Economics of organic farming in Australia

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1. Introduction

Like in many other countries, organic agriculture in Australia is practised by less than 1 per cent of the total producers. Conacher and Conacher (1991) estimated the total number of commercial organic farmers to be between 950 and 1200 in 1990, which represented between 0.75 and 0.95 per cent of the total of 126,000 producers. This figure is up from their estimate of less than 500 in 1982 although, due to changes in definitions, those figures are not strictly comparable.

The only detailed study on the economics of organic farming in Australia published to date was carried out in the cereal-livestock sector (including mixed cropping where, apart from cereals, also other crops are grown) (Wynen 1989a). This sector constitutes 29 per cent of the total farm population, judging on the response to a call for participants for a survey on organic farming between 1984 and 1986. According to these estimates there would have been between 275 and 350 commercial organic cereal-livestock in Australia in 1990.

This study on the economics of organic farming was carried out in 1986 and 1987, and pertained to the financial year (July to June) 1985-86. It covered farmers in south-eastern Australia, which includes southern Queensland, New South Wales, Victoria and South Australia.

In total 13 organic farmers were interviewed, of whom 8 were 'fully sustainable', and 5 'semi-sustainable'. All had farmed that way for at least 5 years. At the time of the interviews no organic licensing scheme was in operation in Australia. However, it is likely that those classified as 'fully sustainable' would have been able to qualify as level-A ('organic') in one of the two present national organic certification schemes, while those in the 'semi-sustainable' category would most probably have received level-B ('organic-in-conversion) or a similar qualification. The results of the study are mainly those of the 8 'fully-sustainable' farmers. The exception is the data on demographical characteristics and on farmers opinions. In the rest of the chapter these farmers are referred to as 'organic'.

The organic farmers were each compared with one neighbour who was a broadacre cereal grower. To find an appropriate comparison, local officers of the Department of Agriculture were asked to nominate a conventional farmer who, in their opinion, was at least as good a manager as the organic farmer, while similar in other factors such as soil type, local climate, and farm size. Where possible, the organic farmers were asked for their opinion, which was taken into account when making the final decision.

All thirteen pairs of farmers were asked to grade themselves and their neighbour as managers. Of the group of organic farmers two of the ten respondents thought that they were better managers than their neighbour, six that they were similar, and two that they were worse managers. Of the eleven conventional farmers, six considered themselves better managers than their neighbour, and five that they were similar to their neighbours. For most pairs of farmers the grading was

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1 At the time of the study the word 'sustainable' was used in Australia. For the purposes of this study it was defined according to the definition of 'organic' in US Department of Agriculture (1980).
similar (only one point different on a scale from one to nine) except for two pairs, where both farmers thought that the conventional farmer was a considerably better manager (three or four points out of the nine points different).

2. Characteristics of the Australian cereal-livestock industry

The cereal-livestock sector was the largest single broadacre industry in Australia in 1990-91. In that year 23,800 out of a total of 82,200 broadacre operators were cereal-livestock producers, which compares with 21,700 farmers in the sheep-only and 20,400 in the beef-only sectors. The 'sheep-beef' and 'wheat and other crops' sectors are considerably smaller with 10,100 and 7,100 producers, respectively. These figures exclude the dairy and horticulture industries, with 14,100 and 7,700 enterprises respectively, in 1989-90 (Australian Bureau of Agricultural and Resource Economics 1992, pp.3-5).

In eastern Australia the cereal-livestock industry is situated in those areas where the land is not too steep for cropping, and where the amount of rainfall allows a cereal crop to be grown. This means that, in general, cereals are grown on the plains west of the Great Dividing Range (a mountain range stretching from the north to the south near the eastern Australian coast). Rainfall rate decreases, and the area becomes less suitable for cropping mainly according to the distance from the coast.

Crop production (wheat or barley) has traditionally been considered the highest income-producing enterprise in the Australian cereal-livestock industry. Livestock are kept as a means of diversification, and to make use of resources on the farm not used for cropping. On most farms, some non-arable land can be grazed; and, due to rotational requirements on the arable land, some arable land can be available for livestock. Sheep compliments cropping in those areas were rainfall is less reliable, whereas cattle are preferred in higher, or more reliable, rainfall areas. Over the years, farmers change their mix of grain or livestock depending on expected relative output prices.

