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ABARES

Labour force survey

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Overview

Limited detailed data is available on labour use in Australian agriculture. To gain a clearer understanding of the labour profile of agricultural industries, ABARES developed a labour survey to describe current labour use and future requirements. The survey seeks to identify the amount and type of labour used on farms, as well as recruitment experiences and expectations that farmers have of the future.

In 2015–16 ABARES included a supplementary labour survey in the Australian vegetable-growing farms survey and the survey of irrigation farms in the Murray–Darling Basin. ABARES surveyed 300 vegetable farms around Australia and 300 irrigated horticulture and cotton farms in the Basin. These two surveys were conducted between March and June 2016.

ABARES undertook the survey before the government brought in changes to the tax rate on holders of Working Holiday visas (subclasses 417 and 462). Under this policy, originally scheduled to commence in July 2016, these visa holders would be considered non-residents for tax purposes and taxed 32.5 per cent from the first dollar earned. This became known as the ‘backpacker tax’.

In response to concerns, particularly from the agricultural and tourism industries, the government postponed introduction of the new tax rate. In August 2016 its review of the policy included establishment of a taskforce on seasonal workers and independent stakeholder engagement. The new tax rate, which came into effect on 1 January 2017, was reduced to 15 per cent on income up to \$37,000, with standard resident rates for income above this level.

This survey did not seek to determine farmers’ expected labour force responses or losses from changes to the tax. Instead it focused on understanding the current farm workforce. The results from this survey could provide a base case for examining changes in the make-up of the labour force in the future.

Key findings

- In general, labour use (measured by total expenditure and wages as a proportion of total cash costs) is greater in the vegetable, horticulture and cotton industries than in other agricultural industries. However, the large distribution in the amount and type of labour used reflects the diversity of farm types captured by these surveys.
- In the vegetable and horticulture industries, most farm employees are seasonal workers and most of these employees are working in Australia on a visa. In contrast, the cotton industry has more full-time employees, and those workers classified as seasonal are generally Australian or New Zealand residents.
- In 2015–16 most farms did not face challenges filling vacancies or recruiting staff.
- Most farmers indicated that they did not intend to change or would make minimal changes to their businesses over the next five years. However, farmers believed they would need to acquire new skills and knowledge to cope with a changing external environment.
- Farmers saw lower farm business profits and the availability and quality of labour as the greatest workforce challenges facing farm businesses over the next five years.
- Some farms identified the backpacker tax as a potential major workforce difficulty. This was of more concern to horticulture farmers (14 per cent) than to vegetable farmers (6 per cent). None of the cotton farms surveyed indicated that the backpacker tax was a likely future issue.

Results

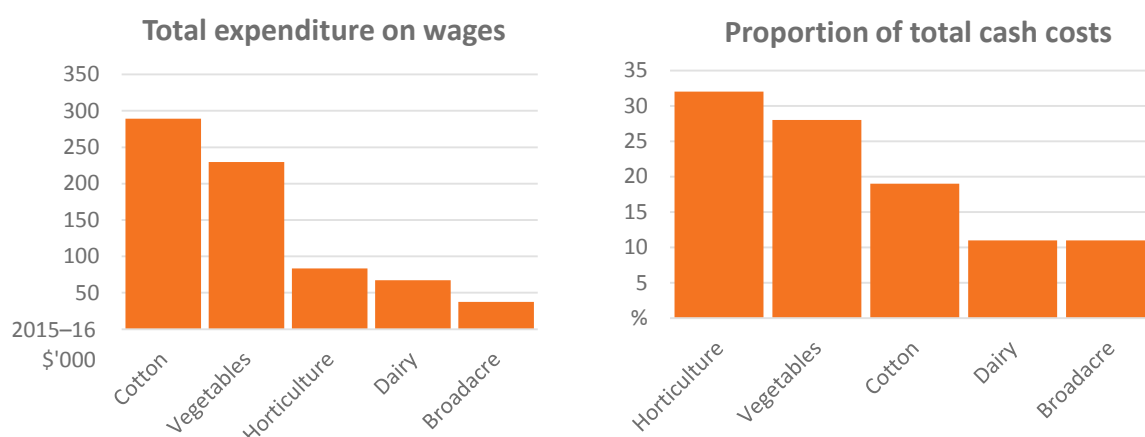
Labour profile

Expenditure

In general, the use of labour is relatively high in the vegetable, horticulture and cotton industries than in other agricultural industries. However, survey results show a large distribution in the amount and type of labour across all industries. Expenditure on labour—including hired labour and contracts paid—accounts for a relatively high proportion of total expenditure in the vegetable and horticulture industries. Expenditure on hired employees is greatest in the vegetable and cotton industries (Figure 1). Hired labour measures wages paid to permanent and casual employees hired directly by the farm. Contracts paid is a fee for service to employees hired indirectly by the farm and may include rent of capital items.

