



Final Report

Skills Needs Analysis

for the

Tasmanian Fruit Industry

2014



The following report is the culmination of a need identified by the Tasmanian Fruit Industry to identify the workforce development needs across the pome, stone and berry fruit sectors.

The report has been produced with the assistance of funding provided by the Commonwealth Government through the Department of Industry.

AgriFood wishes to acknowledge the significant contribution to the project provided by Phil Pyke and Nick Featherstone from Fruit Growers Tasmania. The Tasmanian Government provided support and expert guidance to the project team through Kate Dickinson (Food and Agribusiness) and Michael McGee (Skills Tasmania) from the Department of State Growth.

The work undertaken on behalf of the project team by Nick McShane and Kim Sylow from Stenning and Associates Pty Ltd and David Morgan of The Work Lab will position the industry to make evidenced-based decisions on strategies to adopt to address its workforce development challenges.

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Disclaimer

The information contained in this report has been sourced from various stakeholder consultations, desktop research, publications and websites. While all due care has been taken in compiling this document, Stenning & Associates Pty Ltd and The Work Lab accept no responsibility for the accuracy or completeness of information gained from these sources and recommends that readers exercise their own skill and care with respect to its use. We will not be responsible for any loss, however arising, from the use of, or reliance on this information.

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Glossary

ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ABS	Australian Bureau of Statistics
ANZSIC	Australian and New Zealand Standard Industrial Classification
DPIPWE	Department of Primary Industries, Parks, Water and Environment
FGT	Fruit Growers Tasmania
NCVER	National Centre for Vocational Education Research
TFGA	Tasmanian Farmers and Graziers Association
VET	Vocational Education and Training



Executive Summary

AgriFood Skills Australia is working with the Tasmanian fruit industry in a two stage project to develop an industry workforce development plan.

This report presents skills needs analysis for the industry and concludes the first phase of the project. It outlines information on the demographics of the Tasmanian fruit industry, including its current and future workforce needs.

The development of this report has involved research activities aimed at collecting data on the fruit industry, its workforce and its skills needs from a number of primary sources:

- A brief review of some relevant skills plans and workforce industry plans;
- Australian Bureau of Statistics publications;
- An online industry survey which received 70 responses – 61 of those at the individual business level – which is approximately 30 per cent of the industry operators; and
- Three regional roundtable discussions and a small number of individual interviews involving 22 industry participants.

It should be noted that no support vendors (e.g. specialist service suppliers, etc.) responded to the industry survey. The lack of data on this sector of the fruit industry workforce suggests that a further follow up with this specific sector may be required.

Outlined below are the key insights and implications arising from the research activities, covering the following topic areas:

- Businesses in the Tasmanian fruit industry;
- The fruit industry workforce;
- Skills and skills development in the fruit industry; and
- Workforce attraction and retention.

These key insights and implications should form as baseline evidence on which to commence phase 2 of the project - the development of a workforce development plan for the Tasmanian fruit industry.

Businesses in the Tasmanian fruit industry

Key insights

- The fruit industry is polarised in terms of operation size and location:
 - There are a few businesses with large workforces and many with medium and small workforces. The industry survey found that:
 - ◆ Those respondents who had summer stone fruit operations tend to be small businesses - employing 25 persons or less.
 - ◆ Those who had pome fruit operations and/or cherry operations tend to be medium sized businesses, having between 26 and 75 employees.
 - ◆ Those who had berry operations tend to be either small or large sized businesses.
 - There is some variation in business size by region, with the survey showing that:
 - ◆ Almost two thirds of businesses in the south are small businesses; and

- ◆ Around half the businesses in the north and north-west are medium sized businesses.
- While nearly all businesses responding were involved in fruit growing, the large fruit businesses tended to be more diversified in the operations they undertook. The survey found that:
 - A greater proportion of large businesses undertake all areas of operations compared with small or medium sized businesses; and
 - Small and medium sized businesses undertake a similar diversity of operations.
- Feedback from the roundtables and individual interviews indicate that the underlying business model for all fruit industry operations is clearly focused on niche, high quality, highly branded products.
- A significant majority of businesses in all sectors of the industry, except summer stone fruits, expect to grow over the next five years:
 - Growth expectations were strongest with large fruit businesses;
 - Growth expectations were strongest for those businesses involved with cherries or berries; and
 - Growth expectations were strongest in the northern and southern regions.
- The survey indicated that two of the top three challenges for fruit businesses relate to workforce issues:
 - The greatest challenge was labour costs, with this being reinforced in the roundtables where participants indicated that Tasmania was one of the highest cost producers in the world.
 - The third ranked challenge was the availability of appropriately skilled labour. This shows that the industry is focused on the availability of skilled labour, rather than labour more generally.