More recently the trend on these cereal-livestock farms has been toward more and more cropping. When world wheat prices are low, many farmers look towards including other crops such as lupins, peas and beans in their rotation. However, this is not always possible in all areas.

In general, Australian farmers will use superphosphate on their farms, applied at planting of the crop. In some areas nitrogen is also applied, and trace elements are sometimes considered essential. Application of fertiliser is at lower rates than in Europe, and rates of between 50 to 100 kgs per hectare of fertiliser with 11.5 per cent of nitrogen and 21 per cent of phosphorus on wheat are common.

Synthetic pesticides used on farms are mainly weedicides (pre- and post-emergent); a fungicide as seed dressing; and an insecticide to protect stored grain. Sometimes an insecticide is applied in the soil against pests such as red legged earth mite (*Halotydeus destructor*). In the growing crop no pesticides are used as a rule, except in very wet years when fungicides may be applied against various forms of rust. However, such years are exceptional, as the Australian farmers' enemy is mainly dry weather in the latter part of the growing stages.
Livestock are treated against lice (dips), internal parasites (drenches), diseases (vaccines), and fly-strike (crutching to prevent strike, and a pesticide when sheep are fly-struck, that is, the fly has laid eggs in the sheep's flesh, and the resulting maggots are alive).

3. Characteristics of organic farms and farmers

For the comparison between the organic and conventional cereal-livestock farmers, all producers were asked about demographic factors as well as about the physical and financial measurements on their farms.

Of the 13 pairs of farmers analysed, the average age, years farmed and education level of the two groups were similar. The organic farmers were, on average, 48 years and their conventionally farming neighbours 51. The organic farmers had farmed 29 years on average (20 of which as organic farmers), and the conventional farmers 35 years. Also education levels were similar.

Compared to the conventional farms, the eight fully-organic farms in the survey were of similar size, with similar improved capital value, which includes land and improvements (see Table 1). The average figures given for the different components of farming are non-weighted averages.

Arable land as a percentage of the total area operated was not statistically different between the two groups of farms, while conventional farmers cropped over 50 per cent more than their organically farming neighbours (77 as compared to 47 per cent of arable land). No statistical difference could be shown in the stocking rate of the two types of farms.

On organic cereal-livestock farms in Australia lack in phosphate is usually solved by using rock phosphate, while the nitrogen requirements are often provided by nitrogen-fixing plants in the pasture phase.

In crop production, weeds are the main problems for organic farmers. A large part of the farming enterprise is directed to cope with them, for example by way of:

- design of rotation: the lower cropping rate in the rotation on organic farms facilitates management of weeds, apart from the soil fertility requirements
- choice of enterprise: the livestock enterprise is often considered to be essential on an organic farm
- manipulation of planting dates: where later planting allows for better weed control
- mowing crop before harvesting: when a crop has too many weeds, an organic farmer might use the crop for hay, and mow it before the weed can set seeds
- choice of cultivation technique: organic farmers tend towards a ripping implement instead of a disc or mouldboard plough; after a cereal crop they do not burn the stubble
- hand pulling of weeds
- adaptation of seeding rate, with some farmers using considerably heavier rates than customary to smother out weeds.
Table 1: Some characteristics of organic and conventional farms in south-eastern Australia: 1985-86

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<tr>
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<tbody>
<tr>
<td>Area operated (ha)</td>
<td>755</td>
<td>928</td>
<td>-173</td>
<td>n.s.</td>
</tr>
<tr>
<td>Improved capital value ($/ha)²</td>
<td>1011</td>
<td>1038</td>
<td>-28</td>
<td>n.s.</td>
</tr>
<tr>
<td>Arable area (% of area operated)</td>
<td>74</td>
<td>82</td>
<td>-8</td>
<td>n.s.</td>
</tr>
<tr>
<td>Area cropped (% of arable area)</td>
<td>47</td>
<td>77</td>
<td>-30</td>
<td>***</td>
</tr>
<tr>
<td>Stocking rate (dse/ha)</td>
<td>1.9</td>
<td>1.3</td>
<td>0.6</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Notes: statistically significant difference calculated with the paired Wilcoxon test:

n.s. = not significant at 90 per cent confidence level

*** = significant at 99 per cent confidence level

dse = dry sheep equivalent

With one exception, none of the organic farmers were using a seed protectant (fungicide). They considered that that did not result in problems.

Some organic farmers had expected, in the early years of conversion, damage by the red legged earth mite (*Halotydeus destructor*). But that soil pest problem seemed to resolve itself without intervention from the farmer.

