Agriculture and Forestry in the North West region of Victoria, 2013

Charlene Trestrail, Peter Martin, Kristen Corrie and Ian Frakes

Research by the Australian Bureau of Agricultural and Resource Economics and Sciences

About my region 13.21
March 2013
Contents

1 Regional overview ......................................................................................................................... 1
   Employment ................................................................................................................................. 1
2 Agriculture sector .......................................................................................................................... 3
   Value of agricultural production .................................................................................................. 3
   Number and type of farms ............................................................................................................. 3
   Farm financial performance—Victoria ........................................................................................... 5
   Performance of broadacre farms—Victoria .................................................................................... 5
   Performance of grains industry farms—Victoria ............................................................................ 6
   Performance of sheep industry farms—Victoria ............................................................................. 7
   Performance of beef industry farms—Victoria .............................................................................. 8
   Performance of dairy industry farms—Victoria ............................................................................ 9
3 Forestry sector ............................................................................................................................... 11

References .......................................................................................................................................... 12

Tables

Table 1 Number of farms, by industry classification, 2010–11.......................................................... 4
Table 2 Financial performance, Victoria broadacre industries, 2010–11 to 2012–13, average per farm .......................................................................................................................... 6
Table 3 Financial performance, Victoria dairy industry, 2010–11 to 2012–13, average per farm .......................................................................................................................... 10

Figures

Figure 1 Employment profile, North West region .............................................................................. 2
Figure 2 Value of agricultural production, North West region, Victoria, 2010–11 ......................... 3
Figure 2 Distribution of farms by estimated value of agricultural operations, North West, Victoria, 2010–11 .................................................................................................................. 4
Figure 4 Real farm cash income, broadacre industries, average per farm ....................................... 6
Figure 5 Real farm cash income, grains industry, average per farm ................................................ 7
Figure 6 Real farm cash income, sheep industry, average per farm ................................................ 8
Figure 7 Real farm cash income, beef industry, average per farm ................................................... 8
Figure 8 Real farm cash income, dairy industry, average per farm ................................................ 9

Maps

Map 1 North West region of Victoria .................................................................................................. 1
1 Regional overview

The North West region spans the north-west corner of Victoria, between the South Australian and New South Wales borders (Map 1). The region comprises the ten local government areas of Ararat, Buloke, Gannawarra, Hindmarsh, Horsham, Mildura, Northern Grampians, Swan Hill, West Wimmera, Yarriambiack, and part of Pyrenees, and the major regional towns of Ararat, Horsham and Ouyen. The region covers a total area of around 78 100 square kilometres or 34 per cent of Victoria’s total area and is home to approximately 147 400 people (ABS 2011).

The total land held by farm businesses was estimated to be 5 053 418 hectares in the North West region in 2010–11. Agricultural land in the region was mainly used for cropping (3 198 935 hectares) and grazing (1 499 191 hectares), with some forestry (4096 hectares) also taking place. In addition, 137 491 hectares of land held by farm businesses was set aside for conservation (ABS 2012).

Employment

Australian Bureau of Statistics (ABS) census data from 2011 indicates that around 63 900 people were employed in the North West region. The North West region accounts for 3 per cent of total employment in Victoria and 19 per cent of all people employed in the Victorian agriculture, forestry and fishing sector.

The largest employing sector was agriculture, forestry and fishing (10 585 people), which represented 17 per cent of the region’s workforce. Of this, 95 per cent were employed in agriculture, and 4 per cent in support services for the agriculture, forestry and fishing sector. In addition, an estimated 1594 people were employed in food product manufacturing and 227 people were employed in wood, pulp and paper product manufacturing in the region (included in manufacturing sector employment).
The second largest sector of employment was health care and social assistance (8291 people), followed by retail trade (7387 people), manufacturing (5027 people), and education and training (4620 people).

Figure 1 Employment profile, North West region

Source: Australian Bureau of Statistics
2 Agriculture sector

Value of agricultural production

In 2010–11 the gross value of agricultural production (GVAP) in the North West region was $3.1 billion, which was 27 per cent of the total gross value of agricultural production in Victoria ($11.6 billion) for 2010–11. This is the most recent year for which data are available from the ABS on GVAP for this region.

The North West region has a diverse and important agricultural sector. In 2010–11, the North West region accounted for around 96 per cent of the total value of Victorian legume production, 96 per cent of the total value of nut production, 91 per cent of the total value of grape production, and 86 per cent of the total value of citrus fruit production.