Implications for Workforce Planning

- The specific business profile of the fruit industry (i.e. differences in the scale, location and fruit type) need to be considered when planning for future skills and workforce needs of the industry and developing training programs. There is likely to be different workforce needs and issues for operations depending on their size/location, for example:
 - Smaller operations are likely to have more generalist skill needs for their workforce; and
 - Larger operations are likely to have narrow, more specific skill needs for their workforce due to a higher degree of labour specialisation.
- The growth in production expected by the fruit industry is likely to drive an increasing demand for skills and labour.
- Importantly, the fact that skilled labour was flagged as a key challenge and not the availability of labour more generally indicates that it is the availability of the skills required by industry that is likely to be the factor that limits the ability of the industry to achieve growth expectations.

The fruit industry workforce

Key insights

- Key characteristics of the fruit industry workforce include:
 - The smaller the business, the older the age profile of its workforce;
 - Almost half of the industry's workforce is in the South East region, (46 per cent of the fruit industry workforce in 2011);
 - The berry workforce is mainly located in the north-west, and north of the state;



- The apple and pear workforce is focused mainly in the south east;
 - The stone fruit workforce is located mainly in the south;
 - The industry workforce is male dominated, comprising 64 per cent of the workforce;
 - The age profile of respondents is similar to that found in 2011, with the greatest number of respondents falling within the 45-54 age bracket;
 - Full-time work is the most prevalent work mode for the industry;
 - The industry is a multi-cultural employer, with a wide representation of nationalities working in the industry – predominately as part of the seasonal workforce. The industry relies significantly on 'backpacker' workers;
 - The larger the business the greater the number of managers and team leaders employed; and
 - The need for regulatory compliance-based certification increases with the size of the businesses' workforce.
- Industry reliance on 'backpackers' for its seasonal workforce means that it is susceptible to any changes in visa arrangements.
 - For example, if visa arrangements were tightened, the supply of seasonal workers from this source could be expected to be reduced.
 - Round table participants noted that the administrative and reporting requirements that businesses need to meet in relation to the employment of backpackers on visas can be confusing and cumbersome.
 - There is evidence that the fruit industry's previously declining workforce is expected to rebound:
 - There is a general expectation that workforce numbers will increase over the next five years. This is in line with the expected increases in production.
 - Larger businesses have significantly more demand for the following job roles:
 - Managers;
 - Team leaders;
 - Packhouse/packing workers;
 - Horticulturalists/Agronomists;
 - Processing operations workers; and
 - Technicians.
 - The increasing trend towards the corporatisation of the fruit industry and the increase in the size of businesses is likely to have a significant impact on the industry's demand for skills.
 - It is expected that this trend will see an increase in the demand for a variety of job roles.
 - It is also likely to see an increase in the demand for compliance-based skills, both in terms of regulatory compliance and quality system compliance, as larger businesses indicate a greater need for occupational related licences.

Implications for Workforce Planning

- The older age profile of small fruit businesses suggests there may be a need for succession/exit planning for this cohort of the industry.
- The expected increase in the size of the workforce will require efforts to ensure that the increased demand for skills is appropriately prioritised and resourced by industry, government and the training system.
- There may be a need for communication strategies to ensure the Australian Government is aware of the importance for the industry of stable visa arrangements.



- In addition to expected industry growth, the increasing trend towards the corporatisation of the fruit industry and the increase in the size of businesses is likely to have a significant impact on the industry's demand for skills.
 - Importantly, it is expected that this trend will see an increase in the demand for skilled workers:
 - ◆ at management level - managers and team leaders;
 - ◆ at a technical level – horticulturalists, agronomists, technicians; and
 - ◆ at operational level – packhouse/packing workers.
 - It is also likely to see an increase in the demand for compliance-based skills.