Figure 1 Total expenditure on labour, by industry, 2014–15

average per farm



Note: Financial estimates are in 2015–16 dollars. ABARES collects wage expenditure information on broadacre and dairy farms that can be used to benchmark the vegetable, horticulture and cotton industries. For more information on ABARES broadacre and dairy industries, see ABARES 2016.

Source: ABARES Australian Agricultural and Grazing Industries Survey; ABARES Australian Dairy Industry Survey; ABARES Australian vegetable growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Box 1 Estimates, industry and employee definitions

The ABARES 2016 vegetable and irrigation surveys collected complete physical and financial information for 2014–15. Farmers were also asked to report on the number of people they employed over 2015–16. ABARES has provided the most recent estimate available wherever possible.

ABARES classifies vegetable and horticulture farms according to Australian and New Zealand Standard Industrial Classification codes. The term horticulture covers farms that grow tree and vine crops such as pome fruit, stone fruit, citrus, wine and table grapes, and vegetables.

For the purposes of this survey, employees are defined as all on-farm workers, including the owner–manager, family members working on-farm, unpaid labour, contract workers and seasonal workers. It excludes service providers such as contractors engaged in spraying, earthmoving (for example, laser levelling or dam building), fencing, mulesing and pregnancy testing.

Not all farm employees are financially compensated. These are usually family or friends of the owner–manager working on the farm. This type of labour is measured by imputing the amount of foregone wages. Table 1 shows the distribution of hired labour, contracts paid and imputed

labour in each industry. Generally, farms use some combination of all three types. Those farms with no hired labour in 2014–15 (30 per cent of cotton farms, 38 per cent of vegetable farms and 54 per cent of horticulture farms) rely on family or friends and contractors to complete the planting, maintenance, harvesting, packing and transportation of their output.

Table 1 Distribution of labour expenditure, by industry, 2014–15

Expenditure	Vegetable (%)	Horticulture (%)	Cotton (%)
Hired labour	68	49	39
Contracts paid	26	45	53
Imputed labour	6	6	8

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Expenditure on employees varies across farms depending on the types of crops grown and how they are grown. For example, there are more than 30 different types of vegetables and the available capital substitutes for labour vary depending on the type of vegetable crop produced. In 2014–15 approximately 43 per cent of vegetable farms grew two or more different types of vegetables. The three most commonly grown vegetables—measured by the number of agricultural businesses that planted these crops in 2014–15—were potatoes (880 farms), melons (378 farms) and tomatoes for the fresh market (378 farms) (ABS 2016a).

The NSW Department of Primary Industries May 2013 *Gross margin budgets* estimate the number of workers required to undertake assorted responsibilities in the production of different vegetable types (NSWDPI 2013). Table 2 aggregates the estimated total labour expenditure required to produce vegetables from 1 hectare of land in 2013. Farms that grow more labour-intensive crops will have higher estimated average expenditure on direct hired labour and contractors.

Table 2 Estimated amount and expenditure on labour per hectare, by selected vegetable crops, New South Wales, 2013

Vegetable	Total labour expenditure (\$)
Sweet corn	309
Potatoes (processing)	748
Carrots (processing)	900
Beetroot (processing)	1,320
Butternut pumpkin	3,787
Lettuce	4,045
Capsicum	5,871
Garlic	8,098
Onions	8,749
Asparagus	14,113

Note: Expenditure is in 2013 dollars. Estimates will differ across farms depending on their natural resource endowments and production processes. Refer to the primary source for assumptions and wage rates.