The most important commodity in the region, based on the value of agricultural output, was wheat (Figure 2). In 2010–11, wheat contributed 26 per cent ($807 million) to the total gross value of agricultural production in the North West region, and barley contributed 11 per cent ($343 million). Sheep and lambs accounted for 10 per cent ($297 million), fruit excluding wine grapes contributed 9 per cent ($294 million), and legumes contributed 7 per cent ($212 million).

Figure 2 Value of agricultural production, North West region, Victoria, 2010–11

Source: Australian Bureau of Statistics

Number and type of farms

ABS data indicate that in 2010–11 there were 6172 farms in the North West region with an estimated value of agricultural operations of more than $5000 (Table 1). The region contains 19 per cent of all farm businesses in Victoria.
Table 1 Number of farms, by industry classification, 2010–11

<table>
<thead>
<tr>
<th>Industry Classification</th>
<th>North West region</th>
<th>Victoria</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no.</td>
<td>%</td>
</tr>
<tr>
<td>Grain growing</td>
<td>2,201</td>
<td>36</td>
</tr>
<tr>
<td>Fruit and nuts</td>
<td>1,143</td>
<td>19</td>
</tr>
<tr>
<td>Mixed grains and livestock</td>
<td>913</td>
<td>15</td>
</tr>
<tr>
<td>Sheep</td>
<td>636</td>
<td>10</td>
</tr>
<tr>
<td>Dairy</td>
<td>227</td>
<td>4</td>
</tr>
<tr>
<td>Beef cattle</td>
<td>219</td>
<td>4</td>
</tr>
<tr>
<td>Other livestock</td>
<td>164</td>
<td>3</td>
</tr>
<tr>
<td>Mixed livestock</td>
<td>100</td>
<td>2</td>
</tr>
<tr>
<td>Vegetable</td>
<td>79</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>489</td>
<td>8</td>
</tr>
<tr>
<td>Total Agriculture</td>
<td>6,172</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Where the estimated value of agricultural operations is more than $5000.

Source: Australian Bureau of Statistics

Farms are classified in Table 1 according to the activities that generate most of their value of production. Grain growing (2201 farms) were the most common, accounting for 36 per cent of all farms in the North West region, and 72 per cent of all grain growing farms in Victoria.

A significant proportion of farms in the region are small in terms of their business size. Estimated value of agricultural operations (EVAO) is a measure of the value of production from farms and a measure of their business size, and is somewhat similar to turnover. Around 50 per cent of farms in the North West region had an EVAO of less than $150,000 (Figure 3). These farms accounted for only 9 per cent of the total value of agricultural operations in 2010–11. In comparison, 27 per cent of farms in the region had an EVAO of more than $350,000 and accounted for an estimated 75 per cent of the total value of agricultural operations in the region in 2010–11.

Figure 3 Distribution of farms by estimated value of agricultural operations, North West, Victoria, 2010–11

Source: Australian Bureau of Statistics
Agriculture and Forestry in the North West region of Victoria, 2013 ABARES

Farm financial performance—Victoria

Each year, ABARES interviews Australian broadacre and dairy producers as part of its annual survey program. Broadacre industries covered in this survey include the grains, grains–livestock, sheep, beef and sheep–beef industries. The information collected is a basis for analysing the current financial position of farms in these industries and expected changes in the short term. This paper uses data from the ABARES Australian agriculture and grazing industries survey (AAGIS) and Australian dairy industry survey (ADIS) to compare estimates of financial performance indicators (Box 1) for broadacre and dairy farms in Victoria.

Box 1 Definitions

<table>
<thead>
<tr>
<th>Major financial performance indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total cash receipts</strong>: total revenues received by the business during the financial year.</td>
</tr>
<tr>
<td><strong>Total cash costs</strong>: payments made by the business for materials and services and for permanent and casual hired labour (excluding owner manager, partner and family labour).</td>
</tr>
<tr>
<td><strong>Farm cash income</strong>: total cash receipts – total cash costs</td>
</tr>
<tr>
<td><strong>Farm business profit</strong>: farm cash income + changes in trading stocks – depreciation – imputed labour costs</td>
</tr>
<tr>
<td><strong>Profit at full equity</strong>: return produced by all the resources used in the business, farm business profit + rent + interest + finance lease payments – depreciation on leased items</td>
</tr>
<tr>
<td><strong>Rate of return</strong>: return to all capital, profit at full equity * 100 / total opening capital</td>
</tr>
<tr>
<td><strong>Equity ratio</strong>: Farm capital minus farm debt expressed as a percentage of farm capital</td>
</tr>
</tbody>
</table>

Industry types

- **Grains**: farms mainly engaged in producing broadacre crops such as wheat, coarse grains, oilseeds and pulses, and including farms running sheep and/or beef cattle in conjunction with substantial broadacre crop activity.
- **Sheep**: farms mainly engaged in running sheep.
- **Beef**: farms mainly engaged in running beef cattle.
- **Dairy**: farms mainly engaged in milk production.