Skills and skills development in the fruit industry

Key insights

- Skill development is critical to the future success of the industry as it can drive productivity and quality improvements and meet a rapidly growing export market. In particular, there is a need for upskilling in new practice and new knowledge being driven by technological change, changing market conditions and changing production conditions.
 - Accordingly, there are roles to play for training providers, industry operators, peak industry bodies and government to allow the sector to meet the skill challenges necessary to ensure it is well equipped for the competitive environment into the future.
 - This includes ensuring that there are appropriate links between research findings, innovative practices and technologies and VET skill development pathways.
- Industry operators consider that they have a solid stock of skills, with in excess of 80 per cent of operators rating their skills as adequate or very good across a range of different skill areas.
 - Some caution needs to be applied in relation to this insight, as there are some views that self-assessment can tend to over-rate skill levels.
 - This can also be contrasted against the literature which suggested that a key skill driver for the broader agriculture sector is the need to develop business management, leadership and entrepreneurial capabilities.
- The vocational education sector has a significant role to play in addressing industry skill needs as it provides the certificate level qualifications that are most typically held by industry operators.
 - This is in line with relevant industry literature that indicates that paraprofessional/ technician job roles in the broader agricultural sector are trained through the VET sector.
- While not raised in the industry survey or the roundtable and other consultations, the literature indicates that there is a lack of recognition and response by the VET sector to an increasing demand from industry for skill sets rather than full qualifications.
- There is limited use of the VET and tertiary education sectors by the industry:
 - It appears that specific industry related training has not historically been a high priority for the fruit industry, as 75 per cent of respondents do not have specialist industry related qualifications. Despite this, the VET sector provides the certificate level qualifications that are most typically held by industry operators; and
 - There appears to be limited involvement in the delivery of specific training related to production horticulture by RTOs in Tasmania.



- The literature suggests that the ability of the VET sector to service the needs of the industry is impinged by a range of challenges that can limit the capacity of the VET sector to service industry's needs.
- The bulk of current industry training appears to be provided by employers with only some seven per cent of respondent's training expenditure being used to purchase training from external providers:
 - This training effort involves informal (rather than formal, nationally recognized) training;
 - The survey indicated that, on average:
 - ◆ Fruit industry operations spend around three per cent of their total expenditure on training; and
 - ◆ 24 per cent of the training expenditure of fruit operators was spent on their permanent workforce.
- As the fruit industry expands and becomes more corporatised, there is likely to be a need for more use of external providers and formal, nationally recognised training (both at a VET and tertiary level).
- Access to training is not considered a problem by industry, with 90 per cent of respondents reporting they had no problems accessing the training they required, with some exceptions:
 - However, a significant proportion of operators (35 per cent) had not tried to access external training recently.
- Industry operators indicated that there are established structures of career pathways within the industry. However, these pathways are not actively promoted and the access points to those pathways are not clear:
 - This is indicated by the wide variety of fields of study undertaken and specialist qualifications held by respondents; and
 - A number of operators were critical of the lack of formal skill based pathways in production horticulture.

The literature suggests that this is a common barrier to skill and workforce development across the agricultural sector.

- There is evidence that larger operations are embracing a training culture, but that the training culture of medium to small operations is less developed.
 - There is a contrast between the approaches to training by larger operators compared to small to medium operators, with larger operators seen to be more likely to use externally facilitated and nationally recognised training.

Implications for Workforce Planning

- There is a need to investigate how to improve the links between industry skills demand and supply through the use of formal skill based pathways (for example, in production horticulture).
- Industry workforce planning strategies need to recognise that informal methods of knowledge transfer are an important and preferred mode of learning for many in the fruit industry.
- There is a need to consider how to strengthen the transfer to VET sector skill development pathways of new technology and innovation findings that stem from higher education research and development.
- Given the relatively low use of the VET system by the industry, there is a need to consider developing strategies to:
 - Identify and address barriers that limit the capacity of the VET sector to service the industry's needs;



- Improve the support that the VET training system can provide to the industry, particularly through identifying ways to support the knowledge transfer from industry (e.g. horticulture specific knowledge) to RTOs in the VET sector;
 - Inform industry operators of the training opportunities available to them, and the benefits these opportunities can provide to their operations; and
 - Consider the extent of industry demand for skill sets and how the VET sector can service that demand.
- Consideration should be given to clearly identifying and formalising industry career pathways and investigating how they can be supported by skills based training:
 - Promotion of career pathways would need to provide for both vertical 'school/university to work' pathways and horizontal 'other industries to fruit industry' pathways.
 - The industry could benefit from investigating how to improve the training culture across small to medium sized operations.

Workforce attraction and retention

Key insights

- There were some differences between the methods used for recruiting seasonal and permanent staff:
 - There is greater use of social media and labour hire/recruitment companies for recruitment of seasonal staff in the berry and summer stone fruit sectors; and
 - The larger the operation, the more diverse the methods of recruiting that are used.
- The industry finds it difficult to recruit skilled and experienced managers, team leaders, processing operations workers and technicians.
 - This is likely to be influenced by competition for skilled labour from other industries.
- In contrast, attracting skilled orchard/field workers and packhouse/packing workers (e.g. mainly seasonal staff) is not seen as an issue:
 - The challenge with seasonal staff is managing the volume of applications received, with operators generally reporting that enquiries exceeded jobs available; and
 - The seasonal workforce has a significant international component, as difficulties have been experienced with sourcing reliable local labour for seasonal job roles.
- Worker retention is only an issue for particular job roles and business sizes:
 - Larger operations find it particularly difficult to retain packing staff.
 - Almost a third of medium sized businesses can have problems retaining managers and team leaders. In contrast, a majority of all sizes of operations find the retention of orchard/field workers generally easy. Nevertheless, over a third of large operations reported that it was difficult to retain these workers.
- The key challenges in retaining workers reported by fruit industry operators are the seasonal nature of the work and salaries and wages.
- There is concern amongst industry operators that there is a need to improve the image of the industry as an attractive place to work, with this image problem adversely impacting on the ability of the industry to attract new workers and retain existing ones.
 - This concern is consistent with the literature, which indicates that it is a commonly held concern across agricultural industries.
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Implications for Workforce Planning

