

Rural Migration News

Blog 276

MAY 2022

Australian Agriculture and Labor

Australia is a large country with a relatively small labor-intensive agricultural sector that produces fruits and vegetables for 25 million residents. The red dots on the map indicate areas with horticultural commodities, many of which are in the coastal areas where most residents live.

Farm sales of A\$75 billion (US\$55 billion) between July 2020 and June 2021 included 50 percent from crops led by wheat (14 percent of farm sales), 42 percent from livestock led by cattle and calves (17 percent), and seven percent from fisheries and forestry commodities. The A\$12 billion worth of fruits and nuts (seven percent of farm sales), vegetables (six percent), and other horticultural commodities were 16 percent of Australia's farm sales.

California farm sales of \$50 billion a year, by contrast, are dominated by fruits and nuts, \$21 billion, vegetables, \$8 billion, and floriculture and other commodities, \$6 billion, making California horticultural crops worth \$35 billion or 70 percent of the state's farm sales. California is only about five percent as large as Australia, but produces fruits and

vegetables for 330 million US residents and more abroad.

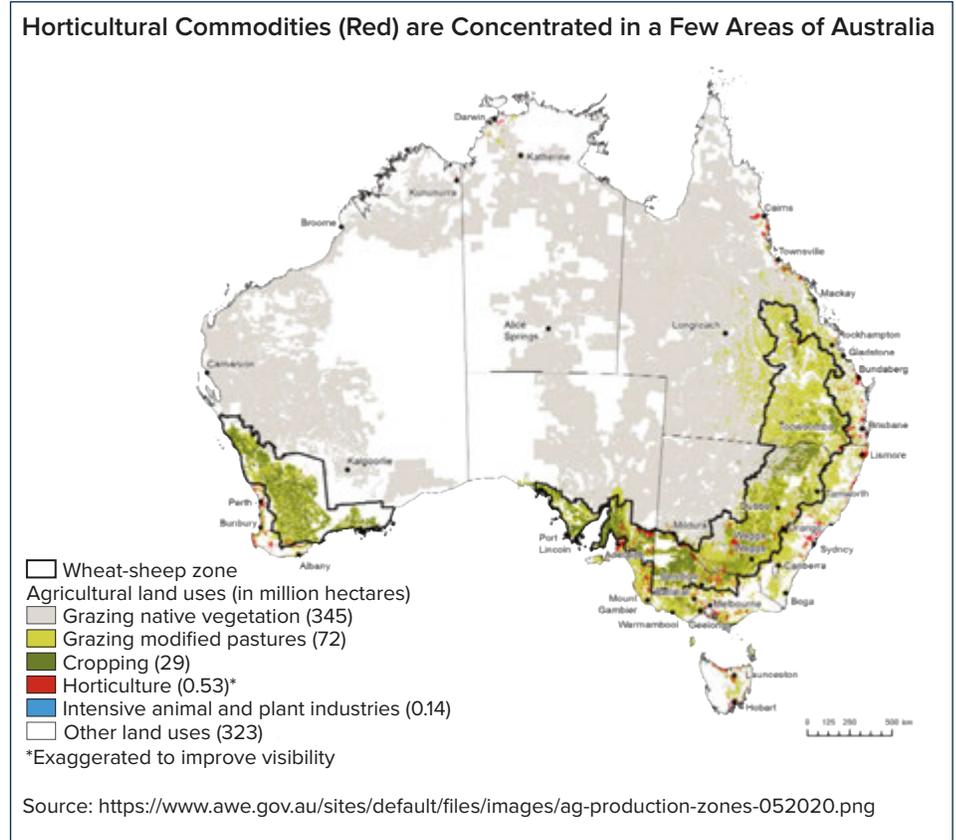
Structure

Australia has almost 88,000 farms with sales of at least A\$40,000 a year, including two-thirds that raise livestock, a quarter that produce