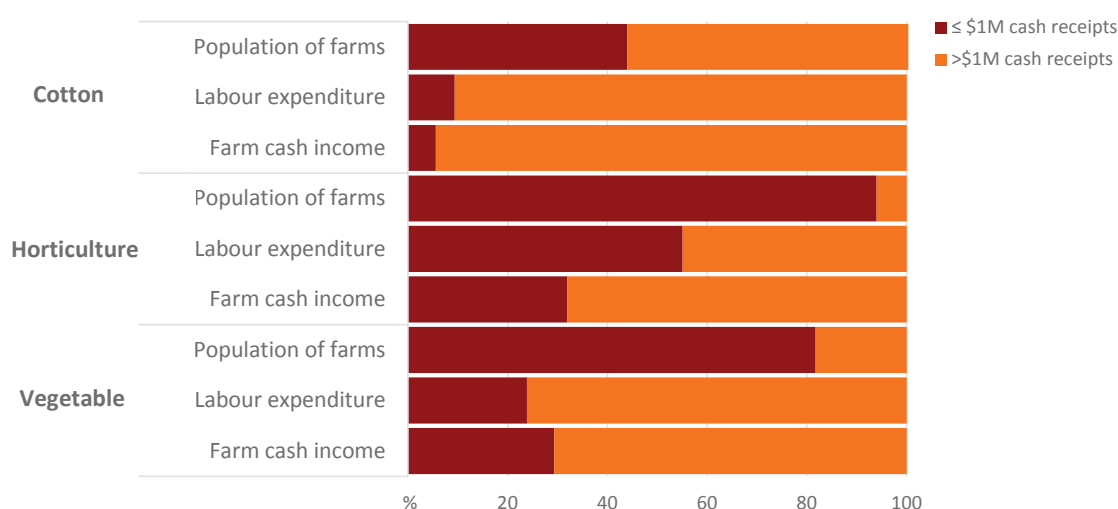
Source: NSW DPI 2013

The production process also influences the amount and intensity of labour used. Different production processes in the vegetable industry include growing vegetables undercover (for example, glass, shade cloth and hydroponics) and processing (for example, prepacking and shredding) on-farm. Most vegetable-growing farms grow vegetables exclusively outdoors.

In the vegetable industry, relatively large farms with greater than \$1 million in total cash receipts in 2014–15 accounted for a greater proportion of total expenditure on labour and farm cash income than smaller farms (Figure 2). An estimated 18 per cent of vegetable farms made more than \$1 million in total cash receipts in 2014–15, but they accounted for 76 per cent of total labour expenditure (including imputed labour) and 71 per cent of farm cash income.

Similarly, large farms in the horticulture industry account for a disproportionate amount of total expenditure on labour and farm cash income (Figure 2). An estimated 6 per cent of horticulture farms made more than \$1 million in total cash receipts in 2014–15, but accounted for 45 per cent of labour expenditure (including imputed labour) and 68 per cent of farm cash income.

Figure 2 Proportion of employees, by type of work and industry, 2014–15



Note: Labour expenditure includes imputed labour.

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

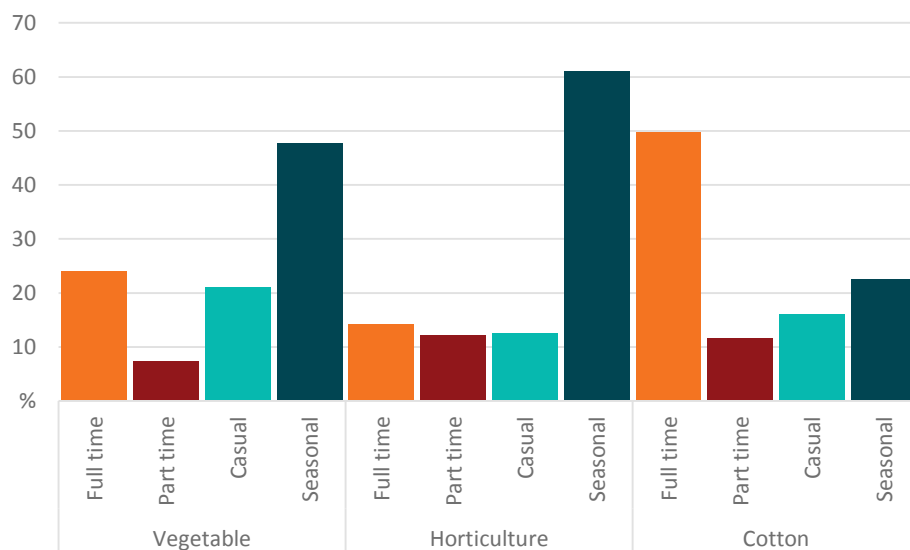
The relative size of farms is much larger in the cotton industry than in the horticulture and vegetable industries. Farms with more than \$1 million in total cash receipts account for more than 50 per cent of the total number of farms in the cotton industry and more than 90 per cent of labour expenditure and farm cash income.

Labour type and background

The labour force survey asked farmers to report the type of employment (full time, part time, casual and seasonal) and background of their employees, including employees who were not paid. Full-time, part-time and casual employees can be characterised as being employed on an ongoing basis, compared with seasonal employees who work for only a short, intense period.

In 2014–15 approximately half of all farms in each industry had five or fewer employees. For many of these farms, the only employees were the owner–manager and their family members (see Appendix A). Less than 1 per cent of vegetable and horticulture farms had more than 100 employees. These were typically very large farms with large output and complex production processes.