- Strategies to improve recruitment and retention practices will be required as skills demand grows within the industry.
 - In particular, strategies to improve the retention of skilled workers are likely to become a cost effective way of maintaining the stock of skills in the industry (compared to training workers).
- To improve industry recruitment there is a need to identify initiatives that could improve the perception of the industry to one that provides good well remunerated careers with clear pathways.
 - This should be accompanied by identifying worker recruitment and retention practices that provide operators with more confidence that they can capture the benefits of their investment in training.



1 Introduction

1.1 Background

AgriFood Skills Australia is working with the Tasmanian fruit industry in a two stage project to develop an industry workforce development plan.

For the purposes of the project, the industry scope covers pome, stone and berry fruit and comprises businesses covering fruit growing, fruit picking, packing and processing operations and support vendors.

The research process was purposely sequenced to confirm what the literature and public data says, better understand the local context through a survey and to explore specific critical workforce issues uncovered from the previous two data collections in guided roundtable discussions. A detailed project methodology is contained in [Attachment A](#). The data collected during this phase of the project was confirmed with the Reference Group for the project and is shown in [Attachment A](#).

The first phase of the project was to collect information on the demographics of the Tasmanian fruit industry (including its current and future workforce needs) to provide an evidence base on which the workforce development plan can be developed in phase 2.

The data collected in this phase will support the development of the industry workforce development plan. This phase of the project has broadly involved collecting data on the fruit industry, its workforce and its skills needs from a number of primary sources:

- A brief review of some relevant skills plans and workforce industry plans;
- Australian Bureau of Statistics publications;
- An online industry survey; and
- A series of regional roundtable discussions (supplemented by a small number of individual interviews).

Data available from public data sources (ABS, ABARE, NCVER etc.) have been used to provide a broad picture of the industry and its workforce, illustrate trends over time and identify some nationally significant skills/labour drivers and barriers. This phase of the project also incorporates a primary research focus involving data collection via an online survey, individual interviews and roundtable meetings with key industry representatives. The primary research fills critical gaps in the desktop literature.

It should be noted that there is an issue with making comparisons between the 2006 and 2011 ABS Census data in that the 2006 data is based on the ABS ANZSIC codes from 1993, which do not include Berry Fruit Growing as an industry category. The 2011 data uses the ANZSIC codes developed in 2006, which do include Berry Fruit Growing. While there is a category in the 2006 industry data titled 'fruit growing nec (not elsewhere classified)', it cannot be assumed that this includes berry fruit growing only. Therefore any comparisons between the two would need to be treated with caution.

This report discusses the research findings according to the broad areas of:

- Businesses in the Tasmanian fruit industry;
- The fruit industry workforce;
- Skills and skills development in the fruit industry; and
- Workforce attraction and retention.

Each section:

- Provides the key insights arising from the section;
- Presents ABS Census or Business Counts data relevant to the broad topic area;
- Outlines the findings of the survey in relation to the broad topic area; and
- Summarises the key findings from the roundtables and further consultations.

1.2 Data collection

1.2.1 Survey responses

A total of 70 full responses to the survey were received¹. Sixty one respondents reported that they were responding on behalf of a business, and seven reported that they were responding as an employee. Two respondents did not answer this question. The survey findings reported below focus on the 61 respondents who responded on behalf of a fruit business.

Table 1 shows the responses by sector for the 61 respondents who responded on behalf of a business. This represents approximately 30 per cent of the industry operators. The return rate was sufficiently high for the responses to have strong statistical validity.

Table 1: Survey Response Summary – responses on behalf of a business

Sector	No of responses	No of businesses in Tas	% of sector
Berries	16	56	29%
Pome fruit	27	99	27%
Cherries	32	50	64%
Summer stone fruit	4	(not included as a separate item in the ABS statistics)	

Source: 81650 Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013.

These percentage figures for each sector are based on Australian Bureau of Statistics figures for the number of businesses in the industry and should be used only as a broad indication of response percentages, as 16 of the respondents indicated that they work in more than one sector of the industry, whereas the ABS counts only count each business once.