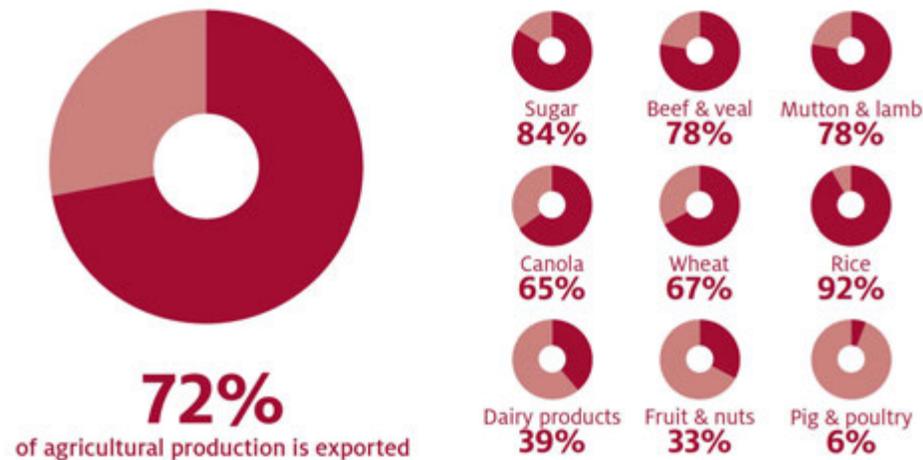
crops, and 10 percent dairies. Farming in Australia is an 15-60 sector, meaning that the 13,000 or 15 percent of farms with annual sales of A\$1 million or more account for 60 percent of the value of Australia's farm output in 2019-20.

US and California farm production is more concentrated on large farms. The five percent of US farms with sales of \$1 million or more accounted for 60 percent of the value of US farm output in 2020. California had 70,000 farms in 2017, and the 3,100 or four percent that each had sales of \$1 million or more accounted for \$40 billion or 90 percent of the state's \$45 billion in farm sales.

Australia exports almost three fourths of its farm commodities by value, including over two-thirds of commodities that range from rice and sugar to beef and wheat, and sends these commodities to China, Japan, and other Asian countries. In some cases, most Australian



Australia Exports 72% of its Farm Production by Value



Source: <https://www.awe.gov.au/sites/default/files/images/ag-snapshot-2022-10-01.jpg>

exports go to one country, as with the 90 percent of Australian wool that goes to China. A third of the fruits and nuts produced in Australia are exported.

California exports 40 percent of its farm commodities by value, led by \$5 billion worth of almonds, \$2 billion worth of pistachios, \$2 billion worth of dairy products, and over \$1 billion each of wine and walnuts. California's major farm exports are not labor intensive. The most important labor-intensive exports include table grapes, whose

exports are worth \$750 million a year, oranges, \$500 million, strawberries, \$400 million, and lettuce, \$300 million. Most of California's labor-intensive exports go by truck to neighboring Canada and Mexico.

Policy

Australia is the driest inhabited continent, and rising temperatures and reduced rainfall may curb the production of some farm commodities, especially in western Australia. The government provides limited support to farmers, contributing

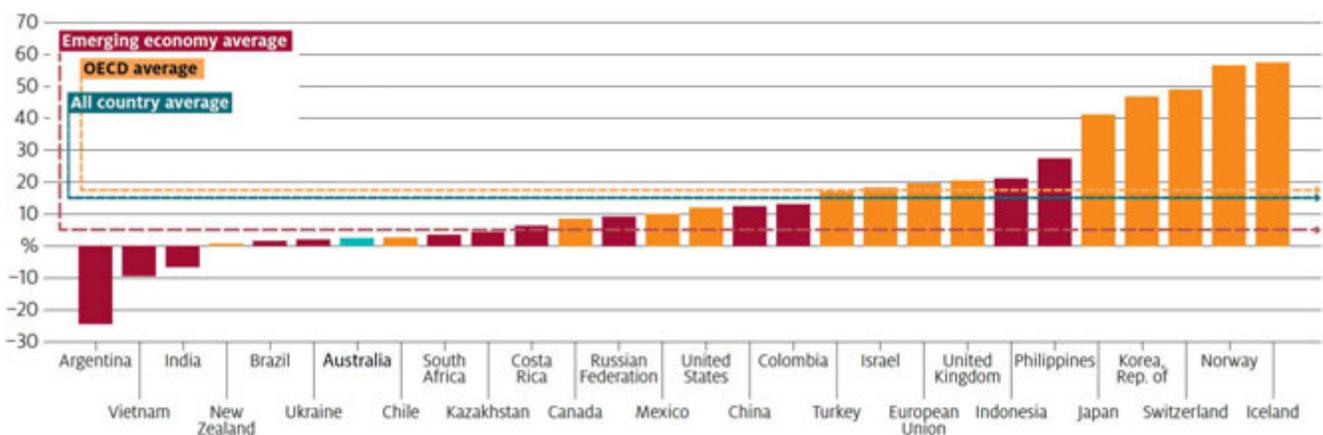
about three percent of gross farm receipts, below the average 15 percent government support for farmers in OECD countries. Note that Argentina taxes farmers with taxes on farm exports.