To prevent insect damage in storage, farmers needed a special kind of storage (air-tight containers) which does not require a synthetic insecticide (although some other substance such as carbon di-oxide is still needed to keep the product insect-free). Several farmers had increased their storage space in order to accommodate produce which they could not sell at harvesting time.

Insects in stock are generally more of a problem. For external parasites, all farmers used dips to some degree, although not necessarily in each year and not necessarily of a kind which is not permitted under organic management.

The same picture emerges for the internal parasites, where some farmers drench only some of the flock (such as the lambs at weaning), or when they are bought on to the farm.

Against fly-strike many organic farmers had the long-term strategy of culling. However, for the short term strategy many used conventional methods on those sheep which were struck by flies.

Vaccines are not used on a regular basis. Some organic farmers employ them on part of the flock, for example on lambs at marking time.

² Currency used is the Australian dollar. As on 17 February 1993 $A1 = $US 0.685
On average, organic farmers spent about one quarter of the amount spent by conventional farmers on veterinary chemicals. The expenses on organic farms included materials which are allowed by organic licensing schemes at present. In general, farmers tried to prevent to have to use veterinary chemicals by keeping their sheep healthy by:

- feeding on organically grown feed, possibly supplemented with minerals
- breeding own replacement stock so that less problems occurred with internal and external parasites
- buying stock from specific areas which are known to have no or few pest problems
- having relatively small paddocks, so that stock could be moved regularly, to minimise internal pest problems
- having good boundary fences, so that stock does not get lice from neighbours' sheep.

Most farmers who planted into stubble (from a grain in the previous year) reported that, in the early years of organic management, they experienced problems with seeding (for example, blockage of the machinery which resulted in poor germination). They mentioned that they had to adjust their existing equipment or buy machines which could cope with the extra stubble.

None of the farmers mentioned availability of organic feed as a limiting factor in their operations. In another study on cereal-livestock farming (Wynen 1992) where this question was specifically asked, none out of seven farmers bought feed in 1990-91. It is reasonable to assume that feed availability is generally not a problem.

For more details about practices of Australian organic cereal-livestock farming and comparisons with conventional farmers see Wynen (1990 and 1992).

4. Productivity of organic farming systems

In Table 2 wheat yields are shown. For the livestock enterprise gross returns are displayed. As a combination of sheep and cattle can be kept, and sheep can be kept for different purposes (such as wool, meat or a combination of the two), comparison of the physical output of the livestock enterprise does not make much sense.

The average wheat yields on organic farms were similar to those on conventional farms. The gross returns from livestock (meat and wool) were not statistically different between the two systems. At the time of the survey no farmer received price premiums for livestock products. Although, at present (1993), there are some outlets for organic meat, price premiums are still not received by most organic farmers.

The variability of wheat yields was analysed to determine whether organic farmers fare better in dry years. Dry conditions in the maturing stage of the grains is an important determinants of cereal yield levels on Australian farms. Many of the organic farmers mentioned that, in dry years, their crop seemed to suffer later from lack of water than their neighbours'. This characteristic of crop surviving dry conditions longer could well lead to higher yields in dry years on organic farms relative to those on conventional farms. In wet years this trend could well be reversed due to the fact that nutrient availability may be the limiting factor.
Table 2: Yields and returns on organic and conventional farms in south-eastern Australia: 1985-86

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<tbody>
<tr>
<td>Wheat yield (t/ha)</td>
<td>2.4</td>
<td>2.5</td>
<td>-0.1</td>
<td>n.s.</td>
</tr>
<tr>
<td>Stock output ($/ha operated)</td>
<td>45.2</td>
<td>35.4</td>
<td>9.8</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Note: statistically significant difference calculated with the paired Wilcoxon test:

n.s. = not significant at 90 per cent confidence level.

Years in which the conditions described above would not be valid is in extremely dry or wet years. For example, in years with a total drought (as in 1982-83) many farmers did not have a crop to harvest. In 1992-93 an extremely wet growing season was experienced. One organic farmer who estimated to have close to 3 tonnes per hectare (a high yield for that area) reported that his neighbour probably harvested twice as much. However, this situation was very exceptional, as the highest yield recorded in the relevant local government area between 1945 and 1980 was 2.4 tonnes per hectare.

