2 573	152 297	15 440
1994-95	6 300	68 657	46 800	679	0	9 300	1 324	133 060	12 672
1995-96	12 803	85 375	48 300	797	680	30 100	4 545	182 600	17 388
1996-97 <sup>b</sup>	6 300	69 029	45 625	669	4 815	5 262	11 527	143 227	12 861
1997-98 <sup>b</sup>	0	0	0	427	3	0	284	714	251
1998-99 <sup>b</sup>	0	1 200	0	944	99	0	1 090	3 333	1 053
1999-00	2 501	65 101	78 939	1 013	43	12 400	24 562	184 559	20 391
2000-01	0	62 567	57 550	1 138	129	0	14 387	135 771	24 298
2001-02	0	55 436	61 767	2 574	178	4 200	20 061	144 216	21 768

<sup>a</sup> Includes pyrophyllite. <sup>b</sup> Excludes uncrushed product from 1 June 1997 to 31 May 1999. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra.



# 335 Australian imports of talc, by source <sup>a</sup>

	Norway t	United Kingdom t	United States t	Other t	Total	
					Volume t	Value \$'000
1960	na	na	na	na	504	24
1961	na	na	na	na	1 489	45
1962	34	na	64	na	2 156	72
1963	41	na	119	na	2 591	81
1964	61	na	135	na	2 351	75
1965	82	na	139	na	2 404	68
1966	19	na	256	na	2 903	62
1967	13	na	381	na	2 199	74
1968	40	na	469	na	3 590	117
1969	9	na	442	na	1 823	77
1970	23	na	560	2 858	3 441	164
1971	31	na	732	3 328	4 091	197
1972	65	na	765	356	1 186	69
1973	86	na	647	376	1 109	66
1974	97	na	355	1 154	1 606	10
1975	2	na	244	701	947	72
1976	62	na	188	120	370	62
1977	26	na	186	123	335	65
1978	51	na	236	240	527	103
1979	41	na	168	211	420	86
1980	23	na	187	172	382	82
1981	60	na	228	41	329	105
1982	22	na	49	22	93	30
1983	27	29	82	9	147	68
1984	39	61	111	4	215	111
1985	46	47	248	11	352	196
1986	43	61	36	11	151	85
1987	66	47	107	46	266	189
1988	31	17	431	30	509	223
1988-89	45	34	338	161	578	216
1989-90	25	23	571	13	631	297
1990-91	58	75	368	28	528	237
1991-92	17	65	451	29	563	298
1992-93	30	99	354	146	629	372
1993-94	35	50	297	152	534	328
1994-95	20	46	287	700	1 053	353
1995-96	4	24	305	733	1 066	423
1996-97	11	44	185	1 022	1 262	451
1997-98	8	20	119	237	384	201
1998-99	6	24	224	632	886	695
1999-00	8	5	280	822	1 115	893
2000-01	39	0	250	945	1 234	707
2001-02	59	0	168	830	1 058	630

<sup>a</sup> Includes pyrophyllite. **na** Not available.

Sources: ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## Talc

### 336 World mine production of talc, by country <sup>a</sup>

	Australia kt	Brazil kt	China <sup>b</sup> kt	Japan kt	Korea, Rep. of kt	United States kt	Other kt	Total kt
1960	16	na	150	592	na	666	833	2 520
1961	15	na	150	635	na	692	914	2 708
1962	15	na	150	589	na	700	931	2 712
1963	14	na	150	654	na	730	993	2 857
1964	16	na	150	1 055	na	807	1 032	3 485
1965	20	na	150	1 008	na	783	1 038	3 444
1966	22	na	150	1 109	na	812	1 003	3 526
1967	21	na	150	1 370	na	819	1 003	3 831
1968	39	na	150	1 689	na	869	1 058	4 298
1969	55	112	150	1 705	180	934	1 280	4 490
1970	55	130	150	1 676	204	932	1 413	4 940
1971	48	130	150	1 895	212	932	1 203	4 950
1972	56	130	150	1 507	236	1 005	1 290	4 764
1973	64	90	150	1 564	417	1 131	1 457	5 272
1974	80	201	150	1 542	443	1 170	1 276	5 272
1975	82	221	270	1 192	416	841	1 430	4 872
1976	92	247	300	1 345	496	963	1 532	5 415
1977	129	254	150	1 359	605	1 093	1 601	5 641
1978	147	240	150	1 272	665	1 202	1 577	5 723
1979	157	366	150	1 709	778	1 318	1 889	6 847
1980	171	413	916	1 749	719	1 125	1 946	7 529
1981	83	503	898	1 545	565	1 218	1 912	7 224
1982	153	384	898	1 492	591	1 030	1 780	6 838
1983	177	396	950	1 466	632	967	1 982	7 070
1984	187	413	952	1 498	848	1 023	2 177	7 615
1985	139	425	1 000	1 434	932	1 151	2 257	7 855
1986	188	425	1 000	1 334	900	1 181	2 190	7 735
1987	213	600	na	1 260	900	1 120	3 763	7 856
1988	206	400	na	1 266	850	1 249	3 678	7 649
1989	212	620	1 000	1 286	800	1 253	2 279	7 980
1990	238	720	1 000	1 293	910	1 267	2 823	8 251
1991	175	570	2 300	1 295	840	1 037	2 715	8 932
1992	181	480	2 650	1 123	760	997	2 673	8 864
1993	173	440	2 700	1 090	750	968	2 579	8 700
1994	na	440	2 400	999	710	935	2 396	7 880
1995	126	460	2 400	994	730	1 060	1 380	7 150
1996	177	510	2 400	965	820	994	2 324	8 190
1997	186	625	2 350	1 010	810	1 050	2 439	8 470
1998	200	452	2 300	965	822	971	2 340	8 050
1999	190	452	3 900	800	875	925	2 526	9 470
2000	180	452	3 500	743	776	851	2 294	9 640
2001	173	450	3 500	740	770	914	2 943	9 490

<sup>a</sup> Includes pyrophyllite. <sup>b</sup> Excludes Hong Kong. na Not available.

Sources: BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries*, Washington DC; ABARE.

# 337 Summary of Australian statistics for tin

	Production		Exports		Price c A\$/t
	Mine a t	Refinery t	Volume b t	Value \$m	
1960	2 202	2 254	0	0	2 196.0
1961	2 745	2 546	0	0	2 450.0
1962	2 715	2 704	0	0	2 470.0
1963	2 860	2 626	97	0	2 506.0
1964	3 642	3 021	253	1	3 416.0
1965	3 849	3 179	633	2	3 892.0
1966	4 807	3 640	1 327	4	3 570.0
1967	5 586	3 594	1 690	5	3 339.0
1968	6 537	3 692	3 238	8	3 125.0
1969	8 177	4 156	4 075	10	3 427.0
1970	8 828	5 211	4 681	14	3 669.0
1971	10 035	6 333	5 249	14	3 497.0
1972	11 997	7 027	8 129	23	3 761.0
1973	10 801	6 904	7 414	21	4 802.0
1974	10 481	6 714	6 755	30	8 167.0
1975	9 577	5 254	6 977	32	6 841.0
1976	10 611	5 603	5 670	30	7 650.0
1977	10 634	5 561	7 405	60	10 788.0
1978	11 864	5 129	9 071	89	12 867.0
1979	12 571	5 423	8 450	103	15 419.0
1980	11 588	4 819	8 919	118	16 795.0
1981	12 233	4 286	8 622	98	14 244.0
1982	12 093	3 105	7 779	92	12 764.0
1983	9 252 d	2 913	6 692	120	12 995.0
1984	7 923 d	2 899	6 577	83	12 217.0
1985	6 363 d	2 683	5 667	85	12 161.0
1986	8 508 d	1 399	7 512	58	11 581.0
1987	7 691	563	7 163	60	12 004.0
1988	7 009	439	7 376	60	11 299.0
1989	7 709	424	7 511	85	13 352.0
1990	7 425	312	6 187	55	9 913.0
1991	5 380	268	5 770	35	9 054.0
1992	6 609	240	6 569	45	4 663.2
1993	8 057	222	8 161	53	7 589.8
1994	7 400	320	7 234	44	7 502.4
1995	8 656	570	8 574	59	8 432.0
1996	8 733	481	8 779	56	7 892.3
1997	10 326	646	10 160	63	7 611.5
1998	10 306	684	10 066	73	8 831.9
1999	10 040	586	10 556	70	8 373.8
2000	9 070	733	9 057	67	9 335.9
2001	9 983	1 022	9 325	66	8 646.7

a Metallic content. b Tin content of all ores, concentrates, slags, residues and refined tin. c London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in Australian dollars; between 1 January 1986 and 31 May 1989, Kuala Lumpur Tin Market. d Excludes content of copper–tin concentrate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## Tin