US farm subsidies are concentrated in the Big 5 crops, corn, soybeans, wheat, cotton, and rice. The government provides subsidized insurance to protect growers of these commodities from low prices, subsidizes the export of these commodities, and often makes ad hoc payments in the event that natural disasters or trade conflicts disrupt production or reduce prices. Fruit and vegetable producers are eligible for crop insurance and export promotion funds, but most government support to horticulture is indirect, as with water projects that provide irrigation water at low prices or the toleration of unauthorized migration that reduces farm wages.

Horticulture

Australia's production and exports of fruits and vegetables rose over the past two decades. Australia is relatively self-sufficient in fruits and vegetables; fewer than two percent of the fruits and vegetables con-

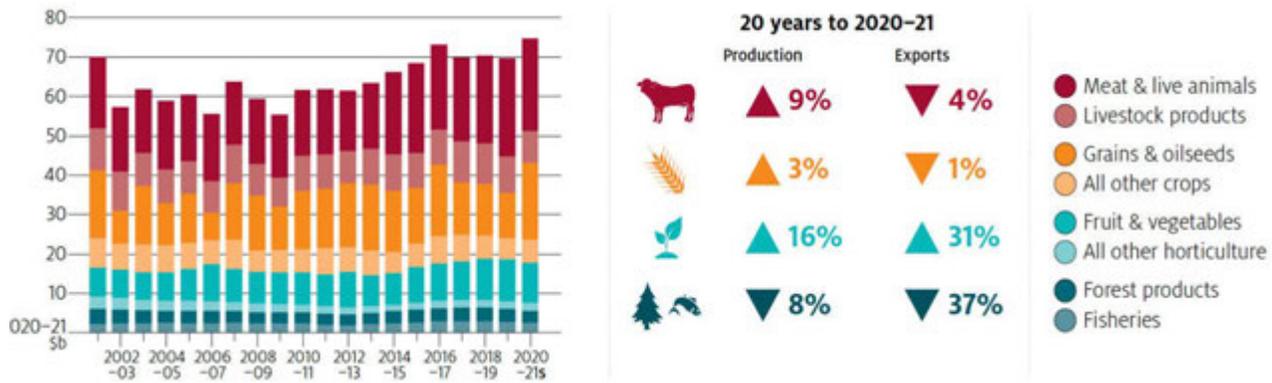
ANZ Governments Provide Relatively Little Support PSE to Farmers



Note: The all-country average includes all OECD countries, non-OECD EU Member States, and the 13 Emerging Economies. The OECD average does not include the non-OECD EU Member States. The 13 Emerging Economies include Argentina, Brazil, China, Colombia, Costa Rica, India, Indonesia, Kazakhstan, the Philippines, Russian Federation, South Africa, Ukraine and Vietnam.

Source: <https://www.awe.gov.au/sites/default/files/images/ag-snapshot-2022-16-01.jpg>

Fruit and Vegetable Production is 1/6 of Australian Farm Sales; Exports (Blue) have Been Rising



Source: <https://www.awe.gov.au/abares/products/insights/snapshot-of-australian-agriculture-2022#agricultural-production-is-growing>