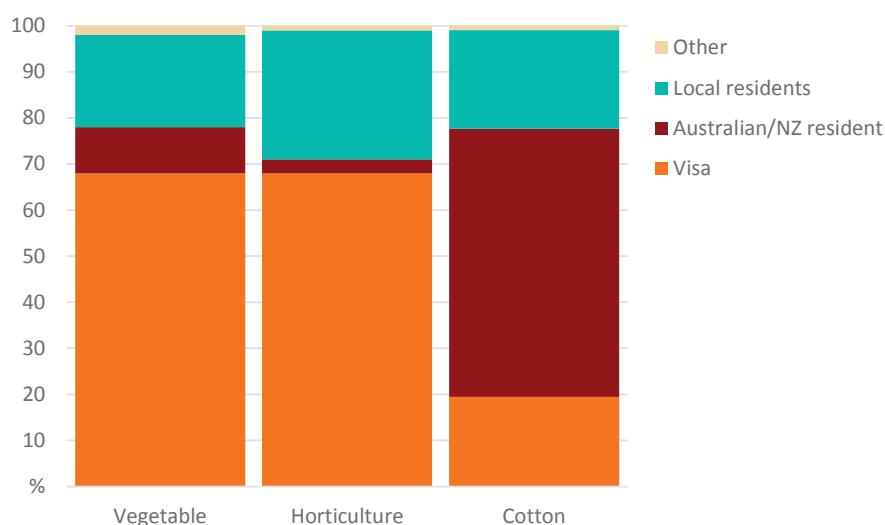
Most employees in the vegetable and horticulture industries are seasonal (Figure 3). The cotton industry employs substantially more full-time workers than seasonal workers. However, the surveys found a large distribution in the type of labour used across farms.

Figure 3 Proportion of employees, by type of work and industry, 2015–16

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

The type of labour used by a farm depends on the type of crops grown and how they are produced. For example, cotton farms employ a larger proportion of ongoing full-time, part-time and casual staff in non-labouring positions. This is because the industry is capital-intensive and requires skilled employees to drive tractors and operate other heavy machinery. In comparison, many horticulture farms with tree and vine crops require hand-pickers for intensive but relatively short periods of time.

Most seasonal employees working on vegetable and horticulture farms in Australia have a visa. In contrast, most seasonal employees in the cotton industry are Australian or New Zealand residents (Figure 4). In 2015–16 most seasonal workers with a visa had Working Holiday visas, but some had Seasonal Worker Programme, Temporary Work (Skilled) or some other kind of visa.

Figure 4 Proportion of seasonal farm employees, by type of work and industry, 2015–16

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Current challenges for farms

At the time of the survey (March to June 2016), less than 5 per cent of farms in the vegetable, horticulture and cotton industries had a vacancy. Less than a third of all farms had attempted to recruit over the last 12 months (Figure 5). Of these, more than 70 per cent in the vegetable, horticulture and cotton industries did not have any problems recruiting (Figure 6).

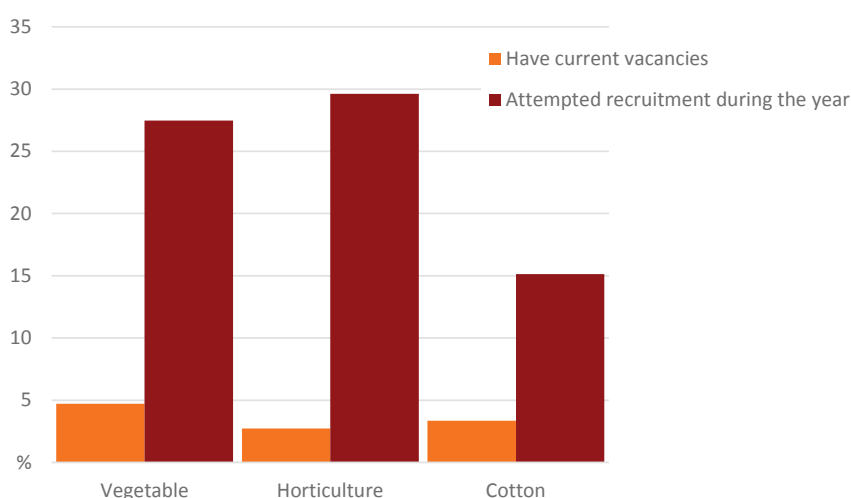
The low rates of vacancies on farms is consistent with vacancies for the agriculture, forestry and fishery sector, where online vacancies are estimated to have accounted for less than 0.5 per cent of the total workforce. The ABS Labour Force Survey reports an average of 318,500 people employed in agriculture, forestry and fisheries in 2015–16 (ABS 2016b). In the same year, 1,441 vacancies were advertised online for agricultural, fisheries and forestry occupations on average per month (DoE 2017).