### 338 Australian supply and disposal of tin

	Unit	1994	1995	1996	1997	1998	1999	2000	2001
<b>Production</b>									
<b>Mine <sup>a</sup></b>									
New South Wales	t	64	34	30	30	30	0	0	0
Queensland	t	na	21	79	70	40	40	40	0
Tasmania	t	na	8 046	8 337	9 602	9 566	9 414	8 329	8 961
Western Australia	t	na	555	378	466	568	557	777	1 022
Total	t	7 400	8 656	8 733	10 326	10 306	10 040	9 070	9 983
<b>Refinery</b>	t	320	570	481	646	684	586	733	1 022
<b>Exports</b>									
<b>Tin ore and concentrate</b>									
Malaysia	t	6 697	11 098	11 109	11 115	11 542	9 548	8 067	5 728
Thailand	t	6 490	4 767	4 616	5 951	3 834	6 626	6 076	9 426
Other	t	40	12	0	0	0	0	0	0
Total	t	13 227	15 877	15 725	17 066	15 376	16 174	14 143	15 154
	\$m	42.81	54.27	52.32	59.94	73.03	69.55	67.43	66.08
<b>Refined</b>									
Malaysia	t	74	16	133	35	0	20	50	1
Thailand	t	21	484	0	0	0	109	27	0
United States	t	119	20	281	500	480	199	1	0
Other	t	17	36	85	3	62	165	217	96
Total	t	231	556	498	537	542	493	295	97
	\$m	1.56	4.35	3.73	3.63	4.36	3.01	0.97	0.53
Tin content of primary materials exported <sup>b</sup>	t	7 234	8 574	8 779	10 160	10 066	10 556	9 057	9 325
<b>Prices <sup>c</sup></b>									
World	US\$/t	5 464.7	6 220.4	6 152.5	5 644.3	5 542.4	5 399.9	5 434.8	4 483.6
Australia	A\$/t	7 502.4	8 432.0	7 892.3	7 611.5	8 831.9	8 373.8	9 335.9	8 646.7

<sup>a</sup> Metallic content. <sup>b</sup> Tin content of all ores, concentrates, slags, residues and refined tin. <sup>c</sup> London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in US and Australian dollars. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

# 339 World mine production of tin in concentrates, by country <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
Australia	7.4	8.7	8.7	10.3	10.3	10.0	9.1	10.0
Bolivia	16.3	14.4	14.8	12.9	10.5	12.4	12.5	12.5
Brazil	19.7	19.4	20.3	19.1	14.2	13.2	14.2	13.8
China	54.1	61.8	69.6	67.5	70.1	80.1	97.1	78.8
Congo, Dem. Rep. Of	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	38.5	46.1	51.0	55.2	55.9	47.8	51.6	56.3
Kazakhstan	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Laos	1.3	1.2	1.5	1.0	0.6	0.4	0.4	0.8
Malaysia	6.5	6.4	5.2	5.1	5.8	7.3	6.3	4.7
Myanmar	0.4	0.7	0.4	0.1	0.1	0.2	1.6	1.9
Nigeria	0.2	0.3	2.5	2.8	1.9	1.5	2.0	1.3
Peru	20.0	22.3	27.0	28.0	25.7	30.6	37.4	38.2
Portugal	4.3	4.6	4.8	3.5	3.1	2.2	1.2	1.2
Rwanda	0.2	0.2	0.2	0.2	0.4	0.4	0.4	0.4
Russian Federation	10.5	9.0	9.0	7.5	7.0	5.2	6.6	5.5
South Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Thailand	3.1	1.8	1.3	0.7	1.7	2.7	2.2	2.5
United Kingdom	1.9	2.0	2.1	2.3	0.4	0.0	0.0	0.0
Viet Nam	4.0	4.0	4.5	4.8	4.5	4.5	4.5	4.5
Zimbabwe	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other <sup>s</sup>	0.7	0.0	7.6	0.0	11.3	8.9	0.1	9.5
Total <sup>s</sup>	189.7	201.5	223.6	221.3	213.4	219.1	247.7	232.4

<sup>a</sup> Recoverable tin content of ores and concentrates produced. <sup>s</sup> ABARE estimate; excludes some small producer countries.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; World Bureau of Metal Statistics, *World Metal Statistics*, London.

## Titanium

### 340 Summary of Australian statistics for titanium

	Ilmenite concentrate				Rutile concentrate			
	Production <sup>a</sup>	Exports			Production <sup>a</sup>	Exports		
	Volume kt	Volume kt	Value \$m	Unit value \$/t	Volume kt	Volume kt	Value \$m	Unit value \$/t
1960	108	77	1	7.8	90	95	8.1	85.3
1961	169 <sup>b</sup>	146	1	8.9	103	101	6.4	63.4
1962	182 <sup>b</sup>	158	1	8.9	121	119	7.3	61.3
1963	205 <sup>b</sup>	155	2	9.7	185	157	10.6	67.5
1964	309 <sup>b</sup>	250	2	9.2	185	197	14.1	71.6
1965	448 <sup>b</sup>	367	4	9.5	221	243	17.1	70.4
1966	522	362	4	10.2	251	235	17.8	75.7
1967	554	391	4	10.0	270	263	19.7	74.9
1968	562	402	4	10.2	293	290	21.9	75.5
1969	721	576	6	10.4	326	304	25.5	83.9
1970	886	648	7	10.2	371	374	34.8	93.0
1971	814	657	7	10.2	375	325	35.8	110.2
1972	707	410	4	10.7	313	354	41.1	116.1
1973	720	650	7	11.1	335	336	40.5	120.5
1974	817	739	9	11.9	319	345	48.2	139.7
1975	991	534	7	12.7	348	319	60.0	188.1
1976	959	951	14	14.2	390	347	72.5	208.9
1977	1 033	1 083	18	16.2	325	247	53.5	216.6
1978	1 255	994	16	16.2	257	371	69.2	186.5
1979	1 181	907	15	16.8	275	318	69.3	217.9
1980	1 385	1 059	20	19.0	312	315	88.8	281.9
1981	1 321	908	21	23.6	231	216	64.1	296.8
1982	1 149	879	22	25.4	221	199	50.9	255.8
1983	893	817	23	28.2	163	218	54.0	247.7
1984	1 493	1 173	34	28.9	170	192	58.0	302.1
1985	1 419	1 152	40	34.5	212	212	83.5	393.9
1986	1 238	1 034	49	46.9	216	230	116.4	506.1
1987	1 349	1 046	61	58.3	249	257	149.9	583.7
1988	1 610	1 046	68	65.3	231	238	137.5	576.9
1989	1 690	1 001	73	72.5	243	252	165.0	655.0
1990	1 616	1 041	83	79.5	244	186	143.9	775.3
1991	1 466	977	82	84.0	192	175	124.1	708.8
1992	1 787	945	77	81.1	183	196	111.6	568.5
1993	1 795	962	79	82.6	187	182	98.9	543.3
1994	1 777	1 084	90	82.8	233	209	113.4	541.3
1995	1 980	1 075	98	91.1	204	221	132.1	598.0
1996	2 030	1 062	103	97.4	192	169	128.5	761.3
1997	2 233	1 350	137	101.6	233	208	150.3	724.1
1998	2 413	1 286	141	110.0	238	218	176.1	807.9
1999	1 976	1 051	135	128.4	179	157 <sup>s</sup>	117.7 <sup>s</sup>	747.2 <sup>s</sup>
2000	2 146	1 148	160	139.2	207	189 <sup>s</sup>	146.4 <sup>s</sup>	776.4 <sup>s</sup>
2001	2 027	915	144	157.6	203	188 <sup>s</sup>	165.8 <sup>s</sup>	880.2 <sup>s</sup>

<sup>a</sup> Ex mine. <sup>b</sup> Despatches. <sup>s</sup> ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

