Labour use in Australian agriculture

Analysis of survey results

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Labour use in Australian agriculture: Analysis of survey results

Introduction

Labour is a key input to Australian agriculture, and there is significant interest in understanding the extent to which labour markets are meeting the needs of the Australian farm sector. This interest has recently been heightened by the COVID-19 pandemic, which has resulted in a reduction in the availability of farm workers from overseas and placed restrictions on the movement of people within Australia.

Statistics from the latest Australian Bureau of Statistics (ABS) Labour Force Survey (LFS) indicate that the Australian agriculture, fisheries and forestry sector employed 3,250,000 people on average over 4 quarters to August 2021, with the horticulture and broadacre (livestock and cropping) industries accounting for the vast majority of workers. However, the ABS LFS only accounts for the Australian resident civilian population and is therefore an underestimate of total agricultural employment due to the significant number (>35,000) of overseas workers employed on farms. Other publicly available data sources also have limitations on coverage and detail, as outlined in Australian agricultural workforce: Stocktake of data sources.

ABARES has been surveying farmers about their labour use (including Australian residents and overseas workers) for several years. In 2021, data describing the use of labour on farms and the profile of farm workers has been collected through ABARES Horticulture labour force survey, with 2021 data for broadacre and dairy farms to be published in 2022. The horticulture data was collected through telephone surveys, conducted on behalf of ABARES by Lighthouse Data Collection. The survey results are based on a weighted sample of 3,429 horticulture farms across Australia, selected at the region and industry level to be representative of the total population of 10,403 farms.

Results from ABARES labour surveys are presented in this publication using a data visualisation product. Users can select from a range of region and industry options to observe trends in labour use in 2018–19, 2019–20 and 2020–21, and the profile of the agricultural labour force in those years.

How to use this data visualisation

1) Choose between the different tabs shown along the bottom of the data visualisation.

2) In the tabs, select the desired fields — from industry, State/Territory, region, and year options. When selecting between regions across different states/territories, select ‘All’ in the region field and then re-choose the relevant state/territory field.

3) Download the data showing in the visualisation by clicking the ‘Download Data’ button in each tab. For more information on the results and definitions of items, click the ‘More information’ button in each tab.

The PowerBI dashboard may not meet accessibility requirements. For information about the content of this dashboard contact ABARES.
The impact of COVID-19 on the horticulture workforce

The effects of COVID-19 on the Australian agricultural workforce have been most directly felt in the horticulture sector. A particular concern in the short term is the extent to which labour markets can adapt to the restrictions associated with measures put in place to control the spread of COVID-19 and therefore whether horticulture producers will have access to sufficient seasonal workers to harvest crops and conduct other labour-intensive farm operations.

ABARES latest forecasts for horticulture production and prices are contained in the September edition of Agricultural Commodities. These forecasts reflect the current understanding of the agricultural labour market and the responses producers made to the changed availability of farm workers in 2020–21, particularly those from overseas.

ABARES survey data indicates that the total number of workers used by Australian horticulture farms declined around 8% (11,100 workers) from 2019–20 to 2020–21. The survey results breakdown the number of workers used on a monthly basis and then an annual figure is calculated as a year-round average. The decline in 2020–21 was mainly due to a reduction in the number of seasonal Working Holiday Makers (WHMs). The total number of workers from the WHM scheme and from other overseas visa programs (see WHM/other ovs. in the data visualisation) used on farms declined by around 26% (9,800 workers) from 2019–20 to 2020–21, as a year-round average. The total number of workers from the Pacific Australia Labour Mobility (PALM) schemes — the Seasonal Worker Programme and Pacific Labour Scheme, referred to in the data visualisation as PALM workers — used on horticulture farms is estimated to have declined by around 9% (800 workers) from 2019–20 to 2020–21. The total number of Australian resident workers used on horticulture farms remained relatively steady over the period, however for many farms it is likely that this cohort, along with family workers, increased their hours worked per month in order to maintain production levels.