NZ Exports 2/3 of its Horticultural Products, Versus Less than 10% for Australia

Horticulture products by country					
	Australia	New Zealand	U.S.	Philippines	Brazil
Estimated total quantity produced	c.7Mt	c.5.2Mt (c.1.4Mt fruit c. 3.8Mt vegetables)	c.55-65MT	c.30-40Mt	c.50-60Mt
Estimated direct export %	c.7%	c.66%	c.10-20%	c.34%	<c.5% (excl. fruit juices)
Potential produce groups to compare	Potatoes, tomatoes, bananas, melons, oranges, mangos	"table staples" e.g. potatoes, tomatoes, carrots, onions	"table staples", citrus and berries	Tropical fruits (e.g. bananas, mangos, pineapples)	Citrus, tropical fruits (e.g. bananas, mangos, pineapples)
Mode of transport	Mainly road and rail	Mainly road	Mainly road and rail	Road	Mainly road and rail
Data availability / feasibility for deep dive	Industry data available	High proportion of exports, could compare staples	Good data availability from U.S. department of agriculture, should focus on particular state (e.g. Florida)	Mixed data availability	Mixed data availability

Source: <https://www.freightaustralia.gov.au/sites/default/files/documents/sectoral-report--horticulture.pdf>

sumed in Australia are imported, while seven percent of the fruits and vegetables produced in Australia are exported. Nuts raise the value of horticultural exports.

Australia produces about seven million metric tons of horticultural commodities a year, including nuts, the most valuable horticultural commodities per pound. Of the 500,000 tons of horticultural commodities that are exported, oranges are a third and grapes 30 percent by weight. More valuable almonds (50,000 tons) and macadamias (15,000 tons) are only a seventh of horticultural exports by weight.

Labor

An average 318,000 people were employed in Australian agriculture in 2020-21, excluding some foreign workers who may not be captured in the labor force survey. The total number of persons employed in agriculture is larger due to seasonality and turnover. Capturing this total number is difficult; in California, two unique workers are employed for each average or year-round equivalent job filled by hired workers.

Most farm labor in Australia is employed in broadacre agriculture,

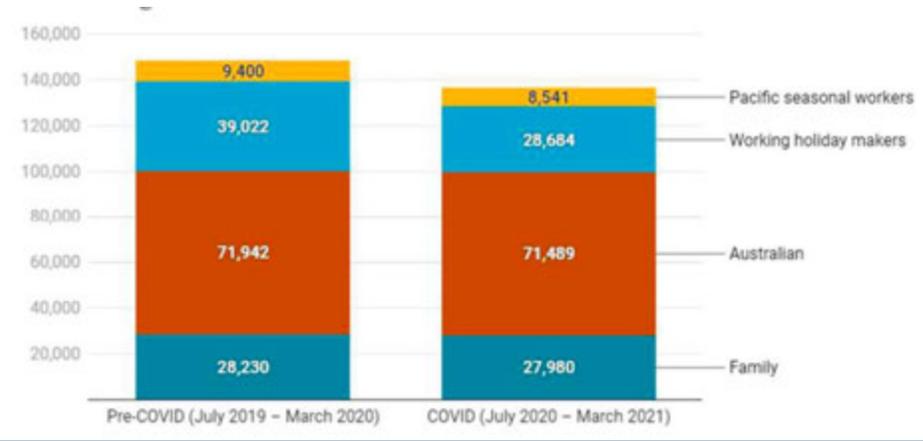
defined as the production of grains and livestock that employed an average 160,000 workers in 2018-19, including family and Australian hired workers. Half of the workers on broadacre farms are skilled and a third are managers, a very different profile from the labor force in horticulture.

The horticulture sector employed an average 135,100 workers in 2020-21, including Australians on short-term contracts, Working Holiday Makers, Australians with permanent contracts, family members of farm operators, and Pacific Australia Labor Mobility (PALM) guest workers, formerly known as SWP workers. There are four WHMs for each PALM worker.

The horticulture workforce peaks at 146,000 in summer and is lowest at 126,000 in winter, a peak-trough ratio of 1.2. An ABARES survey found that 40 percent of horticulture workers were unskilled and 23 percent were semi-skilled, a third were paid piece rates and two-thirds were paid hourly wages, almost 60 percent were men, and labor-hire firms or labor contractors accounted for a peak 52,000 horticulture workers in 2019-20.