Performance of broadacre farms—Victoria

Farm cash income for broadacre farms in Victoria is projected to decline from an estimated average of $96 200 per farm in 2011–12 to an average of $83 000 in 2012–13 (Figure 4, Table 2). If achieved, the 2012-13 farm cash income would still be around 15 per cent above the average farm cash income recorded for the 10 years to 2011–12.

In 2012-13, drier seasonal conditions reduced grain, oilseed and pulse production compared with 2011–12, but the reduction in production is expected to be mostly offset by higher grain prices. With the onset of drier seasonal conditions, receipts from beef cattle are projected to increase in 2012–13, with increases in beef cattle turnoff expected to more than offset a
reduction in sale prices. In contrast, receipts from sheep, lambs and wool are projected to decline by around 20 per cent this season mainly because of lower sheep, lamb and wool prices.

Farm cash incomes are projected to decline in all regions in 2012–13, with the largest decline projected for the Mallee, where there are estimated to have been larger reductions in crop yields. Increases in beef cattle receipts are projected across western Victoria due to higher cattle turnoff as a result of drier seasonal conditions, but sheep, lamb and wool receipts are projected to decline in all regions.

Figure 4 Real farm cash income, broadacre industries, average per farm

Note: p Preliminary estimate. y Provisional estimate.

Table 2 Financial performance, Victoria broadacre industries, 2010–11 to 2012–13, average per farm

<table>
<thead>
<tr>
<th>Performance indicator</th>
<th>units</th>
<th>2010–11</th>
<th>2011–12p</th>
<th>RSE (%)</th>
<th>2012–13y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cash receipts</td>
<td>$</td>
<td>332 520</td>
<td>317 300</td>
<td>(16)</td>
<td>306 000</td>
</tr>
<tr>
<td>Total cash costs</td>
<td>$</td>
<td>224 120</td>
<td>221 100</td>
<td>(16)</td>
<td>223 000</td>
</tr>
<tr>
<td>Farm cash income</td>
<td>$</td>
<td>108 390</td>
<td>96 200</td>
<td>(19)</td>
<td>83 000</td>
</tr>
<tr>
<td>Farms with negative farm cash income</td>
<td>%</td>
<td>16</td>
<td>21</td>
<td>(18)</td>
<td>25</td>
</tr>
<tr>
<td>Farm business profit</td>
<td>$</td>
<td>59 770</td>
<td>11 400</td>
<td>(152)</td>
<td>-5 000</td>
</tr>
<tr>
<td>Profit at full equity - excluding capital appreciation</td>
<td>$</td>
<td>89 700</td>
<td>40 400</td>
<td>(52)</td>
<td>23 000</td>
</tr>
<tr>
<td>Farm capital at 1 July a</td>
<td>$</td>
<td>3 341 830</td>
<td>3 042 700</td>
<td>(14)</td>
<td>na</td>
</tr>
<tr>
<td>Farm debt at 30 June b</td>
<td>$</td>
<td>301 160</td>
<td>291 000</td>
<td>(20)</td>
<td>301 000</td>
</tr>
<tr>
<td>Equity ratio b</td>
<td>%</td>
<td>91</td>
<td>90</td>
<td>(1)</td>
<td>na</td>
</tr>
<tr>
<td>Rate of return - excluding capital appreciation c</td>
<td>%</td>
<td>2.7</td>
<td>1.4</td>
<td>(39)</td>
<td>0.8</td>
</tr>
<tr>
<td>Off-farm income of owner manager and spouse b</td>
<td>$</td>
<td>34 740</td>
<td>38 600</td>
<td>(11)</td>
<td>na</td>
</tr>
</tbody>
</table>

Note: a Excludes leased plant and equipment. b Average per responding farm. c Rate of return to farm capital at 1 July. p ABARES preliminary estimates. y ABARES provisional estimates. na Not available. RSE Relative standard errors, expressed as a percentage of the estimate provided.