The 70 responses overall indicate a confidence interval of 95 per cent with a relative standard error of 9.79 per cent for those questions covered by all respondents. The 61 responses at an individual business level indicate a confidence interval of 95 per cent with a relative standard error of 10.85 per cent for those questions covered by those respondents. This means that we can be 95 per cent certain that our data is accurate, within a 10.85 per cent margin of error. That is, if our data shows that 63 per cent of medium sized fruit businesses in Tasmania are located in the south of the state, we can be 95 per cent certain that between 52 and 74 per cent of medium sized fruit businesses are located in the south.

Figures 1 and 2 provide a breakdown of survey responses by region. In relation to the overall responses, the highest numbers of responses were received from businesses in the south of Tasmania, and the smallest numbers were received from the north-west of the state.

¹ Note: Two responses had to be removed from the collated data, as it was clear during analysis that both were unintentionally submitted

Figure 1: Survey responses by region – All sectors combined

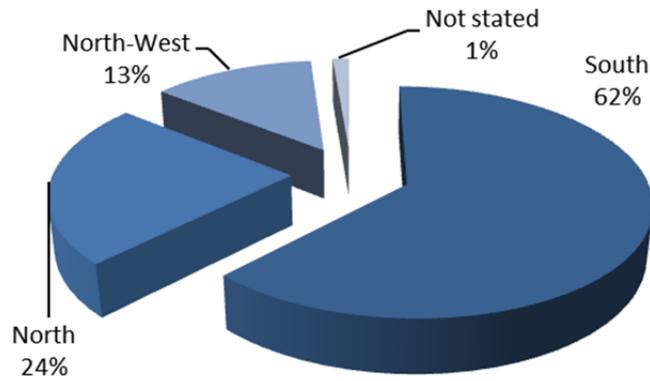


Figure 2 shows that:

- The primary fruit operations undertaken in the south of the state is pome fruit and cherry operations, making up 85 per cent of fruit operations in the south;
- Pome fruit and cherry operations are the primary fruit operations in the north-west of the state; and
- Berries and cherries are the main fruit operations in the north of the state.

Figure 2: Survey responses by region

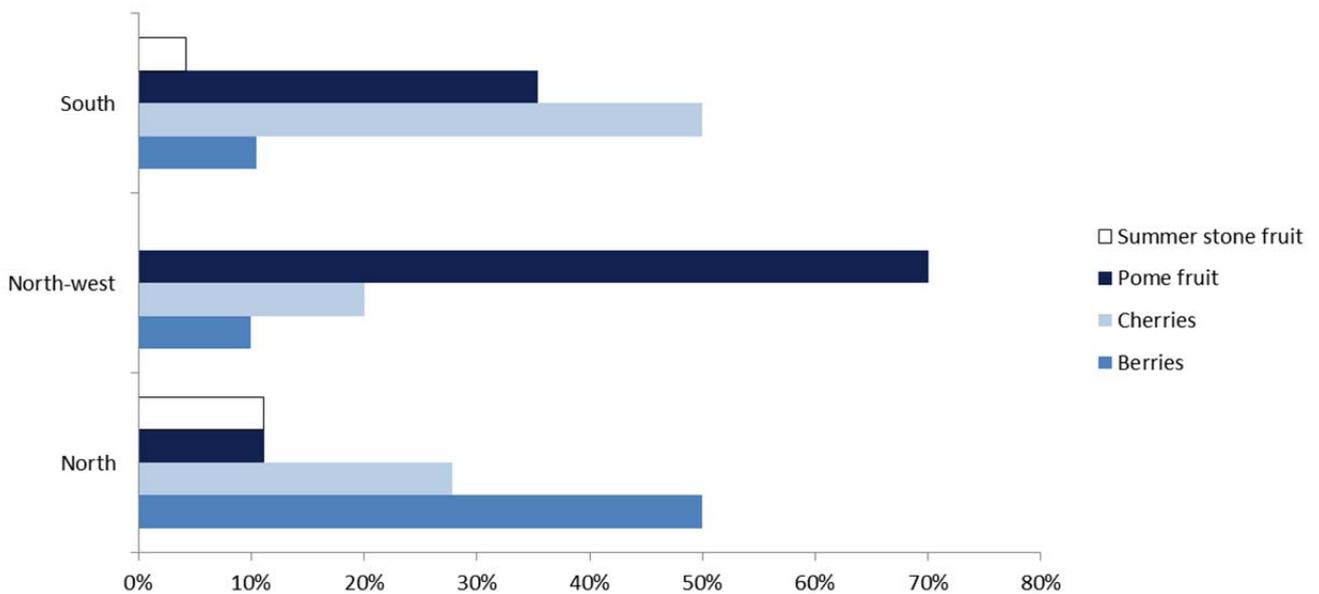


Table 2 shows the responses to the survey by fruit type and the region in which the business is located. It should be noted that three respondents did not specify their region in their response (two of these were located in the berry sector and one in the cherry sector).