# 341 Australian exports of ilmenite, by destination

	Japan kt	Spain kt	United Kingdom kt	United States kt	Other kt	Total	
						Volume kt	Value \$m
1960	23	na	32	18	na	77	0.6
1961	29	na	70	32	na	146	1.3
1962	28	na	77	53	na	158	1.4
1963	23	na	73	37	na	155	1.5
1964	51	na	124	16	na	250	2.3
1965	46	na	205	66	na	367	3.5
1966	45	na	197	49	na	362	3.7
1967	63	na	169	49	na	391	3.9
1968	68	na	157	30	na	402	4.1
1969	121	na	235	37	na	576	6.0
1970	227	na	208	83	na	648	6.6
1971	180	9	294	44	130	657	6.7
1972	68	na	193	2	na	410	4.4
1973	112	na	239	45	na	650	7.2
1974	134	na	199	94	na	739	8.8
1975	110	na	134	62	na	534	6.8
1976	178	24	214	226	309	951	13.5
1977	131	68	232	329	323	1 083	17.5
1978	74	56	227	260	377	994	16.1
1979	51	94	196	150	416	907	15.2
1980	56	35	184	340	444	1 059	20.1
1981	36	88	176	250	358	908	21.4
1982	61	80	162	329	247	879	22.3
1983	65	89	93	284	286	817	23.0
1984	214	106	145	425	283	1 173	33.9
1985	240	96	128	489	199	1 152	39.7
1986	152	79	165	453	185	1 034	48.5
1987	162	105	198	384	197	1 046	61.0
1988	100	105	203	455	183	1 046	68.3
1989	95	97	143	431	236	1 001	72.6
1990	152	50	238	384	217	1 041	82.8
1991	164	75	178	293	266	977	82.0
1992 a	36	27	26	23	832	945	76.6
1993 a	na	na	na	na	na	962	79.4
1994 a	na	na	na	na	na	1 084	89.7
1995 a	na	na	na	na	na	1 075	98.0
1996 a	na	na	na	na	na	1 062	103.4
1997 a	na	na	na	na	na	1 350	137.2
1998 a	na	na	na	na	na	1 286	141.4
1999 a	na	na	na	na	na	1 051	135.0
2000 a	na	na	na	na	na	1 148	159.8
2001 a	na	na	na	na	na	915	144.2

a Confidentiality provisions prevent full reporting after 1991. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## Titanium

### 342 Australian exports of rutile, by destination

	Japan kt	Netherlands kt	United Kingdom kt	United States kt	Other kt	Total	
						Quantity kt	Value \$m
1960	8	10	13	27	37	95	8.1
1961	12	12	15	24	38	101	6.4
1962	8	16	17	32	46	119	7.3
1963	11	10	15	80	41	157	10.6
1964	16	14	16	98	53	197	14.1
1965	21	11	17	138	56	243	17.1
1966	22	9	16	124	64	235	17.8
1967	30	19	16	132	66	263	19.7
1968	31	17	17	149	76	290	21.9
1969	29	22	32	153	68	304	25.5
1970	34	37	38	196	69	374	34.8
1971	30	31	22	184	58	325	35.8
1972	31	30	48	168	77	354	41.1
1973	33	27	65	132	79	336	40.5
1974	24	29	57	157	78	345	48.2
1975	20	19	45	167	68	319	60.0
1976	17	30	60	155	85	347	72.5
1977	17	29	40	101	60	247	53.5
1978	26	28	48	195	74	371	69.2
1979	27	22	81	121	67	318	69.3
1980	35	35	55	130	60	315	88.8
1981	31	13	41	83	48	216	64.1
1982	29	8	59	71	32	199	50.9
1983	27	12	56	85	38	218	54.0
1984	19	27	38	83	25	192	58.0
1985	34	14	48	88	28	212	83.5
1986	26	25	69	79	31	230	116.4
1987	14	46	67	86	44	257	149.9
1988	21	25	45	104	43	238	137.5
1989	28	29	51	111	33	252	165.0
1990	29	20	20	89	28	186	143.9
1991	26	26	26	71	25	175	124.1
1992 a	na	na	na	na	na	196	111.6
1993 a	na	na	na	na	na	182	98.9
1994 a	na	na	na	na	na	209	113.4
1995 a	na	na	na	na	na	221	132.1
1996 a	na	na	na	na	na	169	128.5
1997 a	na	na	na	na	na	208	150.3
1998 a	na	na	na	na	na	218	176.1
1999 a	na	na	na	na	na	157 s	117.7 s
2000 a	na	na	na	na	na	189 s	146.4 s
2001 a	na	na	na	na	na	188 s	165.8 s

a Confidentiality provisions prevent full reporting after 1991. s ABARE estimate. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.



# 343 World ilmenite production, by country

	Australia <sup>a</sup> kt	India kt	Malaysia kt	Norway kt	Ukraine <sup>s</sup> kt	United States kt	Other <sup>s</sup> kt	Total <sup>s</sup> kt
1960	108	250	120 <b>b</b>	246	127	714	1 015	2 580
1961	169	174	109 <b>b</b>	311	135	710	1 217	2 825
1962	182	138	103 <b>b</b>	245 <sup>c</sup>	144	727	923	2 470
1963	205	26	149 <b>b</b>	242	153	806	1 079	2 660
1964	309	11	131 <b>b</b>	272	163	908	1 516	3 310
1965	448	30	124 <b>b</b>	284	174	879	1 591	3 530
1966	522	34	118 <b>b</b>	370	185	876	1 635	3 740
1967	554	42	91 <b>b</b>	427	197	874	1 565	3 750
1968	562	59	126 <b>b</b>	402	210	888	1 723	3 970
1969	721	48	133 <b>b</b>	491	224	845	1 728	4 190
1970	886	79	223 <b>b</b>	579	238	787	2 537	5 340
1971	814	140 <sup>c</sup>	156 <b>b</b>	595	254	618	2 559	5 150
1972	707	165 <sup>c</sup>	153 <b>b</b>	610	270	659	2 195	4 770
1973	720	185 <sup>c</sup>	154 <b>b</b>	750	288	735	2 247	5 090
1974	817	132 <sup>c</sup>	154 <b>b</b>	844	307	685 <sup>c</sup>	2 246	5 200
1975	991	140 <sup>c</sup>	112 <b>b</b>	516 <sup>c</sup>	327	632	1 990	4 725
1976	959	150 <sup>c</sup>	180 <b>b</b>	759	381	590	2 249	5 280
1977	1 033	185 <sup>c</sup>	185 <b>b</b>	823	399	576	1 988	5 200
1978	1 255	185 <sup>c</sup>	187 <b>b</b>	763	408	535	2 141	5 490
1979	1 181	160	187 <b>b</b>	820	408	580	2 162	5 520
1980	1 385	160	189 <b>b</b>	828	417	498	2 439	5 940
1981	1 321	189	173 <b>b</b>	656	426	462	2 954	6 200
1982	1 149	190	77 <b>b</b>	552	431	239	2 642	5 300
1983	893	180	223 <b>b</b>	544	435	235	1 777	4 300
1984	1 493	150	177 <b>b</b>	661	440	240	2 906	6 100
1985	1 419	143	247 <b>b</b>	736	445	240	3 756	7 000
1986	1 238	140	415	804	450	240	3 599	6 900
1987	1 349	140	509	852	454	240	4 496	8 200
1988	1 610	140 <sup>d</sup>	506 <sup>d</sup>	898 <sup>d</sup>	460	240 <sup>d</sup>	4 164	8 030
1989	1 690	160 <sup>d</sup>	520 <sup>d</sup>	930 <sup>d</sup>	460	240 <sup>d</sup>	5 116	9 140
1990	1 616	305 <sup>d</sup>	250 <sup>d</sup>	814 <sup>d</sup>	350	255 <sup>d</sup>	4 109	7 699
1991	1 466	270 <sup>d</sup>	200 <sup>d</sup>	625 <sup>d</sup>	350	220 <sup>d</sup>	3 673	6 804
1992	1 787	215 <sup>d</sup>	338 <sup>d</sup>	708 <sup>d</sup>	200	240 <sup>d</sup>	4 320	7 810
1993	1 795	260	279	713	180	240	4 004	7 468
1994	1 777	290	155	826	150	315	4 146	7 659
1995	1 980	290	179	833	180	330	4 201	7 993
1996	2 030	330	101	747	270	300	4 828	8 606
1997	2 233	305	167	558	380	315	4 814	8 772
1998	2 413	368	67	590	382	407	5 215	9 442
1999	1 976	395	100	590	405	453	5 088	9 007
2000	2 146	425	110	750	425	458	5 111	9 400
2001	2 027	470	170	750	319	436	5 039	9 211

<sup>a</sup> Includes leucoxene. <sup>b</sup> Exports to 1985. <sup>c</sup> Bureau of Mineral Resources estimate. <sup>d</sup> DEMA Pty Ltd estimates. <sup>s</sup> ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics*, Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; Metal Bulletin, *Prices and Data*, Surrey, England; Mining Journal, *Mining Annual Review*, London; TZ Minerals International, *Mineral Sands Annual Review*, Surrey, England; TZ Minerals International, *Mineral Sands Report*, Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries*, Washington DC; ABARE.