Despite the decline in the number of workers used on horticulture farms in 2020–21, overall horticulture output levels are estimated to have remained relatively steady primarily due to an improvement in seasonal growing conditions relative to the previous season. Output has also been maintained through a range of adaptations that many horticulture producers made to the reduced availability of overseas labour, including increasing the hours worked by the existing workforce, altering production systems and by employing more Australians and overseas residents already in Australia — incentivised by government labour market initiatives (see Box 1). For example, some producers have streamlined labour roles and increased labour productivity while others have altered crops plantings to lengthen the peak harvest period.
Box 1 Australian Government labour market initiatives

- Encouraging Australians to take up farm work through AgMove and an accelerated pathway to access Youth Allowance (Student) and ABSTUDY between 1 November 2020 and 30 September 2021, there were 5,619 agreements under AgMove. Of these AgMove agreements, 1,561 (28%) were entered by Australians and 4,058 (72%) by eligible visa holders.
- Providing visa extensions and additional flexibility to encourage temporary visa holders already in Australia to work in agriculture.
- Reopening the programs under the Pacific Australia Labour Mobility (PALM) scheme which has seen over 12,500 seasonal workers enter the country since September 2020 and committing to double the number of Pacific workers in Australia by March 2022.
- Delivering an Agriculture Workers’ Code to facilitate the movement of agricultural workers across state and territory borders.
- Introduction of the Australian Agriculture visa. The announcement delivers on the government’s commitment to put in place a broad ranging visa to support the long-term future of Australia’s agricultural and primary industries. Amendments to the Migration Regulations 1994 to enable the new visa were agreed on 30 September 2021. The first workers will arrive in Phase 1 from late 2021, subject to quarantine arrangements and agreement with partner countries.

Many of the farm-level adaptations to reduced worker availability may not be sustainable into the future, for example delaying tasks such as pruning and maintenance. ABARES September quarter horticulture market analysis found retail prices for fruit and vegetables increased beyond the levels typically seen at that time of year, indicating supply may be lower than usual or increased costs of labour are being passed through to consumers.

In 2020–21, horticulture producers indicated the decline in the number of workers used on farm was mainly a result of the reduced availability of overseas workers, although a tighter local labour market with impeded interstate mobility in some areas and seasonal conditions were also important factors. For example, the impact of Cyclone Niran significantly reduced banana yields 2020–21. This meant fewer workers than usual were required for the banana harvest.

Horticulture farms typically rely on a mix of overseas workers in their peak labour use period, consisting primarily of WHMs and PALM workers. Horticulture farms also use a small number of overseas workers from other sources, such as those employed through the Temporary Skills Shortage visa. From January 2020 to October 2021, the number of WHMs in Australia declined by 80% from 141,000 people to around 29,000 people (Figure 1). ABARES estimates that around 25–30% of all WHMs were employed in horticulture before COVID-19.

ABARES survey data indicates that the reduced number of workers used on horticulture farms in 2020–21 compared with 2019–20 occurred on a relatively small proportion of farms (20%), with the remainder of farms using either approximately the same (75%) or more workers (5%). The reduction in the number of workers used varied by farm size and region.
Figure 1 Overseas workers in Australia, Working Holiday Makers and Pacific Australia Labour Mobility, Jan 2020 to Oct 2021

Note: Not all Working Holiday Makers are employed and not all work in horticulture. ABARES estimates that, based on Single Touch Payroll data, before COVID-19 around three quarters of Working Holiday Makers were employed and 20–25% were employed on horticulture farms. The vast majority of PALM workers are typically employed on horticulture farms. Source: Department of Home Affairs and Department of Education, Skills and Employment.

By farm size
The reduction in the number of workers used in 2020–21 was primarily among larger horticulture farms. Table 1 divides horticulture farms into 4 size quartiles based on number of workers used, with the largest farms (quartile 4) accounting for the vast majority of the total horticultural farm workforce. From 2019–20 to 2020–21, the total number of workers used on the largest quarter of horticulture farms declined by 9% (9,700 workers), accounting for most of the overall decline in the horticultural labour force (11,100 workers). In addition, a relatively high proportion (62%) of large farms reported experiencing more recruitment difficulty in 2020–21. Small farms primarily rely on family and permanent workers for farm labour, with this labour pool not as affected by the measures put in place to control the spread of COVID-19 compared to the availability of contract workers.
Table 1 Horticulture farm labour use, by farm size quartile, Australia, 2019–20 to 2020–21