For those pairs of farms for which enough data were available the standardised yield on the conventional farm (the yield expressed as a proportion of the highest yield achieved on that farm) was plotted on the horizontal axis. The yield on the organic farm relative to that on the conventional counterpart farm for a given year was plotted on the vertical axis. Identical yields in the two management systems would result in a horizontal line at 1.0. A downward sloping curve would be consistent with high yields on the organic farm relative to that on the conventional farm (vertical axis) in years of low yields on conventional farms (horizontal axis). As the limiting factor in most years is dry conditions, such a situation would be consistent with less variability on the organic farms. If the climatic conditions become too dry, crops are not viable in either system. A cut-off point in yields, below which level differences are not present, should therefore be expected.

Sufficient data were available from four pairs of farmers. Data were taken from the sixth year after transition, to exclude possible negative effects during that period. The year 1982-93 was excluded, since this was a year of major drought for most farmers.

The data of the four organic farmers were combined in one series, and those of the conventional counterparts in another, to arrive at an aggregate level. This gave 43 observations, of which three were outliers. In those three cases the standardised yield was low (less than 0.4) compared with the other observations. This point could be considered the cut-off point, below which it was too dry to differentiate yields on organic or conventional farms.

Regression analysis was used to determine a trend in the data. The best fit of the curve is the quadratic function: $y = 4.65 - 8.59x + 4.84x^2$ (see Figure 1), with an adjusted $R^2$ of 0.410. This means that 41 per cent of the total variation between the two yields can be explained by the seasonal conditions. It indicates that the yields on organic farms increase as a proportion of conventional yields as conventional yields decrease. This means that the yields on organic farms...
decrease less than on conventional farms in years with dry weather conditions.

In summary, although the data are not such that firm conclusions can be drawn, indications are that wheat yields are less variable on organic farms as compared to those obtained under conventional management.

5. **Farm financial performance**

In general, organic farmers would, after the pasture phase, cultivate their land and plant a cereal crop, often wheat. In the winter-dominant rainfall areas most farmers in the survey grew another grain for one or two more years after the initial crop. This grain might be wheat, barley, oats or rye, depending on the state of the paddock (in connection with moisture content and weeds) and expected state of the market. In the summer-dominant rainfall areas (in Queensland and northern New South Wales) summer crops can be grown, making the rotation system considerably more flexible and complicated.

In Table 3 the input costs on organic and conventional farms on a per hectare cropped basis are displayed. The inputs listed in Table 3 are used mainly, but not exclusively, in the cropping phase. Fertilisers (which also includes soil nutrients allowed under organic management such as rock phosphate) are mainly applied in the cropping phase, but might benefit growth of the pasture in later years. Pesticides (also encompassing materials allowed under organic standards) are used mainly, but not exclusively, on stock. Fuel is used, apart from in cropping activities such as ploughing, planting and harvesting, for checking stock in the paddocks and for marketing animals. Most of the machinery and equipment is employed in cropping.

On the organic farms, expenditure on fertilisers was relatively low, and on pesticides negligible. Pesticides used were mainly in the area of livestock.

Contrary to expectation, there was no significant difference in use of fuel on organic and conventional farms. This may reflect the greater role of livestock in the rotation requiring less cultivation of land to be cropped.
Table 3: Input use on organic and conventional farms in South-eastern Australia ($ per hectare cropped): 1985-86

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Fertilisers</td>
<td>9</td>
<td>27</td>
<td>-18</td>
<td>**</td>
</tr>
<tr>
<td>Pesticides</td>
<td>1</td>
<td>18</td>
<td>-17</td>
<td>***</td>
</tr>
<tr>
<td>Fuel</td>
<td>35</td>
<td>33</td>
<td>2</td>
<td>n.s.</td>
</tr>
<tr>
<td>Machinery</td>
<td>89</td>
<td>101</td>
<td>-12</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Note: statistically significant difference calculated with the paired Wilcoxon test:

*** = significant at 99 per cent confidence level
** = significant at 95 per cent confidence level

Costs per hectare operated are shown in Table 4. Differences between Tables 3 and 4 reflect the longer rotations of organic farmers. With the exception of interest and labour, all inputs are used less in organic than in conventional agriculture.

Returns to farming are calculated according to the measures used by the Australian Bureau of Agricultural and Resource Economics (ABARE). Those measures include the total cash costs (TCC), total cash receipts (TCR) and the farm cash operating surplus (FCOS; which equals TCR minus TCC).