## Titanium

### 344 World rutile concentrate and titaniferous slag production, by country

	Rutile concentrate						Titaniferous slag	
	Australia kt	Sierra Leone kt	South Africa kt	United States kt	Other s kt	Total s kt	Canada kt	South Africa kt
1960	90	0	0	8	26	124	312	0
1961	103	0	0	8	25	136	374	0
1962	121	0	0	9	26	156	273	0
1963	185	0	0	11	24	220	344	0
1964	185	0	0	7	22	214	494	0
1965	221	0	0	5	22	248	495	0
1966	251	0	0	5	22	278	476	0
1967	270	24 a	0	5	23	322	547	0
1968	293	14 a	0	2	24	333	610	0
1969	326	28 a	0	0	26	380	680	0
1970	371	44 a	0	0	25	440	766	0
1971	375	12	0	0	25	412	774	0
1972	313	0	0	0	28	341	835	0
1973	335	0	0	8 a	27	370	855	0
1974	319	0	0	6 a	26	351	845	0
1975	348	0	0	10 a	28	386	748	0
1976	390	0	0	8 a	26	424	812	0
1977	325	0	0	7	30	362	691	0
1978	257	0	20	4	35	316	848	100
1979	275	7	42	0	40	364	476	316
1980	312	47	48	10	38	456	875	379
1981	231	51	50	15	40	387	762	408
1982	221	48	47	15	33	364	653	420
1983	163	72	56	18	34	343	612	420
1984	170	91	56	20	33	371	726	417
1985	212	81	55	30 a	35	413	844	435
1986	216	97	60	30 a	37	440	850	435
1987	249	113	56	30 a	35	480	915	632
1988	231	126	55	25 s	38	475	1 025	700
1989	243	128	61	25 s	42	499	1 035	692
1990	244	144	60	29 s	39	516	1 046	672
1991	192	155	90	27 s	86	550	701	808
1992	183	149	95	29 s	65	522	753	884
1993	187	150	100	21	71	529	653	892
1994	233	144	84	24	32	520	765	772
1995	204	0	92	19	50	365	816	988
1996	192	0	108	32	58	390	954	1 065
1997	233	0	108	35	54	435	914	1 075
1998	238	0	108	35	57	443	1 033	1 083
1999	179	0	118	37	58	397	928	1 100
2000	207	0	123	40	47	418	893	1 090
2001	203	0	122	30	59	414	990	1 030

a Bureau of Mineral Resources estimate. s ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics*, Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; TZ Minerals International, *Mineral Sands Annual Review*, Surrey, England; TZ Minerals International, *Mineral Sands Report*, Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries*, Washington DC.

# 345 Summary of Australian statistics for uranium

	Production a	Exports		
		Volume b	Value	Unit value
	t	t	\$m	\$/kg U <sub>3</sub> O <sub>8</sub>
1960-61	1 557	na	na	na
1961-62	1 362	na	na	na
1962-63	1 193	na	na	na
1963-64	367	na	na	na
1964-65	na	na	na	na
1965-66	na	na	na	na
1966-67	na	na	na	na
1967-68	na	na	na	na
1968-69	na	na	na	na
1969-70	na	na	na	na
1970-71	na	na	na	na
1971-72	na	na	na	na
1972-73	na	na	na	na
1973-74	na	na	na	na
1974-75	na	na	na	na
1975-76	484	na	na	na
1976-77	480	750	26.9	35.87
1977-78	696	1 452	87.0	59.92
1978-79	951	1 317	102.3	77.68
1979-80	1 837	1 210	98.4	81.32
1980-81	3 944	1 625	120.0	73.85
1981-82	5 968	5 460	415.0	76.01
1982-83	4 334	3 233	296.0	91.56
1983-84	5 836	3 259	312.1	95.77
1984-85	4 327	3 441	317.0	92.12
1985-86	4 450	3 210	296.0	92.21
1986-87	4 505	4 364	389.0	89.14
1987-88	4 193	4 552	411.0	90.29
1988-89	4 507	5 061	402.6	79.54
1989-90	4 089	4 812	314.8	65.42
1990-91	4 367	6 129	331.7	54.12
1991-92	4 329	4 729	244.8	51.76
1992-93	2 686	2 289	122.6	53.55
1993-94	2 733	3 992	193.3	48.42
1994-95	2 622	4 069	187.9	46.18
1995-96	5 088	5 286	241.8	45.75
1996-97	5 975	5 701	245.2	43.01
1997-98	5 788	6 415	288.2	44.93
1998-99	6 387	5 989	287.8	48.05
1999-00	8 217	8 025	366.6	45.68
2000-01	9 549	9 722	497.3	51.15
2001-02	7 964	7 367	360.7	48.96

**a** Tonnes of uranium oxide (U<sub>3</sub>O<sub>8</sub>). **b** Before 1983-84, exports are tonnes of concentrate; from 1983-84, exports are tonnes of U<sub>3</sub>O<sub>8</sub>. **na** Not available.  
 Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra.

## Uranium

### 346 World uranium production, by country <sup>a</sup>

	Australia kt	Canada kt	Gabon kt	Namibia kt	Niger kt	South Africa kt	United States kt	Total <sup>b</sup> kt
1970	0.25	3.52	0.40	0.00	0.00	3.17	9.90	18.90
1971	0.00	3.83	0.54	0.00	0.43	3.22	9.40	19.10
1972	0.00	4.00	0.21	0.00	0.87	3.20	9.90	20.11
1973	0.00	3.71	0.40	0.00	0.95	2.74	10.20	20.00
1974	0.00	3.42	0.44	0.00	1.12	2.71	8.90	18.70
1975	0.00	3.56	0.80	0.00	1.31	2.49	8.90	19.35
1976	0.36	4.85	0.85	0.65	1.46	2.76	9.80	23.17
1977	0.36	5.79	0.91	2.34	1.61	3.36	11.50	28.58
1978	0.52	6.80	1.02	2.70	2.06	3.96	14.20	34.12
1979	0.71	6.82	1.10	3.84	3.62	4.80	14.40	38.34
1980	1.56	7.15	1.03	4.04	4.13	6.15	16.80	44.24
1981	2.92	7.72	1.02	3.97	4.36	6.13	14.80	44.20
1982	4.42	8.08	0.97	3.78	4.26	5.82	10.30	41.46
1983	3.21	7.14	1.01	3.72	3.43	6.06	8.20	36.99
1984	4.32	11.17	0.92	3.70	3.28	5.73	5.70	38.85
1985	3.21	10.88	0.94	3.40	3.18	4.88	4.30	34.87
1986	4.15	11.72	0.90	3.30	3.11	4.60	5.20	37.21
1987	3.78	12.44	0.80	3.50	2.97	3.96	5.00	36.96
1988	3.53	12.29	0.93	3.51	2.97	3.80	5.04	36.43
1989	3.66	11.32	0.87	3.08	2.96	2.94	5.32	34.09
1990	3.53	8.73	0.70	3.21	2.83	2.49	3.42	28.36
1991	3.78	8.16	0.54	2.45	2.96	1.71	3.06	26.99
1992	2.33	9.30	0.54	1.68	2.96	1.67	2.20	23.88
1993	2.24	9.12	0.68	1.65	2.92	1.69	1.23	23.48
1994	2.20	9.69	0.65	1.90	2.98	1.69	1.40	23.64
1995	3.70	10.52	0.63	2.01	2.97	1.42	1.36	26.22
1996	4.96	11.40	0.56	2.45	3.16	1.44	1.81	29.32
1997	5.48	11.17	0.47	2.91	3.50	1.10	1.81	29.72
1998	4.89	10.92	0.73	2.78	3.71	0.97	1.81	27.57
1999	5.98	8.21	0.29	2.69	2.91	0.93	1.77	24.15
2000	7.58	10.68	0.00	2.72	2.91	0.84	1.52	27.75
2001	7.67	12.52	0.00	2.24	3.10	0.90	1.00	28.05

<sup>a</sup> Uranium (U); excludes current and former centrally planned economies. <sup>b</sup> Includes other Western producers not listed.

Sources: International Atomic Energy Agency, *Uranium: Resources, Production and Demand*, Vienna; Nuexco, *Annual Review*, Denver, Colorado; World Nuclear Association.