Farms with more workers were more likely to have attempted to recruit in the last 12 months (Figure 7). In the vegetable industry, 70 per cent of farms with 20 or more workers in 2015–16 attempted to recruit in the last 12 months compared with 22 per cent of vegetable farms with fewer than 20 workers. Similarly, in the horticulture industry, 64 per cent of farms with more than 20 workers in 2015–16 attempted to recruit in the last 12 months compared with 27 per cent of farms with fewer than 20 workers. The sample of cotton farms with more than 20 workers is too small to produce reliable estimates.

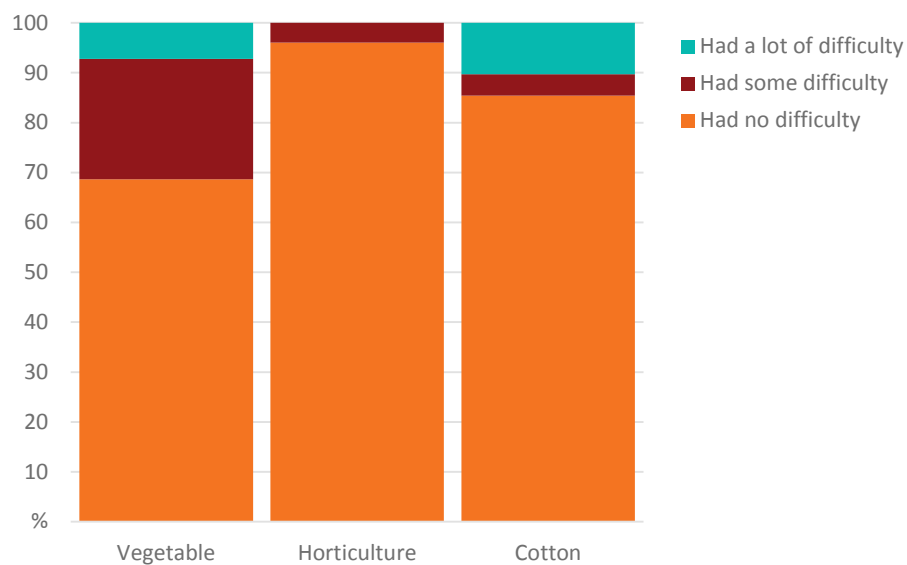
Farms with a relatively large number of workers were also more likely to report having had at least some difficulty with recruitment (Figure 8). In the vegetable industry in 2015–16, 45 per cent of farms with 20 or more workers and 26 per cent of farms with fewer than 20 workers reported having ‘had a lot of difficulty’ or having ‘had some difficulty’ recruiting. In the horticulture industry, 19 per cent of farms with more than 20 workers and only 1 per cent of farms with fewer than 20 workers reported having difficulty recruiting.

Most of the farms that reported having some or a lot of difficulty recruiting cited labouring positions as the most difficult to fill. Among the reasons given were lack of applicant interest in the position and the unsuitability of applicants. The sample of farms that had difficulty recruiting is too small to provide quantitative estimates of the occupation types and reasons for recruitment difficulty.

Figure 5 Proportion of farms recruiting and with vacancies, by industry, 2015–16

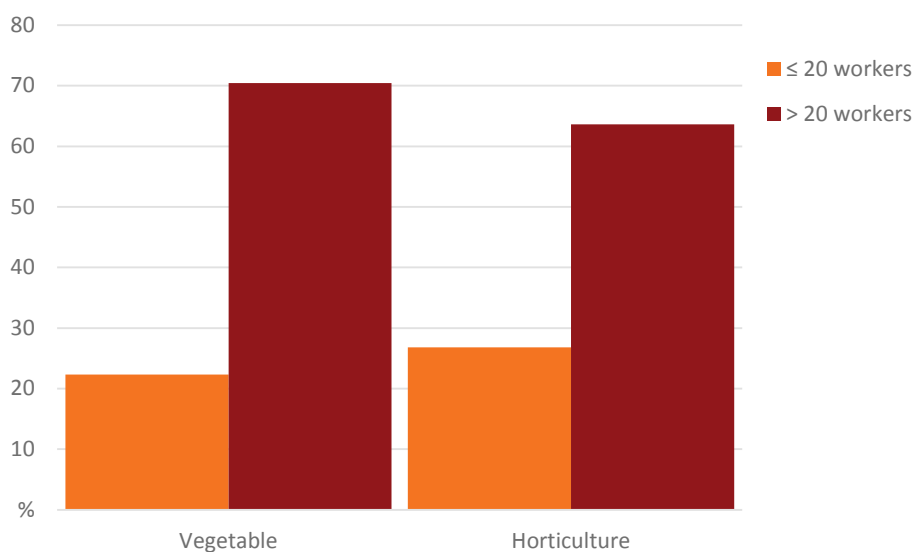


Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Figure 6 Difficulty recruiting, by industry, 2015–16