Performance of grains industry farms—Victoria

Average farm cash income for Victorian grains industry farms declined in 2011–12. Record grain and oilseed production in 2010–11 resulted in the carryover of significant grain stocks into 2011–12. Sale of on-farm grain stocks boosted crop receipts and helped offset the effect on crop
receipts of reduced grain production combined with lower grain prices. The sell-down of grain stocks cushioned the decline in farm cash income for grains industry farms but lowered the value of on-farm stocks, resulting in a relatively larger decline in farm business profit in 2011–12.

Overall, in 2012–13, crop receipts are projected to remain relatively similar for Victorian grains farms to those recorded in 2011–12, as higher crop prices offset reductions in crop production resulting from drier conditions through winter and spring, particularly in the Wimmera and Mallee regions.

Farm cash income for Victorian grains industry farms is projected to average $128 000 a farm in 2012–13, around 24 per cent above the industry average for the previous 10 years (Figure 5). However, farm cash incomes for Victorian grains industry farms were reduced by dry conditions throughout much of this period.

Figure 5 Real farm cash income, grains industry, average per farm

Note: p Preliminary estimate. y Provisional estimate.

Performance of sheep industry farms—Victoria

Farm cash incomes have been relatively high in historical terms for Victorian sheep industry farms in recent years (Figure 6).

In 2011–12, reductions of around 10 per cent in average prices received for adult sheep and lambs resulted in a small decline in average farm receipts for Victorian sheep farms. Despite a reduction in average cash costs resulting mainly from reduced expenditure on sheep purchases, average farm cash income for sheep industry farms declined to an average of $76 000 per farm.

In 2012–13, further reductions in adult sheep and lambs process, together with lower wool prices and a small reduction in wool production, are expected to more than offset increased sheep and lamb turnoff to result in a further decline in farm cash receipts. Despite reductions in expenditure on sheep purchases and interest payments, average farm cash income for sheep industry farms is projected to decline to average $56 000 per farm. This would still be around 9 per cent above the industry average of $52 000 per farm for the previous 10 years, in real terms.
Agriculture and Forestry in the North West region of Victoria, 2013 ABARES

**Performance of beef industry farms—Victoria**

A much smaller average herd size for Victorian beef industry farms, compared with the average for whole of Australia, results in average farm cash income for Victorian beef industry farms typically being well below the national average (Figure 7).

Turnoff of beef cattle, increased slightly in 2011–12 compared with 2010–11, to result in a small increase in total beef cattle receipts. However this increase was offset by a reduction in receipts from other farm activities, particularly receipts from crops and despite a small reduction in expenditure on beef cattle purchases, average farm cash income for Victorian beef industry farms remained similar to that recorded in 2010–11, an average of $30 000 per farm.

**Figure 6 Real farm cash income, sheep industry, average per farm**

![Graph showing real farm cash income for sheep industry in Australia and Victoria from 2000-01 to 2012-13.](image)

**Note:** p Preliminary estimate. y Provisional estimate.

**Figure 7 Real farm cash income, beef industry, average per farm**

![Graph showing real farm cash income for beef industry in Australia and Victoria from 2000-01 to 2012-13.](image)

**Note:** p Preliminary estimate. y Provisional estimate.
In 2012–13 drier seasonal conditions are projected to result in an increase in beef cattle turnoff, particularly in Western, Central and Northern Victoria, and an increase in overall beef cattle receipts despite a projected reduction in average prices received per head sold. Increased receipts plus a further reduction in expenditure on beef cattle purchases is projected to result in average farm cash income for Victorian beef industry farms increasing to average $41 000 per farm in 2012–13. This is around 16 per cent above the average of $36 000 for the previous 10 years, in real terms (Figure 7).

However, slowing in growth of beef herds that will result from increased cattle turnoff will result in a reduction in the build-up in trading stocks on Victorian beef industry farms. As a consequence, farm business profit for the beef industry is projected to decline in 2012–13.

Performance of dairy industry farms—Victoria

In 2011–12, a small increase in average farm cash income was recorded for Victorian dairy farms. Milk production increased by around 5 per cent, more than offsetting a reduction of around 3 per cent in the average farmgate milk price received as well as an increase in total cash costs. Farm cash income for Victorian dairy farms is estimated to have averaged $141 800 in 2011–12 (Table 3).