# 347

## World uranium consumption, by country <sup>a</sup>

	Canada kt	France kt	Germany <sup>b</sup> kt	Japan kt	United Kingdom kt	United States kt	Other kt	Total kt
1980	1.00	3.70	2.76	4.00	1.90	7.40	3.59	24.35
1981	1.10	4.40	1.95	4.70	1.30	8.30	4.84	26.59
1982	1.30	6.00	3.20	4.70	2.20	11.80	6.90	36.10
1983	1.40	6.50	2.70	3.50	1.50	8.90	5.85	30.35
1984	1.30	6.00	3.40	5.00	1.50	10.50	6.50	34.20
1985	1.30	6.00	3.20	4.70	2.20	11.80	6.90	36.10
1986	1.40	6.20	3.30	4.80	1.50	11.85	7.22	36.27
1987	1.60	6.20	3.30	6.00	1.55	11.15	7.70	37.50
1988	1.70	6.50	3.30	6.40	1.70	14.19	6.77	40.56
1989	1.80	7.20	3.30	6.60	1.90	14.50	7.39	42.69
1990	1.90	7.20	3.30	6.90	2.00	11.40	7.64	40.34
1991	1.90	7.30	3.30	7.10	2.00	16.00	8.30	45.90
1992	1.90	7.80	3.20	7.60	2.33	17.30	7.31	47.44
1993	1.90	7.90	3.20	8.10	2.04	17.30	9.34	49.77
1994	1.90	8.90	3.00	7.70	2.43	15.60	9.90	49.43
1995	1.90	8.90	3.30	7.70	2.51	18.40	9.74	52.45
1996	1.80	8.90	3.20	8.70	2.62	17.40	9.81	52.43
1997	1.80	8.60	2.90	7.50	2.62	21.30	8.41	53.13
1998	1.20	8.20	3.10	7.81	2.36	17.70	12.33	52.69
1999	1.30	8.20	3.10	9.29	2.36	18.10	12.19	54.54
2000	1.80	8.88	3.35	7.50	2.25	20.57	12.84	57.19
2001	1.80	8.57	3.20	11.10	2.25	18.42	12.32	57.66

<sup>a</sup> Annual reactor related requirements; excludes current and former centrally planned economies. <sup>b</sup> West Germany until 1991; unified Germany from 1992.  
Source: International Atomic Energy Agency, *Uranium: Resources, Production and Demand*, Vienna.

## Uranium

### 348 Uranium prices <sup>a</sup>

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Av.
1971	6.20	6.20	6.20	6.20	6.15	6.05	6.00	5.95	5.95	5.95	5.95	5.95	6.06
1972	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95
1973	5.95	6.00	6.10	6.20	6.45	6.50	6.50	6.50	6.50	6.50	6.75	7.00	6.41
1974	7.70	7.90	8.00	9.00	9.50	10.50	11.50	12.00	12.50	14.00	14.75	15.00	11.03
1975	16.00	16.00	18.00	20.00	21.00	23.00	24.70	26.00	26.00	28.50	30.00	35.00	23.68
1976	35.20	37.00	39.25	40.00	40.00	40.00	40.00	40.40	41.00	41.00	41.50	41.00	39.70
1977	41.35	41.50	41.60	41.60	42.00	42.25	42.25	42.25	42.40	42.75	43.20	43.20	42.20
1978	42.90	43.25	43.25	43.25	43.40	43.40	43.40	43.10	43.25	43.00	43.25	43.25	43.23
1979	43.25	43.25	43.25	43.25	43.25	43.00	42.70	42.70	42.20	42.20	41.00	40.75	42.57
1980	40.00	38.00	35.00	32.00	32.00	31.50	31.50	30.00	28.50	28.00	28.00	27.00	31.79
1981	25.00	25.00	25.00	25.00	25.00	24.25	23.50	23.50	23.50	23.50	23.50	23.50	24.19
1982	23.00	23.00	22.50	20.75	20.50	19.25	18.25	17.00	17.00	17.50	19.75	20.25	19.90
1983	21.50	21.75	22.25	23.25	23.50	23.50	24.00	24.00	24.00	23.50	22.50	22.00	22.98
1984	20.50	17.50	17.00	17.75	17.75	17.50	17.50	17.50	17.50	16.00	15.50	15.25	17.27
1985	15.00	15.00	15.00	14.25	15.00	15.00	15.75	16.00	16.00	16.50	16.75	17.00	15.60
1986	17.00	17.00	17.25	17.25	17.00	17.00	17.00	17.00	17.00	17.00	16.75	16.75	17.00
1987	16.65	16.75	17.00	17.00	17.00	16.90	16.75	16.65	16.65	16.75	16.65	16.55	16.78
1988	16.30	16.15	15.90	15.75	15.40	15.10	14.75	14.15	13.75	13.15	12.50	11.75	14.55
1989	11.60	11.20	10.70	10.10	9.85	9.80	9.80	9.70	9.60	9.40	9.20	9.00	10.00
1990	8.85	8.70	8.80	8.80	9.25	11.60	11.70	11.45	10.10	8.35	9.80	9.70	9.76
1991	9.10	9.50	9.30	9.10	9.20	9.05	8.55	8.75	8.40	7.25	7.40	8.75	8.70
1992	8.00	8.00	7.85	7.75	7.75	7.75	7.75	8.05	8.75	10.50	10.30	9.95	8.53
1993	9.70	10.00	10.00	10.05	10.05	10.00	9.90	10.00	10.20	10.15	9.90	9.85	9.98
1994	9.50	9.45	9.45	9.30	9.25	9.25	9.25	9.10	9.05	9.05	9.45	9.60	9.31
1995	9.65	10.40	11.15	11.60	11.80	11.90	11.85	11.70	11.70	11.70	11.85	12.20	11.46
1996	13.00	15.40	15.75	16.10	16.50	16.50	16.50	16.40	16.00	15.55	15.00	14.75	15.62
1997	14.45	13.75	13.50	12.45	11.70	10.80	10.55	10.30	10.35	11.85	12.75	12.35	12.07
1998	11.90	11.15	10.65	10.80	10.80	10.75	10.50	10.35	10.10	9.45	8.95	8.80	10.35
1999	9.75	10.55	10.70	10.90	10.65	10.55	10.30	10.10	9.90	9.75	9.65	9.53	10.20
2000	9.45	9.35	9.20	9.00	8.40	8.20	8.10	7.80	7.50	7.30	7.00	7.10	8.20
2001	7.15	7.60	8.30	8.60	8.65	8.90	8.90	9.10	9.30	9.40	9.45	9.55	8.74
2002	9.70	9.90	9.90	9.90	9.90	9.90	9.85	9.85	9.75	9.90	9.90	10.20	9.89

<sup>a</sup> Restricted exchange value after 1993, using Nuexco's exchange value up to 1996 and an average of four prices after 1996, US\$/lb U<sub>3</sub>O<sub>8</sub>. s ABARE estimate.

Sources: TradeTech, *The Nuclear Review*, Denver, Colorado (previously Nuexco, *Monthly Report*); Uranium Exchange Company, *The Ux Report*, Danbury, Connecticut.

# 349 European and US prices for delivered uranium

	EU medium or long term contract price US\$/lb U <sub>3</sub> O <sub>8</sub>	US average price for imported uranium US\$/lb U <sub>3</sub> O <sub>8</sub>	US average price for delivered uranium US\$/lb U <sub>3</sub> O <sub>8</sub>
1980	36.00	43.10	28.15
1981	33.25	32.90	34.65
1982	32.00	25.19	38.37
1983	31.00	26.16	38.21
1984	29.75	21.86	32.65
1985	29.00	20.08	31.43
1986	31.00	20.07	30.01
1987	32.50	19.14	27.37
1988	31.82	19.03	26.15
1989	29.35	16.75	19.56
1990	29.39	12.55	15.70
1991	26.09	15.55	13.66
1992	24.71	11.34	13.45
1993	21.17	10.53	13.14
1994	20.25	8.95	10.30
1995	17.48	10.20	11.11
1996	15.63	13.15	13.81
1997	15.16	11.81	12.87
1998	14.66	11.19	12.31
1999	14.25	10.55	11.88
2000	13.12	9.84	11.45
2001	na	na	na

na Not available.

Source: TradeTech, *The Nuclear Review*, Denver, Colorado (previously Nuexco, *Monthly Report*).

## Zinc

### 350 Summary of Australian statistics for zinc

	Production			Exports d		
	Mine a kt	Refined b kt	Consumption c kt	Volume kt	Value \$m	Price e \$/t
1960	323	122	92	175	17	222.8
1961	316	141	79	169	19	202.5
1962	343	171	86	210	23	196.8
1963	357	183	94	216	26	200.8
1964	350	189	110	184	37	284.2
1965	355	202	98	194	39	286.0
1966	375	198	90	241	47	270.5
1967	407	198	104	254	43	260.7
1968	416	198	102	267	44	262.0
1969	510	253	117	331	59	277.8
1970	487	268	115	390	71	295.0
1971	453	266	109	359	68	314.8
1972	507	304	114	346	80	339.8
1973	480	306	121	418	102	385.9
1974	464	284	120	374	139	543.2
1975	510	200	82	295	117	627.0
1976	462	249	86	388	159	655.7
1977	492	256	81	327	148	657.7
1978	473	295	92	465	157	533.6
1979	529	310	102	382	165	712.5
1980	495	306	100	481 f	251 f	713.1
1981	518	300	97	406	235	798.5
1982	665	296	81	521	323	849.0
1983	699	298	83	645	392	952.3
1984	677	302	77	661	469	1 187.7
1985	759	289	87	633	515	1 255.2
1986	712	303	81	662	489	1 242.2
1987	778	310	82	663	526	1 249.3
1988	760	302	90	674	631	1 560.7
1989	803	294	88	670	962	2 298.9
1990	933	303	82	825	1 159	2 094.7
1991	1 023	324	71	915	900	1 569.8
1992	1 019	332	71	995	1 135	1 816.9
1993	990	316	75	987	851	1 568.2
1994	955	323	79	978	785	1 499.9
1995	937	320	77	907	797	1 559.7
1996	1 070	326	73	983	808	1 478.4
1997	1 011	307	81	965	953	1 889.8
1998	1 063	311	93	1 002	1 025	1 806.6
1999	1 162	344	96	1 109	1 105	1 752.6
2000	1 419	493	85	1 333	1 718	2 046.7
2001	1 517	556	83	1 484	1 669	1 921.2

**a** Metal content. **b** Excludes secondary (scrap) and zinc dust production. **c** Refined metal only. **d** Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal. The value of zinc contained in other mine and smelter products (for example, zinc in lead concentrates) is included in the value of the product in which it is exported. **e** EZ Industries, Prime Western, 98.5 per cent purity. Before 1968, Prime Western grade zinc at Cockle Creek. **f** Zinc export code classifications changed substantially between 1979 and 1980, creating a break in the continuity of the series.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.