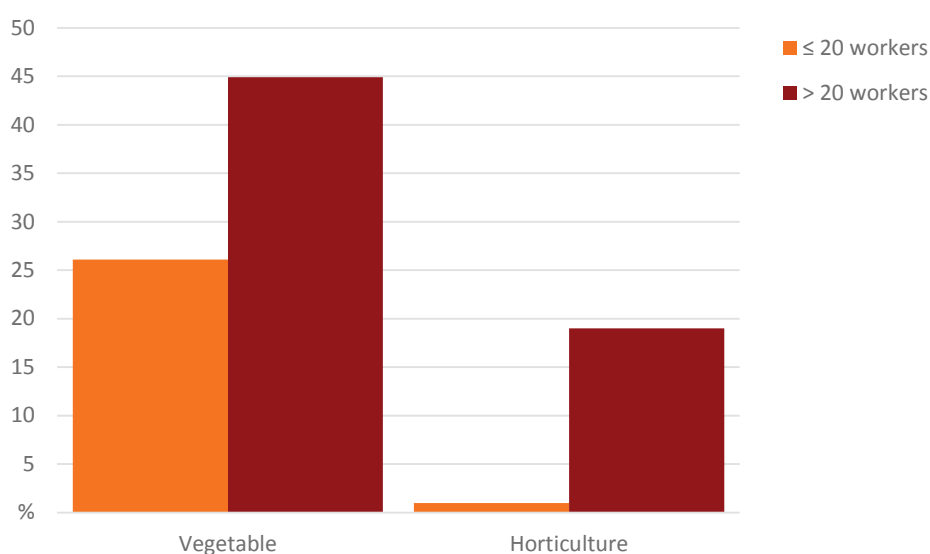
Note: ABARES asked survey participants to respond to the question 'To what extent did you have difficulty in recruiting staff?' by selecting one of the following answers: 'Had a lot of difficulty', 'Had some difficulty' or 'Had no difficulty'. These estimates were constructed using the sample of farms that attempted to recruit.

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Figure 7 Proportion of farms attempting to recruit, by industry and number of employees, 2015–16

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Figure 8 Proportion of farms reporting recruitment difficulties, by industry and number of employees, 2015–16



Note: ABARES asked survey participants to respond to the question ‘To what extent did you have difficulty in recruiting staff?’ by selecting one of the following answers: ‘Had a lot of difficulty’, ‘Had some difficulty’ or ‘Had no difficulty’. These estimates were constructed using the sample of farms that attempted to recruit.

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Future issues and farmers’ perceptions

Farmers were asked questions about the future of Australia’s agricultural workforce and how they intended to change their business practices. Responses to these questions highlighted similar themes across the vegetable, horticulture and cotton industries.

In 2015–16, 64 per cent of farmers surveyed said they either did not intend to change or would make minimal changes to their farm business over the next five years (Table 3). However, respondents believed that in a changing external environment (such as new work practices, technology and legislation) farm managers would need to acquire new skills and knowledge.

Farmers were asked to indicate the top three major workforce difficulties that they expected to face over the next five years. Most of the responses related to farm profitability and the quantity and quality of labour (Table 3). Farm profitability was of more concern for vegetable and horticulture farms. The availability and quality of labour was more of an issue for vegetable and cotton farms.

The variability in responses reflects the diversity of farm-specific issues. For example, ABARES interviewed survey collectors in July 2016 immediately following the collection of the survey data. Survey collectors indicated that farms further away from major town centres were affected by the lack of amenities such as accommodation, transport and recreational facilities. Farm size may also have been an issue because farmers with a large labour force were more likely to cite difficulties keeping up to date with their legal responsibilities as employers.

Some farms identified the backpacker tax as a potential major workforce difficulty (Table 3). At the time of the survey, the proposed tax on backpacker earnings was 32.5 per cent from the first dollar earned. The backpacker tax was of more concern to horticulture farmers (14 per cent) than it was to vegetable farmers (6 per cent). None of the cotton farms surveyed indicated that

the backpacker tax was a likely future issue. Appendix B provides a more detailed breakdown on farm labour issues and future practices.

Table 3 Survey responses to farm labour issues and future practices, by industry, 2015–16

Survey questions	Vegetable (%)		Horticulture (%)		Cotton (%)	
How are you planning to change your business practices in the next five years?						
No or minimal change	70	(5)	64	(10)	75	(8)
Why will workers need to acquire new skills or knowledge?						
New work practices	28	(14)	16	(20)	46	(16)
New technology	31	(10)	13	(25)	72	(12)
New legislation	34	(10)	16	(33)	49	(16)
Which occupations will be most affected by the need to acquire new skills or knowledge?						
Managers	57	(6)	28	(22)	74	(10)
What do you see as the major workforce difficulties you will face in the next five years?						
Lower profits	53	(6)	48	(14)	29	(17)
Labour availability and quality	60	(6)	34	(17)	69	(8)
Backpacker tax	6	(23)	14	(29)	na	—

Note: Figures are rounded to the nearest whole number. Farms were invited to provide more than one response to each question. Figures in parentheses are standard errors expressed as a percentage of the estimate. **na** Not available.