Table 2: Responses by fruit type and region of Tasmania

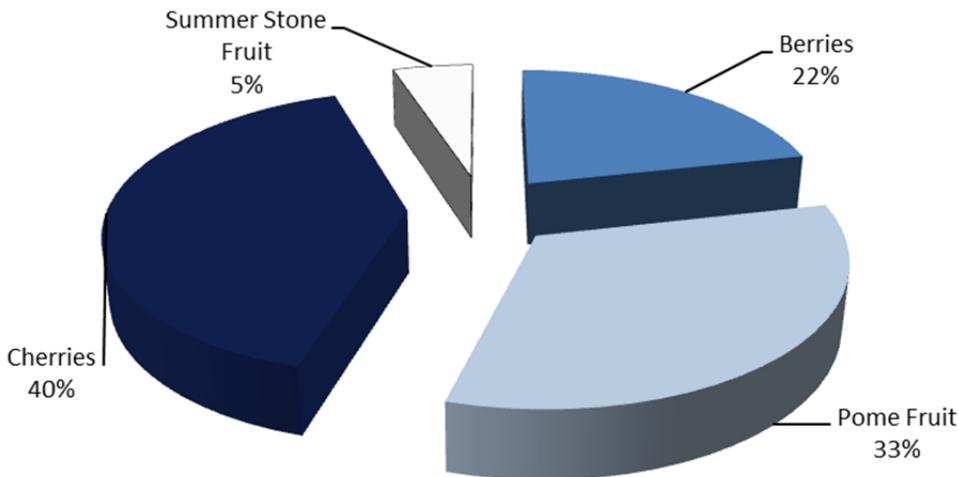
Fruit Types	North	North-West	South
Berries only	6	1	4
Pome Fruit only	0	5	10



Fruit Types	North	North-West	South
Cherries only	2	0	17
Summer Stone Fruit only	0	0	1
Pome Fruit and Cherries	0	2	6
Berries, Pome Fruit, Cherries and Summer Stone Fruit	2	0	1
Berries and Cherries	1	0	0
TOTAL	11	8	39

Aggregation of the responses into the total numbers of respondents involved in berries, pome fruit, cherries and summer stone fruit is illustrated in Figure 3. It indicates that of all respondents, 22 per cent work with berries, 33 per cent with pome fruit, 40 per cent with cherries and five per cent work with summer stone fruit.

Figure 3: Respondents involved in each fruit type



1.2.2 Round table attendance and individual interviews

Three roundtables were held across the State in the Huon Valley, Launceston and Turner’s Beach on Tasmania’s North-West Coast. A total of 22 industry participants were involved in the roundtable discussions and individual interviews:

- 10 in the south,
- 6 in the north and
- 6 in the north-west.

Participants represented large and small operations², a labour hire company and a career and pathways organisation.

The roundtables were organised by Fruit Growers Tasmania, who invited industry stakeholders on their mailing list to attend, and phoned targeted key stakeholders to encourage their participation.

Attachment B shows industry stakeholders who were involved in either roundtables or interviews.

² For the purposes of this report, and unless otherwise specified, small business= 1-25 employees; medium business= 26-75 employees; large businesses= 76+ employees.



2 Skills Issues/ Barriers – Desktop Research

Prior to developing the industry survey, a desktop review was undertaken of the national AgriFood environmental scan and relevant Tasmanian skills plans and workforce industry plans namely:

- Agriculture Industry Skills Plan – October 2011 – June 2014, TFGA & Skills Tasmania;
- Wine Sector Survey Report 2013, Workforce Planning Australia for Wine Tasmania;
- Tasmanian Wine Sector Workforce Development Plan, June 2013, Wine Tasmania & Skills Tasmania;
- Small Business Skills Plan, December 2013, Skills Tasmania;
- Tasmanian Seafood Industry Workforce Plan, April 2013, Tasmanian Seafood Industry Council & Skills Tasmania; and
- Dairy Industry Skills Plan, August 2009, DairyTas & Skills Tasmania.

This review highlighted a number of principle skill drivers and barriers facing the industry, which are detailed in Table 3. Where appropriate, these skill drivers and barriers are linked to the key insights outlined in the following sections.