## 351 Australian supply and disposal of zinc

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
<b>Production</b>									
Mine <sup>a</sup>	kt	915	1 039	1 060	1 038	1 142	1 265	1 483	1 490
Refined									
Primary	kt	312	330	319	304	323	405	534	572
Secondary <sup>b</sup>	kt	10	10	11	10	7	5	5	6
<b>Exports</b>									
Ores and concentrates	kt	1 286	1 438	1 555	1 450	1 729	1 496	1 903	1 849
	\$m	404	434	491	581	690	682	977	735
Refined metal	kt	238	244	228	198	274	317	452	496
	\$m	372	383	353	407	444	550	905	794
<b>Consumption <sup>c</sup></b>	kt	79	82	78	90	90	90	90	90
<b>Export unit value</b>									
Ores and concentrates	A\$/t	313.8	301.4	315.7	400.9	399.0	456.2	513.5	397.5
Refined metal	A\$/t	1 563.2	1 565.7	1 550.3	2 048.7	1 617.8	1 734.0	2 000.6	1 601.2

<sup>a</sup> Metal content. <sup>b</sup> Includes remelted zinc and direct use of secondary materials. <sup>c</sup> Refined metal only.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat. no. 5464.0, Canberra.

## 352 Australian exports of zinc, by destination <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
<b>Ores and concentrates <sup>b</sup></b>								
Belgium	37	29	116	102	103	100	40	27
China	13	19	70	57	16	0	5	94
Germany	32	35	7	29	17	6	22	33
India	26	38	30	30	36	27	14	0
Italy	31	24	31	20	22	34	33	21
Japan	296	292	258	231	239	226	217	216
Korea, Rep. of	146	181	170	170	239	257	173	252
Netherlands	55	13	11	5	10	23	238	188
Thailand	5	42	44	25	27	43	52	32
United Kingdom	49	5	3	28	46	43	31	42
Other	21	16	6	43	21	57	65	119
Total	711	694	746	740	776	816	890	1 024
<b>Metal</b>								
Bangladesh	2	2	15	19	10	3	12	18
Chinese Taipei	33	40	36	36	49	67	72	63
Hong Kong, China	40	41	55	45	50	66	74	87
India	6	3	11	12	5	4	9	13
Indonesia	55	54	49	46	34	37	39	32
Japan	4	2	2	1	2	1	0	0
Malaysia	24	26	20	24	35	55	33	33
New Zealand	14	17	16	9	9	11	7	7
Thailand	13	10	13	9	4	3	4	9
United States	35	11	7	7	6	5	124	89
Other	39	28	33	31	24	28	53	106
Total	265	234	257	239	228	280	427	457

<sup>a</sup> Excluding slags, residues and scrap. <sup>b</sup> Metal content.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

## Zinc

### 353 World production, consumption, stocks and prices of zinc

	Production				Consumption c kt	Stocks b kt	Price d US\$/t
	Mine a kt	Refined metal		Total kt			
		Primary kt	Secondary b kt				
1960	3 384	2 993	163	3 156	3 114	448	246.9
1961	3 476	3 199	149	3 348	3 282	478	214.3
1962	3 600	3 322	155	3 477	3 438	477	186.5
1963	3 660	3 426	167	3 593	3 644	392	211.8
1964	4 083	3 683	177	3 860	3 986	390	324.0
1965	4 352	3 848	215	4 063	4 099	433	310.6
1966	4 550	4 045	242	4 287	4 292	461	280.4
1967	4 958	4 142	222	4 364	4 323	479	271.9
1968	5 113	4 613	224	4 837	4 701	452	261.7
1969	5 472	5 073	205	5 278	5 092	519	285.2
1970	5 590	4 975	259	5 234	5 013	682	294.5
1971	5 675	4 862	248	5 110	5 164	614	310.0
1972	5 866	5 247	269	5 516	5 679	586	378.4
1973	6 070	5 543	283	5 826	6 195	457	846.8
1974	6 129	5 720	274	5 994	6 000	759	1 237.5
1975	6 176	5 219	264	5 483	5 062	1 185	746.0
1976	6 249	5 545	266	5 811	5 779	1 140	711.7
1977	6 567	5 710	279	5 989	5 857	1 194	590.0
1978	6 401	5 801	237	6 038	6 329	833	593.3
1979	6 299	6 169	287	6 456	6 444	868	741.2
1980	6 108	5 958	285	6 243	6 289	787	761.3
1981	6 004	5 969	318	6 287	6 199	875	859.6
1982	6 275	5 701	355	6 056	6 043	800	745.7
1983	6 289	6 016	368	6 384	6 370	668	765.5
1984	6 523	6 327	351	6 678	6 539	626	891.0
1985	6 651	6 545	325	6 870	6 532	606	763.9
1986	6 534	6 085	295	6 380	6 747	615	753.1
1987	6 885	6 330	293	6 623	6 959	568	816.2
1988	6 714	6 579	299	6 878	6 848	496	1 240.5
1989	6 785	6 426	368	6 794	6 726	572	1 719.6
1990	6 965	6 296	395	6 691	6 666	534	1 520.0
1991	7 165	6 427	428	6 855	6 627	650	1 116.0
1992	7 260	6 605	425	7 030	6 550	989	1 240.0
1993	6 758	6 755	455	7 210	6 605	1 474	961.0
1994	6 806	6 628	503	7 167	6 982	1 669	998.0
1995	6 981	6 850	497	7 347	7 509	1 160	1 031.0
1996	7 287	6 919	524	7 443	7 570	913	1 025.0
1997	7 226	7 016	500	7 516	7 752	900	1 313.0
1998	7 569	7 524	497	8 021	7 912	762	1 023.0
1999	8 064	7 842	527	8 369	8 391	728	1 076.3
2000	8 830	8 400	577	8 984	8 891	647	1 128.4
2001	8 901	8 605	619	9 236	8 743	925	885.5

a Metal content. b Excludes former Soviet Union, eastern Europe and China. c Refined primary metal only. d Average London Metal Exchange cash, midday settlement price, registered brands, minimum 98 per cent purity.

Sources: BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London; Metallgesellschaft AG, *Metallstatistik*, Frankfurt.