Table 4: Input use on organic and conventional farms in South-eastern Australia ($ per hectare operated): 1985-86

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</thead>
<tbody>
<tr>
<td>Fertilisers</td>
<td>3</td>
<td>19</td>
<td>-16</td>
<td>**</td>
</tr>
<tr>
<td>Pesticides</td>
<td>0</td>
<td>14</td>
<td>-14</td>
<td>***</td>
</tr>
<tr>
<td>Interest</td>
<td>5</td>
<td>16</td>
<td>-11</td>
<td>n.s.</td>
</tr>
<tr>
<td>Fuel</td>
<td>12</td>
<td>21</td>
<td>-10</td>
<td>**</td>
</tr>
<tr>
<td>Mach. &amp; Equipment</td>
<td>31</td>
<td>74</td>
<td>-42</td>
<td>*</td>
</tr>
<tr>
<td>Labour</td>
<td>35</td>
<td>41</td>
<td>-6</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Note: statistically significant difference calculated with the paired Wilcoxon test:

*** = significant at 99 per cent confidence level
** = significant at 95 per cent confidence level
*  = significant at 90 per cent confidence level

Table 5 shows that the organic farmers had lower TCC than their conventionally farming neighbours, while no statistical difference could be shown for the TCR and the FCOS.

The measures discussed so far include only the cash costs and returns, and don't take into account...
the change in stock (both crop and livestock), the decrease in value of capital items such as machinery (depreciation), and payments for family labour. If values for these factors are deducted, the resulting income (which could be considered the return to capital and management), is also similar for the organic ($37) and the conventional farmers ($21).

If the same measure is taken as a percentage of capital invested (in land, improvements, machinery and livestock), the organic farmers had, on average, a return of 3.0 per cent in 1985-86, while the conventional farmers had a return of 1.2 per cent, which statistically was not different.

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<tbody>
<tr>
<td><strong>Cash Returns and Costs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total Cash Receipts</td>
<td>181</td>
<td>262</td>
<td>-81</td>
<td>n.s.</td>
</tr>
<tr>
<td>Total Cash Costs</td>
<td>76</td>
<td>128</td>
<td>-52</td>
<td>**</td>
</tr>
<tr>
<td>Farm Cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Surplus</td>
<td>105</td>
<td>134</td>
<td>-28</td>
<td>n.s.</td>
</tr>
<tr>
<td><strong>Returns to Capital and Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ per ha operated</td>
<td>37</td>
<td>21</td>
<td>16</td>
<td>n.s.</td>
</tr>
<tr>
<td>% of cap. invested</td>
<td>3.0</td>
<td>1.2</td>
<td>1.7</td>
<td>n.s.</td>
</tr>
<tr>
<td><strong>Adjusted Returns to Capital and Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ per ha operated</td>
<td>42</td>
<td>37</td>
<td>5</td>
<td>n.s.</td>
</tr>
<tr>
<td>% of cap. invested</td>
<td>3.4</td>
<td>2.2</td>
<td>1.2</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Note: statistically significant difference calculated with the paired Wilcoxon test:
- n.s. = not significant at 90 per cent confidence level
- ** = significant at 95 per cent confidence level

The returns to capital and management include interest costs and rent for the farm. In order to compare the financial aspects of farming itself, the cost of interest and rent were deducted from the total cost of farming. These 'adjusted' figures showed no difference between the groups of organic and conventional farmers ($42 and $37 per hectare operated, and 3.4 and 2.2 per cent per capital invested, for organic and conventional farms respectively). Interest deductions for conventional farmers are greater than for organic farmers, which results in adjusted returns of those farmers closer to those of organic farmers.

It is sometimes suggested that the viability of organic farms depends on the higher prices received for produce relative to conventional prices. An attempt was made to obtain some indication of the influence of prices on the viability of the surveyed farms. For that purpose financial returns were calculated assuming average conventional prices for the major crop, wheat. That is, premiums received for wheat produced under organic farming conditions were disregarded.
In Table 6 the same financial measures are shown as in Table 5 for the adjusted returns to capital and management. The difference is that these are calculated with conventional wheat prices. As can be expected, figures show a decrease in financial benefits for the organic farmers from $42 to $31 per hectare operated. This results in a decrease in the gap between the two groups of farmers of the included variables. Also here, no statistical difference can be shown.