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Labour use quartile 1</th>
<th>Labour use quartile 2</th>
<th>Labour use quartile 3</th>
<th>Labour use quartile 4</th>
<th>All farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of farms</td>
<td>no.</td>
<td>2,601</td>
<td>2,548</td>
<td>2,749</td>
<td>2,505</td>
<td>10,403</td>
</tr>
<tr>
<td>Average per farm labour use 2020–21, year-round average</td>
<td>no. workers</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>37</td>
<td>13</td>
</tr>
<tr>
<td>Total labour use 2019–20, year-round average</td>
<td>no. workers</td>
<td>6,000</td>
<td>12,000</td>
<td>24,900</td>
<td>103,300</td>
<td>146,200</td>
</tr>
<tr>
<td>Total labour use 2020–21, year-round average</td>
<td>no. workers</td>
<td>6,100</td>
<td>11,800</td>
<td>23,600</td>
<td>93,600</td>
<td>135,100</td>
</tr>
<tr>
<td>% Change in total labour use, 2019–20 to 2020–21</td>
<td>% Change</td>
<td>2%</td>
<td>–2%</td>
<td>–5%</td>
<td>–9%</td>
<td>–8%</td>
</tr>
<tr>
<td>% Farms reducing labour use, 2019–20 to 2020–21</td>
<td>% Farms</td>
<td>6%</td>
<td>17%</td>
<td>24%</td>
<td>34%</td>
<td>20%</td>
</tr>
<tr>
<td>% Farms with more recruitment difficulty, 2020–21</td>
<td>% Farms</td>
<td>39%</td>
<td>52%</td>
<td>55%</td>
<td>62%</td>
<td>52%</td>
</tr>
</tbody>
</table>

Note: Labour use quartiles measured by farm labour use, year-round average. Number of workers rounded to the nearest whole number.
Source: ABARES Horticulture labour force survey

By region

The total number of workers used on horticultural farms declined in all jurisdictions from 2019–20 to 2020–21. ABARES survey data indicates that percentage declines were greatest in the Northern Territory (–15%) and Queensland (–11%), modest in Victoria (–8%), NSW (–7%) and Western Australia (–7%) and small in South Australia (–3%) and Tasmania (–2%). The data visualisation presents ABARES labour survey data at the national, state/territory and regional scale.

The impact of COVID-19 in 2021–22

Horticulture producers are likely to continue to face workforce challenges in 2021–22, while large-scale international travel and migration to Australia remain constrained. Initiatives to improve the availability of workers in horticulture are underway, including increasing the number of PALM workers able to enter Australia, introducing the Australian Agriculture Visa and expanding measures to encourage greater participation in agriculture by local Australian workers. Smaller farms, which adjusted well on average to reduced worker availability in 2020–21, may find securing a sufficient workforce at harvest time more difficult in 2021–22. This is because employing PALM workers can be difficult for smaller businesses due to the long-term planning, logistical and upfront costs involved.

In the broadacre and dairy sectors, the impacts of COVID-19 on labour markets are expected to be less visible because these farms typically use far fewer overseas workers. In 2018–19, ABARES survey data indicates that broadacre and dairy farms combined used around 2,800 contract workers from overseas at peak, well below estimates for horticultural farms. Restrictions on the movement of people within Australia, particularly at harvest time for broadacre farms, may impact the ability of some producers to maintain production.
Horticulture farm labour use

ABARES survey data indicates that horticulture farms used around 135,100 workers on average over the course of 2020–21, including family, permanent and contract employees. Total farm labour use varied from a low of around 126,000 workers in Winter and early Spring to a peak of 146,300 workers in Summer and early Autumn. The seasonal variation in total employment reflects the timing of relatively labour-intensive operations such as planting and harvest. Variation in the number of workers used on farms is driven by changes in the use of contract workers (often known as seasonal workers).

Horticulture farm workforce characteristics

ABARES survey data quantifies various aspects of the horticultural farm workforce — national average results are summarised here — and region-specific data are available through the data visualisation product.