Australian farmers have complained of labor shortages for the past decade, and especially after

WHM and PALM Migrants are a Quarter of Average Employment in Australian Horticulture



stay in Australia a second year and work in any job after completing at least 88 days of farm work in their first year. The WHM program began to grant a second-year work visa to WHMs who did at least three months of farm work in 2005, and has been modified several times to encourage more WHMs to work longer for farmers.

WHMs have several advantages for farmers. WHMs pay their own transport costs to Australia, pay for transportation to agricultural areas and housing while doing farm work, and do farm work in order to obtain the right to work in urban jobs. The number of WHMs who qualified for a second-year visa after doing farm work during their first year in Australia peaked at almost 46,000 in 2014-14.

Some WHMs are exploited by their employers or the hostels that sometimes act as labor-hire firms. Enforcement of labor laws protecting WHMs is difficult because the goal of most WHMs is to work in urban labor markets and perhaps become immigrants, as 20 percent do, not to ensure that their Australian farm employers are in compliance with labor laws.

For most WHMs, farm labor is an exit labor market, meaning that dissatisfied WHMs move from one farm to another to accumulate their required farm days worked and then exit for nonfarm jobs. PALM guest workers who can work only for their named employer are in more of a voice labor market, trying to improve wages and working conditions on the farm where they work because of their restricted mobility in Australia.

The PALM guest worker program arose from World Bank recommendations to develop programs to admit seasonal farm workers

Labour shortages may cause farmers to lose crops and consumers to face food price hikes

One cherry grower says 'I've never been so worried in my whole 36 years being a farmer'

Source: <https://www.theguardian.com/australia-news/2021/oct/21/labour-shortages-may-cause-farmers-to-lose-crops-and-consumers-to-face-food-price-hikes>

the government closed its borders in March 2020 to prevent the spread of covid. WHMs can obtain a second-year and more recently a third-year visa to work in any job in Australia if they do at least 88 days of farm work during their first year in the country. As WHMs completed their required farm work in 2020 and moved to urban jobs or left Australia, farmers feared labor shortages for the 2021-22 harvest.

Most of the 10,000 horticultural farms reported more difficulty recruiting hired workers in 2020-21, and the largest farms with an average 37 workers reported a nine percent drop in employment. These large farms accounted for 70 percent of average horticulture employment in 2020-21.

As in other countries, fears of labor shortages were not reflected in farm production or sales data.

Labor shortage is a non-economic concept, typically meaning that an employer wants a crew of 30 workers at a particular time but can find and employ only 20 workers, so that some farm tasks are not completed in a timely way and some crops are not harvested, especially a second or third pick when lower yields raise picking costs. The Australian workers, the majority of hired farm workers, appear to have worked more hours to compensate for the lack of WHMs and other guest workers in 2020-21. Some farmers reported that they did not harvest some crops due to too few workers.

WHM vs PALM

Australian farmers have access to several types of temporary foreign workers. Working Holiday Makers or backpackers are youth from Europe and many Asian countries who can

Large Horticulture Farms Employ 70% of Horticulture Workers and had the Most Difficulty Recruiting Workers in 2020–21

Table 1 Horticulture farm labour use, by farm size quartile, Australia, 2019–20 to 2020–21

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

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

from Pacific Islands in order to fill vacant jobs and to promote development in the islands. NZ created the Recognized Seasonal Employer scheme, while Australia introduced the second-year WHM visa. In 2008 Australia introduced a pilot Pacific seasonal worker program that was formalized in 2012 as the Seasonal Worker Program and is today known as PALM (<https://www.palm-scheme.gov.au/form/apply>).

Most farm employers are approved by the Department of Education, Skills and Employment (DESE) to hire SWP-PALM workers who are 21 and older for up to nine months; a related Pacific Labour Scheme (PLS) allows employers to hire guest workers for one to three years, as in meatpacking and year-round farm jobs. Approved employers, who must have been in business at least five years and pass immigration