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<tbody>
<tr>
<td>$ per ha operated</td>
<td>31</td>
<td>35</td>
<td>-4</td>
<td>n.s.</td>
</tr>
<tr>
<td>% of cap. invested</td>
<td>2.5</td>
<td>2.2</td>
<td>0.3</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

Note: statistically significant difference calculated with the paired Wilcoxon test: n.s. = not significant at 90 per cent confidence level

An issue in comparing financial performance of organic and conventional farmers is the prices of crops relative to livestock and livestock products for 1985-86, as compared to other years. Since organic farmers are likely to have more livestock and less crop than conventional farmers, relative movements of the prices of the different enterprises can be important in determining relative profitability. In Table 7 the indexes of prices received by farmers in Australia are shown. From 1982-83 to 1986-87 the ratio of prices for wheat, the main crop on most surveyed farms, to prices for livestock and livestock products decreased considerably. In 1985-86 the ratio was similar to that of the two previous years, but higher than of the two following years.

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<tbody>
<tr>
<td>Wheat</td>
<td>114</td>
<td>106</td>
<td>111</td>
<td>109</td>
<td>95</td>
<td>106</td>
</tr>
<tr>
<td>Livestock Sector</td>
<td>103</td>
<td>111</td>
<td>119</td>
<td>119</td>
<td>134</td>
<td>165</td>
</tr>
<tr>
<td>Wheat/Livestock</td>
<td>1.11</td>
<td>0.95</td>
<td>0.93</td>
<td>0.92</td>
<td>0.77</td>
<td>0.64</td>
</tr>
</tbody>
</table>


This means that, if the analysis had been carried out on data for the two years previous to 1985-86, relative financial benefits for the two groups of farmers would not have differed from relative benefits in 1985-86 on account of output prices. However, in 1986-87 and 1987-88 prices for livestock increased absolutely and relative to wheat prices. This would benefit the organic farmers in general more than the conventional farmers, increasing the profitability of organic farming absolutely and relative to that of conventional farming in comparison with 1985-86.
6. **The marketing of organic produce**

In 1985-86 organic grains were mainly sold in speciality shops, and directly from farmer to customer. Farmers who wanted to sell their grains as organic had to develop their own market. In addition they encountered institutional impediments up until 1989.

In summary, these institutional problems were as follows. All wheat in Australia had to be sold to the Australian Wheat Board (AWB). With the exception of 2-3 million tonnes which is used for domestic consumption, most of Australia's wheat (between 8 and 16 million tonnes) is exported. The AWB did not have storage, nor had developed markets, for organic wheat. This meant that the only way in which organic farmers were able to receive a premium for their produce was by selling the wheat to the AWB, buying it back, and then, with a permit, selling it in their own market. The farmer had to pay for this 'transaction' with the AWB, during which the wheat did not leave the farm. The exact cost depended on in which state the farmer lived and on what value was put on certain services. It ranged between $18.80 and $38.80 per tonne in 1986-87 (for a more detailed explanation of the issue, see Wynen (1989b)). This was as compared to the net pool price (the price received for wheat sold via the AWB) of $95.74 per tonne in that year.

In 1985-86, of the eight organic farmers three sold all their wheat to the AWB as conventional wheat, without receiving premium prices. Two farmers sold all their wheat for a premium, and three sold some wheat for a premium and some in the conventional market.

Those organic farmers who sold their produce as conventional wheat received an average price of $132 per tonne, and their conventional farmer neighbours $129 per tonne. This indicates that, on average, the quality of the wheat, as defined by the AWB, on the two types of farms was similar.

The average wheat price for the two organic farmers who sold all their wheat for a premium was $197 per tonne. Their neighbours received an average of $125 per tonne. The organic farmers looked after their own marketing.

Since 1989 the 'Wheat Marketing Act 1984', which caused these institutional impediments to the marketing of organic wheat (similar acts have been in operation since 1948), was changed. The new act allowed domestic trading of wheat without interference from the AWB, while export licences can be supplied by the AWB to potential exporters of wheat without a financial disincentive such as that present in the 1984 Act.

In the early 1990s two large companies became interested in the market, dealing mainly with breakfast cereals, cake flour and feed. Although these markets are still rather small at present (less than 20,000 tonnes of wheat and 2,000 tonnes of oats), it is likely that they will grow in the future.
References

ABARE (1989), Indexes of Prices Received and Paid by Farmers, Australian Government Publishing Service, Canberra.


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