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

Appendix A: Distribution of labour

Table A1 Proportion of vegetable farms, by labour and employment type, 2015–16

Background	Units	Full time		Part time		Casual		Seasonal	
Family	%	97	(2)	94	(3)	31	(19)	7	(41)
Local	%	19	(11)	8	(32)	64	(10)	50	(9)
Australian or New Zealand resident	%	na	–	na	–	1	(66)	13	(27)
Working Holiday visa	%	na	–	na	–	19	(23)	54	(9)
Seasonal Worker Programme visa	%	na	–	na	–	na	–	4	(43)
Temporary Work (Skilled) visa	%	na	–	na	–	1	(79)	3	(43)
Other visa	%	na	–	1	(92)	na	–	na	–
Unknown	%	na	–	na	–	na	–	6	(36)
Other	%	2	(59)	na	–	na	–	1	(67)
Age									
Less than 18	%	na	–	na	–	10	(42)	4	(43)
Between 18 and 35 years	%	20	(12)	21	(23)	56	(7)	81	(5)
Between 36 and 55 years	%	57	(7)	53	(13)	43	(12)	44	(11)
Over 55 years	%	61	(6)	51	(11)	24	(24)	18	(23)
Type									
Managers	%	92	(3)	35	(13)	1	(77)	1	(62)
Professionals	%	2	(44)	5	(45)	na	–	1	(88)
Technicians and trades	%	5	(23)	1	(66)	1	(212)	na	–
Clerical	%	14	(18)	38	(15)	6	(52)	1	(54)
Machinery operators and drivers	%	21	(12)	6	(34)	18	(16)	7	(29)
Labourers	%	23	(14)	30	(18)	87	(4)	98	(2)

Note: A farm can have full-time, part-time, casual and seasonal labour that matches multiple classifications of background, age and work type. Figures in parentheses are standard errors expressed as a percentage of the estimate. **na** Not available.
Source: ABARES Australian vegetable-growing farms survey

Table A2 Proportion of horticulture farms, by labour and employment type, 2015–16

Background	Units	Full time		Part time		Casual		Seasonal	
Family	%	94	(3)	96	(2)	10	(55)	na	–
Local	%	18	(21)	4	(51)	86	(6)	48	(19)
Australian or New Zealand resident	%	na	–	na	–	2	(72)	6	(72)
Working Holiday visa	%	na	–	na	–	4	(65)	44	(24)
Seasonal Worker Programme visa	%	na	–	na	–	1	(84)	17	(48)
Temporary Work (Skilled) visa	%	na	–	na	–	1	(91)	6	(74)
Other visa	%	na	–	na	–	na	–	na	–
Unknown	%	na	–	na	–	1	(74)	7	(60)
Other	%	na	–	na	–	na	–	1	(87)
Age									
Less than 18	%	1	(103)	na	–	2	(97)	2	(111)
Between 18 and 35 years	%	17	(26)	4	(72)	43	(16)	80	(9)
Between 36 and 55 years	%	38	(16)	24	(24)	52	(19)	27	(28)
Over 55 years	%	71	(8)	82	(6)	21	(48)	25	(24)
Type									
Managers	%	97	(3)	58	(11)	4	(104)	na	–
Professionals	%	3	(74)	1	(67)	na	–	na	–
Technicians and trades	%	4	(65)	na	–	na	–	na	–
Clerical	%	12	(38)	51	(13)	na	–	na	–
Machinery operators and drivers	%	13	(25)	1	(57)	4	(58)	9	(66)
Labourers	%	9	(30)	7	(40)	92	(5)	92	(6)

Note: A farm can have full-time, part-time, casual and seasonal labour that matches multiple classifications of background, age and work type. Figures in parentheses are standard errors expressed as a percentage of the estimate. **na** Not available.
Source: ABARES survey of irrigation farms in the Murray–Darling Basin

