Australia: Organic Agriculture in 2010/11 and 2015/16[[1]](#footnote-1)

Els Wynen[[2]](#footnote-2)

In 2010/11, the Australian Bureau of Statistics (ABS) included organic agriculture in its census, and again in 2015/16. In this paper, the progress of the Australian organic world between those two years is summarised both for land-use and for farm-gate values. In addition, some background information is provided for crop area, organic production and prices paid to producers.

Organic farmland and land use

Table 1 shows that the growth of “land mainly used in agricultural production” on properties with organic production occurred in particular in “other land,” that is, in unimproved pasture. This category, including mainly extensive grazing areas, grew 2.5-fold between 2010/11 and 2015/16 and comprised 91 percent of the total organic farmland in 2015/16 – up from 88 percent in 2010/11. The main commodity produced on unimproved pasture is beef. Looking at cropland on organic properties, we see that it was 16 percent less in 2015/16 than in 2010/11.

Table 1: Australia: Land use in organic agriculture in different years

|  |  |  |  |
| --- | --- | --- | --- |
|   | 2010/11 | 2015/16 | Change  |
|   | Hectares | % of total | Hectares | % of total | % |
| Total area of holdings  | 11,833,915  |  100%  |  28,876,574  |  100% | 144% |
| Land mainly used for agricultural production  | 11,439,212  |  97%  |  27,511,047  | 95% | 140% |
| * Crops
 |  200,197  |  2%  |  169,087  |  1%  | -16%  |
| * Forestry plantation
 |  4,482  |  0%  |  4,299  |  0%  | -4%  |
| * Total grazing
 | 11,233,816  |  95% |  27,324,242  |  95%  |  143%  |
|  improved pasture  |  851,710  |  7% |  941,040  |  3%  |  10%  |
|  other land  | 10,382,107  |  88%  |  26,383,202  |  91%  |  154%  |
|  Other agricultural purposes |  716  |  0%  |  647,074  |  2%  | N/A |

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018). Please note that the data shown in this table are not always the same as those shown in other parts of this book, as the data sources are not the same

Of the area under broadacre crops,[[3]](#footnote-3) wheat (the main cereal crop) decreased the most, to a bit over half of that in 2010/11 (Table 2). Also, barley (the second most important cereal crop) decreased its acreage by almost a quarter while the oat area increased marginally. The decrease in area under these crops is due partly to a change in water policy in Australia, making it attractive to some farmers using irrigation (including some large organic farms) to sell their land. However, 2015/16 was also a dry year. Farmers who use irrigation, such as grain farmers, are more likely to suffer from adverse weather conditions than fruit and vegetable growers. In addition, grain producers also struggle with issues such as nutrients and weeds, making some conventional grain growers more hesitant to convert.

Table 2: Australia: Crop area in different years

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2010/11 | 2015/16 | 2015/16 minus 2010/11 | 2015/16 minus 2010/11 |
|  | Hectares  | Hectares | Hectares | % change |
| Area mainly used for crop[[4]](#footnote-4) |  200,197  |  169,087  | - 31,110  | - 16  |
| Crops - total |  109,583  |  94,981  | - 14,602  | - 13  |
| Crops - broadacre |  95,010  |  64,866  | - 30,144  | - 32  |
| * Wheat
 |  44,366  |  24,759  | - 19,606  | - 44  |
| * Barley
 |  10,505  |  8,215  | - 2,290  | - 22  |
| * Oats
 |  8,013  |  8,319  |  306  |  4  |
| Fruit – excl. grapes |  4,093  |  4,567  |  473  |  12  |
| Grapes – total |  4,079  |  5,783  |  1,704  |  42  |
| * Grapes – wine
 |  3,970  |  4,895  |  925  |  23  |
| * Grapes - other
 |  110  |  888  |  779  |  711  |
| Vegetables |  2,779  |  3,902  |  1,123  |  40  |

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018)

Fruit production area (other than grapes) increased somewhat (12 percent), but the most significant increase in area was seen on properties with mainly vegetables(40 percent).

Production volumes

Production volumes for some commodities decreased between 2010/11 and 2015/16 (Table 3).

Table 3: Australia: Production of selected commodities in different years

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | 2010/11 | 2015/16 | Change  | % change |
| Wheat | Metric ton |  79,707  |  37,864  | -41,843 | -52% |
| Barley | Metric ton | 18,204  | 17,024  | -1,180 | -6% |
| Oats | Metric ton | 12,392  | 7,108  | -5,284 | -43% |
| Grapes for wine | Metric ton | 48,743  | 56,140 |  7,397.6  | 15.2%  |
| Cattle - meat | No. |  340,387  |  803,140  | 462,753 | 136% |
| Sheep and lamb | No. |  859,823  | 725,180  | -134,643 | -16% |
| Dairy cattle | No. |  12,554  | 15,394  | 2,840 | 23% |

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018)

The decrease in the production of wheat between 2010/11 and 2015/16 is quite in line with the decrease in wheat production area. For barley, however, almost as much barley was produced in 2015/16 as in 2010/11 despite a decrease of almost one quarter in the area under barley. For oats, the period saw a decrease of 22 percent in the production volume, despite having a similar area in 2010/11 and 2015/16.

For the livestock sector, the values represent the production capacity (that is, stock on the farm in that year) rather than actual production. The biggest increase was seen in beef, which increased by 136 percent between 2010/11 and 2015/16. The only decrease was in sheep and lamb production, which dropped by 16 percent. Organic dairy grew moderately compared to beef but still showed a 23 percent increase in numbers of milkers and dry cows.