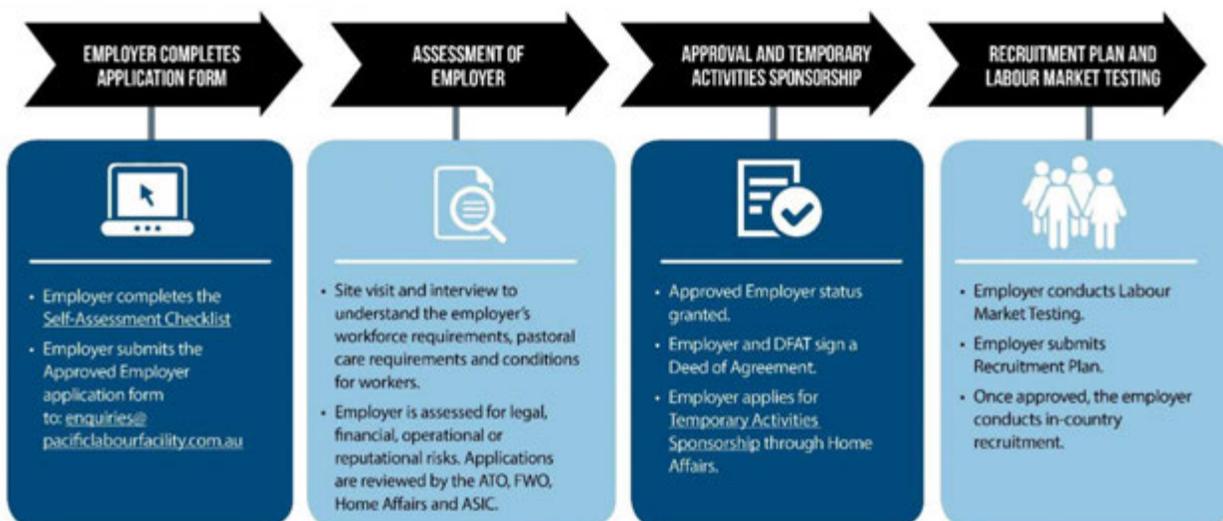
integrity and labor law compliance checks, sign Deeds of Agreement with DESE (nine-month) or DFAT (one to three years).

Applying for approved employer status takes six to eight weeks and requires three years of financial records to demonstrate business viability and an on-site visit that checks the workplace and employer plans to support guest workers. There is no appeal if DFAT rejects an employer application; employers may apply twice in a 12-month period.

After being approved, employers advertise their jobs to ensure that local workers are not available. Most approved employers rehire previous guest workers or rely on government labor-sending units or recruitment agents in sending countries to find workers. The seasonal PALM workers from nine Pacific Islands and Timor-Leste are typically solo males, but only half were returning workers in 2019-20; returning workers are 15 percent more productive than first-time workers. PALM workers cost more than WHMs, so many Australian farm employers who weigh the choice between cheaper but uncer-

Employers Must be Approved to Employ PALM Workers

APPROVED EMPLOYER PROCESS



tain WHMs and more expensive but certain PALM workers rely on WHMs.

The PALM program allows employers and workers to sign agreements that permit the employer to deduct up to A\$300 of the cost of transportation to Australia, housing in Australia, living costs, and mandatory health insurance. This means that newly arrived guest workers may have very low net earnings for their first weeks in Australia due to deductions for expenses.

Some Pacific Island workers whose net earnings are low after arriving in Australia abscond because of their low net earnings, and workers who sign contracts that include deductions may withdraw their agreement to the deductions. Complications arise if the employer has lent the employee money against future earnings, and the guest worker withdraws his permission to have loan repayments deducted from earnings.

PALM workers are enrolled in Australia's superannuation (pension) scheme, and employers contribute 9.5 percent of worker wages to a super fund selected by the worker. Workers are able to claim this payment back from the fund on their return to their islands, but many lack access to a computer to make an online application for a refund. Pacific Island guest workers in Australia are covered by superannuation or pensions, but not those in New Zealand.

Dependence on PALM workers is highest in areas such as Toowoomba and Wide Bay in southeast Queensland and in the Northwest and Shepparton regions of Victoria. Large vegetable farms near Wide Bay can employ guest workers over long periods, while northwestern Victoria fruit growers

have a shorter January-March peak demand for hired workers. Bunbury in Western Australia and the southeastern region of Tasmania also have short windows of high demand for hired workers.