Table 3: Fruit Industry Skills Issues/Barriers

Issue/Barrier	Description
Skill Drivers	
<p>Need to develop business management, leadership and entrepreneurial capabilities</p>	<p>The AgriFood Environmental Scan notes that:</p> <p><i>Our once pyramidal industry – comprising owners and a mass of low level operators – is becoming diamond in shape as technology and automation continues to remove low-skilled job roles and a new breed of technicians, para-professionals and specialist contractors grow to form a critical, highly capable broad band of workers.³</i></p> <p>This shift means that industry is shifting towards higher skill requirements, particularly in terms of managing, leading and innovating.</p> <p>The Small Business Skills Plan indicated that:</p> <p><i>... [consultation] ...identified a genuine concern by small business operators that they do not possess the necessary business management skills to help their business grow.⁴</i></p> <p>The Agriculture Industry Skills Plan observes that:</p>

³ AgriFood Environmental Scan 2013, p. iv

⁴ Small Business Skills Plan, p. 3



Issue/Barrier	Description
	<p><i>Increasing farm size, continuing corporatisation and the vision for increased value-adding in Tasmanian agriculture will all require improved business management and marketing skills.</i>⁵</p> <p>Similarly, the Dairy Industry Skills Plan acknowledges that:</p> <p><i>... dairy farm businesses need access to high quality management level skill development opportunities that help them keep abreast of innovative and current management and technological advances and maximise their competitive advantage in the market place.</i>⁶</p>
<p>Need for upskilling in new practice and new knowledge being driven by:</p>	
<p>– technological change;</p>	<p>Changes in technology pervades the industry and is resulting in a need to upskill the existing workforce as well as requiring higher levels of skill and knowledge for new entrants to the industry workforce.</p> <p>The AgriFood Environmental Scan observes this has implications for the industry workforce structure:</p> <p><i>Our once pyramidal industry – comprising owners and a mass of low level operators – is becoming diamond in shape as technology and automation continues to remove low-skilled job roles and a new breed of technicians, para-professionals and specialist contractors grow to form a critical, highly capable broad band of workers.</i>⁷</p>
<p>– changing market conditions</p>	<p>The AgriFood Environmental Scan identifies a wide range of market influences that are impacting on the agrifood sector generally, most of which are likely to have some relevance for the Tasmanian fruit industry:</p> <ul style="list-style-type: none"> • Increasing opportunities in and connections to markets in Asia as the Asian middle classes become wealthier and expand; • Pressures to improve global food security through increased production, affordability and distribution of food; • The impact of trade agreements in opening up new markets; and • The opportunities for increased exports as due to

⁵ Agriculture Industry Skills Plan 2011-2014, p. 8

⁶ Dairy Industry Skills Plan 2009, p. 8

⁷ AgriFood Environmental Scan 2013, p. iv

Issue/Barrier	Description
	<p>increased pressure on global water supplies which force countries to increase food imports.</p> <p>In a similar vein, the Agriculture Industry Skills Plan notes that:</p> <p><i>Markets are continuously changing and the position held by Tasmanian agriculture in the value chain is undergoing key transitions (e.g. from commodity-centred to include fresh market, high value, value-added and high nutritional content product). Consumer preferences are also changing in line with demographic changes in both Australian and global populations.⁸</i></p> <p>The Dairy Industry Skills Plan also observes</p> <p><i>Continual improvement of the skill base of the farm workforce is essential if the dairy industry is to increase its productivity, profitability and competitiveness in national and international markets.</i></p> <p><i>It is particularly important in an environment where a range of industry trends are changing the skill requirements and career pathways in the industry.⁹</i></p>
<p>– changing production conditions</p>	<p>The AgriFood Environmental Scan identifies a wide range of external influences that are impacting on the agrifood sector generally, most of which are likely to have some relevance for the Tasmanian fruit industry:</p> <ul style="list-style-type: none"> • The impact of trade agreements in increasing the complexity of export rules – with subsequent impacts on internal business management and supply chain capability; • The impact of the risks posed by climate change to production systems and capability; • Impacts on production arising from efforts to reduce the loss of biodiversity; • The need to maintain or increase Australia’s biosecurity measures, particularly to sustain a reputation as a reliable, high quality supplier and a ‘disease free’ status; • The impact of Australian agricultural related innovation and research activities; • The impact on costs arising from implementation of the National Broadband Network; • The impact of the increasing opportunities posed by social media, particularly in an enabling role in building