Value of Agricultural Commodity Production (VACP)

In 2015/16, the Value of Agricultural Commodity Production (VACP) [[5]](#footnote-5) or farm-gate value of organic production was estimated at well over 1.1 billion Australian dollars[[6]](#footnote-6) (see Table 4), well over two times the value estimated five years earlier (446 million Australian dollars), in 2010/11.

Table 4: Australia: Farm-gate value and growth rate in different years: main organic sectors

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Commodity | Farm-gate value 2010/11 | Farm-gate value 2015/16 | Change | Annual compound growth rate |
|   | Million Australian dollars | Million Australian dollars | % | % |
| Total crops | 283 | 372 | 31 | 6 |
|  - Cereals for grain | 38 | 51 | 34 | 6 |
|  - Vegetables | 63 | 91 |  44  | 8 |
|  - Fruit (incl. grapes for wine) | 130 | 188 |  44  | 8 |
|  - Other | 51 | 42 | -17 | -4 |
|   |  |  |  |  |
| Total livestock | 118 | 658 | 459 | 41 |
|  - Cattle and calves | 81 | 479 | 488 | 43 |
|  - Sheep and lambs | 14 | 15 | 7 | 1 |
|  - Poultry | 14 | 139 | 864 | 57 |
|  - Other | 8 | 25 | 221 | 26 |
|   |  |  |  |  |
| Total livestock products | 45 | 119 | 164 | 21 |
|  - Milk | 41 | 56 | 36 | 6 |
|  - Eggs | 4 | 63 | 1498 | 74 |
| Total crops and livestock | 446 | 1,149 | 158 | 21 |

Based on: ABS (Customised report, 2016) and ABS (Customised report, 2018).

In the crop sector, growth between the two years was recorded in particular in fruit and vegetables. Over half of the increase was generated by the beef sector (cattle and calves). Also, poultry and eggs (in the livestock sector and the livestock products sector, respectively) showed a remarkable growth rate in those five years, albeit less in absolute figures, due to starting from a considerably lower base. However, industry sources estimate that the returns are considerably lower for both of these sectors than ABS does (see footnote 1).

Farm-gate value is dependent on production, which is also dependent on area under crop or grazing land, which decreased by 3 percent, from 0.20 to 0.17 million hectares (see Table 2).

Changes in VACP are also influenced by **product prices,** both conventional and organic. As an increase in either of them between the two years of comparison can give rise to perceived growth in a sector (even when there is no growth in production), it is also important to look into these two factors to determine real growth.

In crops, the price index showed little change in conventional prices between the two years (5 percent), although there is a rather large difference between grain (13 percent increase) and fruit (11 percent decrease). For fruit, the decrease in conventional prices is more or less neutralised by the increase in organic premiums. This contrasts with the contributions of vegetables, which remained similar, with only small conventional price increases, and small premium increases. This, of course, is only true for the group of vegetables as a whole, and possibly not so for individual kinds of vegetables.

By far the greatest effect of these two forces is on beef, for which the conventional price index indicated a price increase of 46 percent, while the premium percentage stayed similar (which means that it also increased substantially in absolute terms). This means that a large part of the increase in farm-gate value for beef was due to increases both in conventional price and in organic premiums. Changes in both the conventional prices and organic premiums were small for other commodities in 2015/16, so they didn’t change the general picture for productivity or otherwise.

In other words, it is clear that there was growth in organic agriculture in Australia in the first half of the 2010s, though there is a large difference between the commodities. There is more **total area** under certified organic management, but less under **organic cropping** (or more-intensive industries than on pastoral properties). The **total farmgate value** of organic production has also increased (even excluding the beef industry), mainly due to vegetables and fruit, and poultry and egg production.

In summary, the farmgate value in Australia grew from 446 to 1,149 million Australian dollars between 2010/11 and 2015/16, or 158 percent. This is an annual compound growth rate of 21 percent.

It makes sense, however, to split the extensive beef sector from the more intensive cropping-livestock sector. In the former, certification is often obtained for marketing reasons, as the management is close to being organic anyway, and in the latter, a thorough change in management is often needed before certification can be obtained.

The extensive beef sector experienced a six-fold increase between 2010/11 and 2015/6, which is an annual compound growth rate of 43 percent. For the more intensive sector, the farm-gate value showed an annual compound growth rate of 13 percent. However, if the ABS data for grapes for wine, poultry and egg production (the three sectors that create problems for accurate measurements of organic production) is replaced with rough estimates from the industry, then the figures are reduced to a less than 10 percent annual compound growth rate.

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1. This article is an excerpt from Research Paper 2019-1 published by Organic Trust Australia – Research and Education, accessible on http://www.organictrustaustralia.org.au. It was first published in Willer and Lernoud (2019). [↑](#footnote-ref-1)
2. Dr. Els Wynen, Eco Landuse Systems, Canberra [↑](#footnote-ref-2)
3. In [Australia](https://en.wikipedia.org/wiki/Australia), broadacre is the term for land suitable for large-scale [crop](https://en.wikipedia.org/wiki/Crop) production. [↑](#footnote-ref-3)
4. This category refers to land that can be used for crops, but these areas are not necessarily used every year. [↑](#footnote-ref-4)
5. ABS calculates the VACP by multiplying total production – obtained by the census – by market prices. This can create problems in those industries where the whole farm is not under organic management. Grapes for wine, poultry and egg industries are especially implicated here. [↑](#footnote-ref-5)
6. In 2017 (average exchange rate), 1 Australian dollar corresponded to 0.68 euros according to the European Central Bank. [↑](#footnote-ref-6)