# 354

## World zinc mine production, by region and country <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Africa</b>								
Congo, Dem. Rep. Of	1	0	0	3	1	1	0	0
Morocco	79	80	82	90	112	112	105	91
Namibia	33	30	35	37	42	35	40	38
South Africa	76	74	77	71	70	70	63	62
Tunisia	12	42	32	3	28	45	41	41
<b>Total</b>	<b>205</b>	<b>234</b>	<b>232</b>	<b>208</b>	<b>257</b>	<b>267</b>	<b>256</b>	<b>239</b>
<b>Americas</b>								
Argentina	27	32	31	33	36	34	35	40
Bolivia	101	146	145	154	151	145	149	145
Brazil	146	136	128	124	88	96	93	93
Canada	1 011	1 121	1 223	1 077	1 062	1 021	1 002	1 052
Chile	31	35	35	34	16	32	31	33
Honduras	23	27	37	40	37	41	43	48
Mexico	382	364	378	379	395	363	393	435
Peru	690	692	761	868	869	900	910	1 056
United States	597	644	628	632	755	813	837	842
<b>Total</b>	<b>3 008</b>	<b>3 197</b>	<b>3 366</b>	<b>3 341</b>	<b>3 408</b>	<b>3 445</b>	<b>3 494</b>	<b>3 744</b>
<b>Asia</b>								
China	990	1 011	1 121	1 210	1 273	1 476	1 780	1 572
India	147	154	154	142	195	185	208	222
Iran	73	78	76	77	86	98	102	105
Japan	101	95	79	72	68	64	64	45
Kazakhstan	152	155	157	223	224	283	322	320
Korea, Dem. Rep. of	90	90	80	60	44	37	34	28
Korea, Rep. of	7	8	9	9	11	10	12	5
Thailand	60	14	19	15	25	24	27	24
Turkey	34	65	68	64	58	57	48	36
Uzbekistan	31	15	12	2	0	0	0	0
<b>Total</b>	<b>1 699</b>	<b>1 699</b>	<b>1 792</b>	<b>1 890</b>	<b>2 005</b>	<b>2 258</b>	<b>2 623</b>	<b>2 398</b>
<b>Australia</b>	<b>928</b>	<b>882</b>	<b>1 008</b>	<b>972</b>	<b>1 020</b>	<b>1 110</b>	<b>1 379</b>	<b>1 476</b>
<b>Europe</b>								
Bulgaria	30	30	28	21	18	11	10	11
Finland	17	16	27	32	31	20	16	20
Greece	17	14	7	18	20	18	17	32
Ireland	194	184	163	193	180	200	263	298
Italy	22	23	12	8	5	0	0	0
Macedonia	21	21	22	21	24	21	25	20
Norway	16	10	9	7	1	0	0	0
Poland	151	155	159	158	158	154	157	145
Romania	35	37	31	29	25	27	27	28
Russian Federation	147	131	126	121	114	161	163	164
Spain	151	172	140	147	128	154	204	161
Sweden	160	169	160	155	161	175	177	159
<b>Total</b>	<b>966</b>	<b>970</b>	<b>898</b>	<b>925</b>	<b>880</b>	<b>946</b>	<b>1 063</b>	<b>1 044</b>
<b>Total</b>	<b>6 806</b>	<b>6 981</b>	<b>7 287</b>	<b>7 226</b>	<b>7 569</b>	<b>8 064</b>	<b>8 830</b>	<b>8 901</b>

<sup>a</sup> Recovered metal zinc content by analysis of zinc ores and concentrates, plus the zinc content of other ores and concentrates known to be intended for zinc recovery.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

## Zinc

### 355 World zinc metal production, by region and country <sup>a</sup>

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
<b>Africa</b>								
Algeria	24	27	30	30	27	27	26	26
South Africa	94	99	101	110	107	108	103	109
Other	1	0	0	0	0	0	0	0
Total	119	126	131	140	134	135	129	135
<b>Americas</b>								
Argentina	35	36	36	39	39	40	36	40
Brazil	199	194	187	186	177	187	192	193
Canada	691	720	716	704	745	777	780	658
Mexico	209	223	222	230	229	219	233	300
Peru	161	159	173	173	184	191	200	190
United States	356	363	366	366	368	372	363	299
Total	1 651	1 695	1 700	1 698	1 741	1 785	1 804	1 679
<b>Asia</b>								
China	1 017	1 077	1 185	1 434	1 486	1 703	1 957	2 078
India	157	159	149	166	180	189	204	234
Japan	666	664	599	603	608	633	654	644
Kazakhstan	172	169	169	185	240	243	262	277
Korea, Dem. Rep. of	100	100	90	55	43	40	37	31
Korea, Rep. of	271	279	287	335	390	430	477	508
Thailand	71	60	73	84	89	95	101	105
Turkey	20	19	24	37	36	27	0	0
Uzbekistan	58	70	45	53	52	27	34	35
Total	2 532	2 599	2 626	2 959	3 143	3 412	3 774	3 978
<b>Australia</b>	318	322	327	307	311	344	494	556
<b>Europe</b>								
Belgium	211	211	207	203	205	232	264	256
Bulgaria	77	80	80	82	86	84	84	84
Finland	173	177	179	176	199	225	223	249
France	309	314	324	317	320	318	318	329
Germany	360	356	362	348	361	361	357	357
Italy	256	260	269	268	232	145	170	179
Macedonia	39	41	38	53	57	49	58	52
Netherlands	212	208	207	203	217	221	217	206
Norway	137	131	135	136	138	144	138	145
Poland	158	165	163	171	175	179	179	175
Russian Federation	138	166	172	189	197	232	242	250
Spain	296	364	363	378	385	383	391	443
United Kingdom	101	100	99	93	79	89	76	90
Yugoslavia	4	6	31	29	14	1	8	10
Other	40	38	30	32	26	29	51	51
Total	2 511	2 617	2 659	2 678	2 691	2 692	2 776	2 876
<b>Total</b>	<b>7 167</b>	<b>7 347</b>	<b>7 443</b>	<b>7 516</b>	<b>8 021</b>	<b>8 369</b>	<b>8 984</b>	<b>9 236</b>

<sup>a</sup> Total production by smelters and refineries of zinc in marketable form or used directly for alloying, including production on toll in the reporting country, regardless of the type of source material. Remelted zinc and zinc dust are excluded.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

# 356

## World zinc trade, by country <sup>a</sup>

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
<b>Exports</b>								
<b>Ores and concentrates <sup>b</sup></b>								
Australia	711	694	746	740	776	816	890	1 024
Canada	383	604	669	473	391	327	304	472
China	140	77	55	191	95	119	70	7
Ireland	190	192	167	185	169	214	257	305
Mexico	158	127	na	135	155	141	138	117
Peru	465	488	580	618	592	601	620	747
Sweden	159	148	155	158	145	163	169	130
United States	389	424	425	461	552	531	523	698
<b>Metal</b>								
Australia	265	234	257	239	228	280	427	457
Belgium	148	161	145	143	105	86	99	91
Canada	551	533	582	547	577	611	603	495
China	270	181	218	544	354	507	561	544
Finland	137	126	128	129	156	187	168	175
CIS	160	164	135	167	253	225	235	245
France	130	209	227	177	144	128	111	127
Germany	103	63	72	63	57	56	65	71
Korea, Rep. of	86	37	25	97	159	154	177	209
Netherlands	161	144	165	193	263	245	223	284
Norway	120	112	113	124	117	122	117	113
Peru	81	78	109	109	125	124	125	121
Spain	157	165	183	180	114	136	96	94
<b>Imports</b>								
<b>Ores and concentrates <sup>b</sup></b>								
Belgium	250	277	149	238	221	505	442	415
Canada	152	177	182	182	210	266	208	140
Finland	166	211	146	146	193	203	216	204
CIS	75	60	60	90	207	130	141	102
France	316	310	302	317	282	301	318	284
Germany	306	330	245	166	208	120	156	175
Italy	249	229	259	259	248	126	158	152
Japan	508	545	463	512	486	564	531	575
Korea, Rep. of	288	267	308	330	400	441	480	537
Netherlands	195	186	133	172	209	221	213	152
Norway	76	62	62	62	73	71	68	76
Spain	167	na	141	258	255	287	283	344
United Kingdom	94	74	97	102	73	114	160	108
<b>Metal</b>								
Belgium	121	153	221	248	232	189	237	288
Chinese Taipei	170	206	196	225	241	273	294	277
France	116	138	108	114	117	129	128	127
Germany	248	229	192	240	265	252	251	260
Indonesia	84	96	89	84	58	55	87	89
Italy	92	114	102	97	149	198	213	176
Japan	64	117	135	181	113	57	81	64
Netherlands	130	130	74	118	154	125	172	178
Singapore	148	39	46	240	167	131	158	204
United Kingdom	124	145	132	137	161	112	119	111
United States	793	856	827	876	882	1 070	923	827

<sup>a</sup> Metal content. <sup>b</sup> Metal content of zinc ores and concentrates only. **na** Not available.

Source: International Lead-Zinc Study Group, *Lead and Zinc Statistics*, London.