In 2012–13, with an increase of only around 1 per cent expected in milk production, a forecast reduction of around 8 per cent in average farmgate milk prices together with an increase in total cash costs, resulting mainly from higher fodder expenditure, are projected to result in lower average farm cash income for all Victorian dairy regions. Farm cash income for Victorian dairy farms is projected to decline to an average of $98 000 per farm, or around 5 per cent above the average for previous 10 years, in real terms. However, average farm cash income for Victorian dairy farms was low in many years during this period due to drought and reduced availability of irrigation water (Figure 8).

Figure 8 Real farm cash income, dairy industry, average per farm

Note: p Preliminary estimate. y Provisional estimate.
Table 3 Financial performance, Victoria dairy industry, 2010–11 to 2012–13, average per farm

<table>
<thead>
<tr>
<th>Performance indicator</th>
<th>units</th>
<th>2010–11</th>
<th>2011–12p</th>
<th>RSE (%)</th>
<th>2012–13y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cash receipts</td>
<td>$</td>
<td>527 560</td>
<td>583 700</td>
<td>(8)</td>
<td>540 000</td>
</tr>
<tr>
<td>Total cash costs</td>
<td>$</td>
<td>388 650</td>
<td>441 900</td>
<td>(8)</td>
<td>442 000</td>
</tr>
<tr>
<td>Farm cash income</td>
<td>$</td>
<td>138 900</td>
<td>141 800</td>
<td>(15)</td>
<td>98 000</td>
</tr>
<tr>
<td>Farms with negative farm cash income</td>
<td>%</td>
<td>11</td>
<td>16</td>
<td>(46)</td>
<td>22</td>
</tr>
<tr>
<td>Farm business profit</td>
<td>$</td>
<td>75 250</td>
<td>66 900</td>
<td>(33)</td>
<td>2 000</td>
</tr>
<tr>
<td>Profit at full equity - excluding capital appreciation</td>
<td>$</td>
<td>134 530</td>
<td>130 100</td>
<td>(20)</td>
<td>60 000</td>
</tr>
<tr>
<td>Farm capital at 1 July a</td>
<td>$</td>
<td>2 981 870</td>
<td>2 989 100</td>
<td>(8)</td>
<td>na</td>
</tr>
<tr>
<td>Farm debt at 30 June b</td>
<td>$</td>
<td>602 340</td>
<td>632 800</td>
<td>(11)</td>
<td>592 000</td>
</tr>
<tr>
<td>Equity ratio b</td>
<td>%</td>
<td>80</td>
<td>79</td>
<td>(3)</td>
<td>na</td>
</tr>
<tr>
<td>Rate of return - excluding capital appreciation c</td>
<td>%</td>
<td>4.4</td>
<td>4.3</td>
<td>(16)</td>
<td>2.0</td>
</tr>
<tr>
<td>Off-farm income of owner manager and spouse b</td>
<td>$</td>
<td>22 080</td>
<td>20 000</td>
<td>(22)</td>
<td>na</td>
</tr>
</tbody>
</table>

Note: a Excludes leased plant and equipment. b Average per responding farm. c Rate of return to farm capital at 1 July.
P ABARES preliminary estimates. y ABARES provisional estimates. na Not available. RSE Relative standard errors, expressed as a percentage of the estimate provided.
3 Forestry sector

In 2010–11, the total plantation area in the North West region was approximately 35,300 hectares, comprised of around 26,800 hectares of hardwood plantations and 8,500 hectares of softwood plantations. The main hardwood species planted in the North West region is blue gum (*Eucalyptus globulus*) and the main softwood species planted is radiata pine (*Pinus radiata*).

In 2008, there were around 2.4 million hectares of native forests in the North West region, comprised mainly of eucalypt mallee woodland (1.5 million hectares) and eucalypt medium woodland (344,000 hectares) forest types. The majority of the native forests are managed for nature conservation (1.6 million hectares), while 362,000 hectares are privately managed and 354,000 hectares are multiple use forests available for timber production. Timber processing industries are located at Koondrook.

Total sales and service income in the Victorian forest and wood product industry was estimated at around $7.8 billion in 2010–11, of which $4.4 billion was from the sale of paper and paper products, and the remaining $3.4 billion was generated from other wood product sales. Victoria is also the third largest exporter of woodchips in Australia, exporting around 1.1 million bone dry tonnes in 2010–11, valued at $197 million. In 2011–12, both the volume and value of woodchip exports increased to 1.5 million tonnes and $271 million respectively. Victoria is the only state that reported an increase in woodchip exports between 2010–11 and 2011–12.
References