Perspective

Australia's horticultural workforce is half Australian residents, a quarter family workers, and a quarter overseas temporary migrants. There are four WHMs among overseas temporary migrants for each PALM worker

Advocates of the PALM as a means of giving Pacific countries and Timor-Leste access to high paid jobs are disappointed that many Australian employers continue to prefer WHMs. They cite the lower costs of WHMs and the lack of Australian grower involvement and investment in the design and operation of PALM as reasons why WHMs remain more important than PALM workers in Australian horticulture. The infrastructure supporting overseas migrant farm workers has developed over a decade, and appears to specialize in one type of worker, so that the employers, hostels, and others geared to WHMs have not made the switch to PALM workers.

Experience in other countries suggests that growers of lower value and less perishable commodities rely on the lowest cost labor such as WHMs. Growers of tree fruits such as apples, cherries, and peaches may also rely on the lowest cost labor since most are relatively small and have a short need for harvest workers. Commodities with longer harvesting seasons, including strawberries and leafy greens, may invest in long-season workers, especially if they are larger firms with contracts to supply these commodities year round.

There is often path dependence in farm labor markets. The fact that WHMs came first, and that an infrastructure evolved to support their employment for three months in agriculture, means that expanding the PALM program with more expensive guest workers may require labor-hire firms to invest in infrastructure to create work-ready crews that operate in FIFO fashion. The best opportunities to expand the PALM program likely lie with large employers who have long seasons that justify the employment of guest workers for six months or more.

Some of obstacles to PALM expansion arise from the horticultural minimum wage award determined by the Fair Work Commission (<https://www.fairwork.gov.au/employment-conditions/awards/awards-summary/ma000028-summary>). The FWC sets minimum hourly wages for full- and part-time workers in classifications one (\$A20.33 per hour) to five (A\$23.67), and for casual workers from \$25.41 to \$29.59 per hour; casual wages are 25 percent higher because casual workers are not entitled to holiday pay and sick leave.

Beginning April 28, 2022, the FWC requires a "piece worker competent at the piece work task" to earn at least 15 percent more than the appropriate minimum hourly wage, or \$29.22 per hour for a casual worker entitled to at least \$25.41 an hour. Employers must set piece rates so that the "average productivity of a piece worker competent at the piece work task" generates earnings of at least \$29.22 an hour. Employers must record piece rates, units of work accomplished, and earnings on a daily basis, and ensure that the 15 percent piece rate premium is achieved for each worker (<https://horticulture.fairwork.gov.au/>).

Piece rates wages are often paid when it is easier to monitor worker output, such as bins picked, than to measure worker effort. Employers set piece rates so that the average worker earns more than the minimum wage to encourage workers to work fast. Worker productivity varies during the day and week, and most employers calculate piece rate earnings and the minimum wages that are due each pay period so that they can “make up” the wages of workers who did not earn the minimum wage. The FWC requires employers to make these calculations daily.

The FWC banned group piece rates, as when a crew of 20 to 30 workers share a piece rate that reflects the work accomplished by the crew. This may discourage employer investment in mechanical aids such as conveyor belts that travel in front of vegetable or berry workers, enabling them to pick faster, or the use of hydraulic lifts to replace ladders in orchards and allow a crew of four to six to pick into one bin.

The Australian government developed several farm guest worker programs over the past two decades with different employer and worker requirements. Many farm employers are frustrated by the uncertainties inherent in reli-

ance on WHMs who can leave without notice and the high costs of PALM workers who are tied to the employer. Meanwhile, labor-intensive agriculture is consolidating into fewer and larger units, as those unable to attract Australian workers and WHMs, and unable to afford PALM workers, exit production.

References

ABARES Insights. 2022. https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1033241/0

Curtain, Richard, et al. 2018. Pacific seasonal workers: Learning from the contrasting temporary migration outcomes in Australian and New Zealand horticulture. *Asia and Pacific Policy Studies*. <https://onlinelibrary.wiley.com/doi/full/10.1002/app5.261>

Senate Standing Committee on Employment, Workplace Relations and Education. 2006. Perspectives on the future of the harvest labour force. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_Employment_and_Workplace_Relations/Completed_inquiries/2004-07/contract_labour/index

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