## Zircon and monazite

### 357 Summary of Australian statistics for zircon and monazite

	Zircon concentrate				Monazite concentrate			
	Production a	Exports b			Production a	Exports		
	Volume kt	Volume kt	Value \$m	Unit value \$/t	Volume kt	Volume kt	Value \$m	Unit value \$/t
1960	101	103	2.7	26.2	0.4	0.2	0.0	0.0
1961	134	138	3.4	24.6	1.6	1.8	0.1	61.1
1962	132	130	3.3	25.4	0.8	1.5	0.1	80.0
1963	181	177	4.4	24.9	2.1	2.4	0.2	79.2
1964	181	196	5.1	26.0	2.1	2.1	0.2	85.7
1965	223	213	6.8	31.9	2.3	2.3	0.2	95.7
1966	232	207	9.0	43.5	2.0	2.1	0.2	114.3
1967	290	243	10.7	44.0	2.4	1.9	0.2	126.3
1968	292	262	11.0	42.0	2.1	2.6	0.4	134.6
1969	363	306	12.4	40.5	3.9	2.7	0.3	125.9
1970	389	380	13.9	36.6	4.4	4.8	0.6	129.2
1971	406	366	13.3	36.3	4.4	4.6	0.7	145.7
1972	357	386	13.8	35.8	5.1	4.6	0.6	121.7
1973	375	431	15.9	36.9	4.2	5.1	0.7	127.5
1974	368	384	32.2	83.9	3.6	3.8	0.5	142.1
1975	382	299	58.2	194.6	4.5	2.5	0.4	172.0
1976	420	345	54.5	158.0	5.3	3.2	0.5	165.6
1977	398	323	36.2	112.1	9.4	7.5	1.2	161.3
1978	392	390	29.4	75.4	15.0	11.6	2.4	205.2
1979	445	479	33.1	69.1	16.3	13.2	3.1	233.3
1980	492	502	35.1	69.9	14.1	10.3	3.4	329.1
1981	434	444	37.0	83.3	13.3	14.0	5.4	382.1
1982	462	405	43.1	106.4	9.6	15.3	6.1	400.0
1983	382	380	44.7	117.6	15.1	17.7	7.2	406.8
1984	458	438	51.8	118.3	16.3	18.1	7.6	421.5
1985	501	496	63.9	128.8	18.7	18.0	9.2	512.2
1986	452	446	74.5	167.0	14.8	14.1	9.2	651.1
1987	466	465	108.4	233.1	12.8	10.5	7.7	735.2
1988	480	464	189.6	409.0	12.2	9.7	7.6	787.5
1989	479	474	303.7	641.2	12.8	15.9	13.6	855.3
1990	443	332	205.0	616.7	11.1	11.1	9.9	894.0
1991	288	324	136.0	419.4	6.6	8.7	3.3	383.2
1992	355	310	71.6	230.8	5.6	5.7	1.7	300.0
1993	413	348	62.9	180.7	6.5	6.5	1.9	296.5
1994	511	504	124.1	246.2	2.3	2.7	0.8	290.3
1995	505	514	190.1	370.2	0.2	0.0	0.0	na
1996	460	424	248.3	585.8	0.0	0.0	0.0	na
1997	416	342	204.9	599.4	0.0	0.0	0.0	na
1998	385	399	225.9	566.6	0.0	0.0	0.0	na
1999	360	370 s	174.4 s	471.6 s	0.0	0.0	0.0	na
2000	365	372 s	198.0 s	532.2 s	0.0	0.0	0.0	na
2001	398	391 s	262.6 s	671.6 s	0.0	0.0	0.0	na

a Ex mine. b All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades until August 1999. s ABARE estimate. na Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## Zircon and monazite

### 358 Australian exports of zircon, by principal destination

	Italy kt	Japan kt	Netherlands kt	United States kt	Other kt	Total <sup>a</sup>	
						Volume kt	Value \$'000
1960	4	13	12	29	45	103	2.7
1961	6	25	21	33	53	138	3.4
1962	11	17	24	25	53	130	3.3
1963	16	22	24	55	60	177	4.4
1964	14	32	29	46	75	196	5.1
1965	17	28	29	52	87	213	6.8
1966	17	31	20	62	77	207	9.0
1967	21	57	22	64	79	243	10.7
1968	21	60	21	58	102	262	11.0
1969	25	72	31	75	103	306	12.4
1970	33	116	33	84	114	380	13.9
1971	24	91	27	71	153	366	13.3
1972	32	141	33	54	126	386	13.8
1973	41	155	38	88	109	431	15.9
1974	38	154	29	48	115	384	32.2
1975	31	102	16	41	109	299	58.2
1976	43	125	27	52	98	345	54.5
1977	32	89	38	60	104	323	36.2
1978	43	109	39	59	140	390	29.4
1979	65	188	35	66	125	479	33.1
1980	81	176	51	94	100	502	35.1
1981	57	156	53	64	114	444	37.0
1982	59	156	38	61	91	405	43.1
1983	44	163	45	20	108	380	44.7
1984	58	169	50	46	115	438	51.8
1985	60	197	48	30	161	496	63.9
1986	67	160	34	35	150	446	74.5
1987	56	171	30	59	149	465	108.4
1988	83	138	72	54	117	464	189.6
1989	63	139	65	68	139	474	303.7
1990	46	103	60	12	107	332	205.0
1991	41	122	29	19	113	324	136.0
1992 <sup>b</sup>	36	97	27	17	133	310	71.6
1993 <sup>b</sup>	6	47	4	16	275	348	62.9
1994 <sup>b</sup>	na	na	na	na	na	504	124.1
1995 <sup>b</sup>	na	na	na	na	na	514	190.1
1996 <sup>b</sup>	na	na	na	na	na	424	248.3
1997 <sup>b</sup>	na	na	na	na	na	342	204.9
1998 <sup>b</sup>	na	na	na	na	na	399	225.9
1999 <sup>b</sup>	na	na	na	na	na	370 <sup>s</sup>	174.4 <sup>s</sup>
2000 <sup>b</sup>	na	na	na	na	na	372 <sup>s</sup>	198.0 <sup>s</sup>
2001 <sup>b</sup>	na	na	na	na	na	391 <sup>s</sup>	262.6 <sup>s</sup>

<sup>a</sup> All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades until August 1999. <sup>b</sup> Confidentiality provisions prevent full reporting after 1991. Confidential country data included under Other. <sup>s</sup> ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics*, Canberra; ABS, *International Trade*, electronic data service, cat no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review*, AGPS, Canberra; BMR, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra.

## Zircon and monazite

### 359 World zircon production, by major producing country

	Australia kt	South Africa a kt	Ukraine kt	United States a kt	Other a kt	Total a kt
1960	101	na	na	na	na	na
1961	134	na	na	na	na	na
1962	132	7	na	45	11	195
1963	181	2	na	45	12	240
1964	181	0	na	54	10	245 b
1965	223	0	na	54	8	286 b
1966	232	0	na	70	18	320 b
1967	290	0	na	60	6	356 b
1968	292	0	na	60	8	360 b
1969	363	0	na	63	9	435 b
1970	389	0	na	56	7	452 b
1971	406	1	na	60	12	479 b
1972	357	1	na	75	52	485 b
1973	375	2	na	90	33	500 b
1974	368	12	na	110	30	520 b
1975	382	12	na	100	16	510 b
1976	420	11	na	80	9	520 b
1977	398	17	na	90	15	520 b
1978	392	50	na	75	33	550 b
1979	445	50	na	70	45	610 b
1980	492	80	na	60	28	660 b
1981	434	100	73	70	36	713
1982	462	125	82	78	33	780
1983	382	127	82	64	48	703
1984	458	153	82	67	44	804
1985	501	161	86	70	67	885
1986	452	140	86	85	60	823
1987	466	140	86	90	64	837
1988	480	130	86	115	103	918
1989	479	150	85	118	111	975
1990	443	150	50	102	111	856
1991	288	200	50	103	55	697
1992	355	220	50	108	53	786
1993	413	220	50	105	38	826
1994	511	205	50	114	62	942
1995	505	245	50	115	60	976
1996	460	302	53	117	56	997
1997	416	299	55	123	76	943
1998	385	279	57	152	85	943
1999	360	310	60	188	85	988
2000	365	317	60	180	62	989
2001	398	342	60	177	88	1 065

a Bureau of Mineral Resources estimates until 1987; other sources thereafter. b Excludes former centrally planned economies. na Not available.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review*, AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics*, Canberra; TZ Minerals International, *Mineral Sands Report*, Surrey, England; TZ Minerals International, *Mineral Sands Annual Review*, Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries*, Washington DC; ABARE.



## Where to find

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Australian Forest and Wood Products Research and Development Corporation	Land and Water Australia
Australian Greenhouse Office	Meat and Livestock Australia
Australian National University	Murray–Darling Basin Commission
Australian Quarantine and Inspection Service	National Tsinghau University, Taiwan
Australian Wool Exchange	New Zealand Ministry of Agriculture and Fisheries
Australian Wool Innovation Limited	New Zealand Prime Minister and Cabinet
Bureau of Transport and Regional Economics	Office of Resource Development, Northern Territory
Coal and Allied Industries Limited	Primary Industries and Resources, South Australia
Dairy Research and Development Corporation	Productivity Commission
Department of Agriculture, Fisheries and Forestry – Australia	Rural Industries Research and Development Corporation
Department of Foreign Affairs and Trade	Snowy Mountains Engineering Corporation
Department of Industry, Tourism and Resources	Western Australian Chambers of Minerals and Energy
Environment Australia	Woodside Australian Energy
Fisheries Research and Development Corporation	World Bank
Fisheries Resources Research Fund	
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