- The majority of workers used on Australian horticulture farms during peak periods are unskilled (40%) or semi-skilled (23%). Many tasks performed on horticulture farms during peak periods such as harvest are manual operations that require relatively little formal education or experience. Other significant occupations include skilled workers (15%), managers (9%) and machinery operators (8%).
- Around two thirds of workers (67%) used on horticulture farms are primarily paid by an hourly wage, with 33% paid using piece rates. Employment arrangements vary significantly between regions, reflecting the types of crops produced and broader labour market conditions.
- Most workers (58%) on horticulture farms are male.
- Around half (52%) of contract horticultural workers are employed through labour hire firms — this employment arrangement accounted for approximately 52,000 horticulture workers at peak in 2019–20.
- Around half (48%) of PALM workers on horticulture farms are returning workers from previous years. ABARES research has found that the productivity of returning seasonal workers is 15% higher on average than that of first-time workers.

Workers from overseas are an important source of labour at peak period

Workers from overseas were a significant source of seasonal labour on horticulture farms throughout 2020–21 (averaging 36,200 workers per month). The availability of relatively large numbers of workers for short periods is important for performing labour-intensive operations on many horticulture farms. A range of horticulture crops are harvested only once a year, and in some regions harvest of certain crops occur only over a number of weeks. The relatively brief period for which labour-intensive activities occur on horticulture farms fits relatively well with the availability of many overseas workers, which is often short term rather than year-round.
Seasonal labour use varies significantly across regions

There are significant differences across states in the use of contract labour, and in the seasonal pattern of labour use, reflecting the areas of crop types present and the timing of relatively labour-intensive processes. The number of workers from overseas employed on horticulture farms increased significantly from a low of 30,600 workers in winter months to a peak of 42,400 in summer months of 2020–21. These shifts are largely explained by the timing of harvest for key crops across different regions in Australia.

Reliance on contract labour from overseas is highest in regions with high volumes of horticultural production and a range of seasonal crop types. This includes regions in south-east Queensland, such as the important vegetable producing regions around Toowoomba and Wide Bay. The North West and Shepparton regions in Victoria are another with a range of vegetable crops, wine grapes, almonds, citrus and pome fruit and includes large areas of table grapes — a crop that requires large numbers of pickers and packers for relatively short periods.

Regions differ significantly in the extent to which overseas workers are used throughout the year and during key harvest periods. For example, horticulture farms in Wide Bay typically employ a relatively large number of overseas workers. This reflects the significant amount of horticulture production that occurs in this region, the relatively wide range of crops produced (and hence the relatively spread-out period during which key labour-using processes such as harvest are occurring) and the relatively large number of people from overseas that visit Wide Bay for tourism.

In contrast, while the North West region in Victoria also accounts for a relatively large share of national horticulture production value and is a major employer of overseas workers, the pattern of overseas labour use is quite different. Farms in this region primarily used workers from overseas in a relatively limited period from January to March in 2020–21, during the peak harvest period for crops such as table grapes and fruit. A similar situation applies in other regions in southern Australia that use a relatively large number of overseas workers for relatively short periods – such as Bunbury in Western Australia and the South East region in Tasmania.
Broadacre and dairy farm labour use

Broadacre farms are the largest employers in Australian agriculture. ABARES survey data — shown in the data visualisation product — indicates that broadacre farms used an average of 159,300 workers across 2018–19. Broadacre farms include sheep, beef, cropping and mixed farms, totalling around 62% of Australian farm businesses. Dairy farms used an average of 24,100 workers over the course of 2018–19 — more recent labour use data for broadacre and dairy farms will be added to the data visualisation product in 2022.

Employment on broadacre farms tends to be relatively stable from year to year compared with horticulture farms, reflecting the structure of these businesses and the roles typically performed by workers. Broadacre farms make greater use of family members and local workers who are typically employed as full time or part time workers throughout the year and employ relatively few contractors and casual staff. The wide geographical spread of the sector across Australia also means peak periods such as crop sowing and harvest are somewhat more dispersed than for the horticulture sector.

Dairy farms employ mainly Australian workers and total employment was relatively consistent over the course of 2018–19, with minimal monthly variation compared to total employment on broadacre and horticultural farms.

ABARES survey data indicates that the majority of workers used on Australian broadacre farms during peak periods are skilled (51%) or managers (30%), with the remainder occupying semi-skilled, unskilled, administrative or professional roles such as lawyers and tradespeople. The majority of workers used on dairy farms are skilled (37%) or managers (37%), with the remaining proportion of semi-skilled and unskilled workers slightly higher than for broadacre farms in 2018–19.