Table A3 Proportion of cotton farms, by labour and employment type, 2015–16

Background	Units	Full time		Part time		Casual		Seasonal	
Family	%	93	(3)	93	(3)	17	(49)	7	(73)
Local	%	53	(11)	10	(21)	78	(11)	64	(18)
Australian or New Zealand resident	%	1	(74)	na	–	3	(81)	18	(39)
Working Holiday visa	%	na	–	na	–	10	(29)	26	(41)
Seasonal Worker Programme visa	%	na	–	na	–	na	–	na	–
Temporary Work (Skilled) visa	%	1	(58)	na	–	2	(66)	na	–
Other visa	%	na	–	na	–	2	(69)	na	–
Unknown	%	na	–	na	–	na	–	na	–
Other	%	1	(72)	na	–	na	–	na	–
Age									
Less than 18	%	na	–	6	(66)	12	(42)	7	(88)
Between 18 and 35 years	%	34	(14)	7	(40)	61	(10)	84	(7)
Between 36 and 55 years	%	74	(11)	64	(9)	39	(18)	20	(43)
Over 55 years	%	62	(12)	42	(17)	5	(69)	10	(53)
Type									
Managers	%	100	–	23	(21)	na	–	4	(100)
Professionals	%	5	(28)	2	(80)	na	–	na	–
Technicians and trades	%	26	(13)	5	(95)	17	(41)	na	–
Clerical	%	25	(19)	63	(9)	na	–	na	–
Machinery operators and drivers	%	29	(17)	12	(46)	50	(14)	80	(8)
Labourers	%	13	(17)	8	(49)	41	(9)	23	(32)

Note: A farm can have full-time, part-time, casual and seasonal labour that matches multiple classifications of background, age and work type. Figures in parentheses are standard errors expressed as a percentage of the estimate. **na** Not available.
Source: ABARES survey of irrigation farms in the Murray–Darling Basin

Appendix B: Future expectations

Table B1 Survey responses to farm labour issues and future practices, by industry, 2015–16

Questions	Units	Vegetable		Horticulture		Cotton	
How are you planning to change your business practices in the next five years? b							
Expanding	%	9	(17)	13	(40)	14	(33)
Shrinking	%	7	(33)	13	(38)	3	(59)
Diversify	%	4	(26)	10	(51)	na	–
Leave	%	2	(39)	5	(49)	4	(65)
No or minimal change	%	70	(5)	64	(10)	75	(8)
Increase livestock	%	3	(43)	na	–	2	(88)
Increase crop	%	6	(30)	4	(50)	7	(23)
Reduce crop	%	5	(39)	2	(52)	1	(104)
Increase technology	%	3	(30)	na	–	5	(74)
Why will workers need to acquire new skills or knowledge? b							
The development of new products and services	%	17	(19)	5	(39)	33	(13)
The introduction of new working practices	%	28	(14)	16	(20)	46	(16)
The introduction of new technology or equipment	%	31	(10)	13	(25)	72	(12)
New legislative or regulatory requirements	%	34	(10)	16	(33)	49	(16)
Increased competitive pressure	%	12	(20)	2	(52)	1	(86)
Which occupations will be most affected by the need to acquire new skills or knowledge? b							
Managers	%	57	(6)	28	(22)	74	(10)
Professionals	%	na	–	na	–	10	(28)
Technicians and trades	%	2	(34)	2	(90)	22	(16)
Clerical	%	5	(26)	na	–	31	(15)
Machinery operators and drivers	%	14	(14)	9	(31)	52	(13)
Labourers	%	34	(11)	22	(25)	27	(25)
Other	%	6	(30)	3	(68)	11	(35)
What do you see as the major workforce difficulties you will face in the next five years? a							
Backpacker tax	%	6	(23)	14	(29)	na	–
Government regulation	%	4	(33)	1	(92)	1	(77)
Farm business profits and labour costs	%	53	(6)	48	(14)	29	(17)
Competition for labour	%	5	(24)	9	(31)	10	(29)
Availability and quality of labour	%	60	(6)	34	(17)	69	(8)
Negative perceptions	%	32	(12)	9	(28)	34	(23)
Location and accommodation	%	4	(21)	3	(50)	12	(30)
No difficulties	%	6	(31)	11	(32)	1	(132)

Note: Figures in parentheses are standard errors expressed as a percentage of the estimate. **a** Respondents were asked to choose up to three reasons. **b** Respondents were asked to select all relevant answers. **na** Not available.

Source: ABARES Australian vegetable-growing farms survey; ABARES survey of irrigation farms in the Murray–Darling Basin

References

ABARES 2016, [Australian farm survey results 2013–14 to 2015–16](#), Canberra.

ABS 2016a, [Agricultural commodities Australia, 2014–15](#), cat. no. 7121.0, Australian Bureau of Statistics, Canberra.

ABS 2016b, [Labour force, Australia: November 2016](#), cat. no. 6291.0.55.003, Australian Bureau of Statistics, Canberra.

DoE 2017, [Internet Vacancy Index Detailed Occupation Data—March 2006 onwards \(Excel 2.48mb\)](#), Department of Employment, Canberra, accessed 24 January 2017.

NSWDPI 2013, [Horticulture gross margin budgets](#), New South Wales Department of Primary Industries, Sydney.