⁸ Agricultural Industry Skills Plan 2011-2014, p. 8

⁹ Dairy Industry Skills Plan 2009, p. 7



Issue/Barrier	Description
	<p>the skills and knowledge base of industry;</p> <ul style="list-style-type: none"> • The rise of ‘Cloud labour’, which heralds a shift in how industries recruit labour – e.g. Clickworker, Mobileworks, Freelancer.com, oDesk etc.; • The advent of ‘crowdsourcing’ (i.e. distributed problem solving online) as a tool for generating innovation – particularly for micro/small companies; • Dealing with today’s highly technology savvy internet generations (iGeneration) – which requires shifts in methods of working, recruitment methods, etc.; • The need to continually improve business management skills to support world class business management and supply chain capabilities; and • The impact on the agrifood industries of a range of market or government policy related or externally driven (e.g. climate change, aging workforce etc.) structural changes in the Australian economy.
<p>Role of VET in dissemination of research findings, innovative practice and technologies.</p>	<p>The AgriFood Environmental Scan implies that the training sector has a role to play in speeding publicly funded research findings to the agrifood sector, noting that:</p> <p><i>Paraprofessional/ technician job roles, which are responsible for the bulk of application of new practice and knowledge, are trained through the VET sector. It is at key intervals during their training that trainers and researchers/extension officers from the co-funded R&D sector must partner to provide context, theory and application in one learning process and enable students to spearhead dissemination and application back at the workplace.¹⁰</i></p>
<p>Skill and Workforce Barriers</p>	
<p>Training Capacity</p>	<p>The AgriFood Environmental Scan observes that the capacity of RTOs to meet industry requirements faces a range of challenges:</p> <p><i>Compliance costs, marketisation of the sector and reduced funding levels are forcing RTOs to make hard business decisions to retain profitability and are already impacting on the provision of agrifood qualifications to several sectors, regional locations and thin markets.¹¹</i></p> <p>The Agriculture Industry Skills Plan identifies the challenge, stating that:</p>

¹⁰ AgriFood Environmental Scan 2013, p. v

¹¹ Ibid, p. iv

Issue/Barrier	Description
	<p><i>It is clear from the consultations that, from the industry's perspective, there is a need for improved collaboration between training providers and industry to improve the relevance and accessibility of training options.</i>¹²</p> <p>Similar sentiments can be found in the Dairy Industry Skills Plan.¹³</p>
Worker recruitment and retention	<p>The Agriculture Industry Skills Plan indicates that:</p> <ul style="list-style-type: none"> • Raising the importance of worker retention strategies is critical in an environment where the current workforce is aging and shrinking and labour shortages continue. • There is concern that agricultural industries generally have an image problem, which impacts on its ability to attract new workers and retain existing ones. • There is a need to better align training pathways with industry requirements; and • There is a need to improve the collaboration between training providers and industry to improve the relevance and accessibility of training options.
Demand for skill sets rather than qualifications	<p>The AgriFood Environmental Scan identifies that the agricultural industry demonstrates a strong demand for skill sets rather than full qualifications. This <i>'...remains the single most commonly and strongly voiced issue raised by industry and the most frequently cited blockage faced by training providers in attempting to respond to enterprise needs.'</i>¹⁴</p> <p>The Scan states that:</p> <ul style="list-style-type: none"> • Agrifood qualification completion rates have ranged between 25-27 per cent over the last six years. When surveyed as part of the national data collections, over 80 per cent of those students that have not completed their qualification confirm that they have fully or partly achieved their main reason for training, and further reinforce the position of industry • The refusal to acknowledge incremental learning as a legitimate strategy for building human capital and maintaining productivity levels of a rapidly ageing workforce is cited as one of the biggest blockages to building a competitive workforce ready for the so-called

¹² Agriculture Industry Skills Plan 2011-2014, p. 5

¹³ Dairy Industry Skills Plan 2009, p. 8

¹⁴ Ibid, p. 24

Issue/Barrier	Description
	<p>Asian century.</p> <p>The demand for skill sets was raised in the Tasmanian Wine Sector Workforce Development Plan, which stated:</p> <p><i>The survey of wine producers indicates a strong demand for skill sets training, for the benefit of both permanent and seasonal staff.</i>¹⁵</p> <p>Further, the Small Business Skills Plan identifies that:</p> <p><i>...research has shown that this [the small business] sector typically values coaching, mentoring and short relevant courses, but does not value accredited training to a high degree, other than in the traditional trades and where it is required for licencing.</i></p>
<p>Competition for labour</p>	<p>The AgriFood Environmental Scan observes that labour competition exists with other sectors, particularly the minerals and resources sector and that the:</p> <p><i>...existing challenges of securing and retaining a skilled workforce are compounded by few companies being able to pay comparable wages for job roles with transferable skills.</i>¹⁶</p>

¹⁵ Tasmanian Wine Sector Workforce Development Plan 2013, p. 16

¹⁶ Ibid, p. 22



Issue/Barrier	Description
Lack of career pathways	<p>The AgriFood Environmental Scan acknowledges that:</p> <p><i>‘An ageing workforce, outdated image, regional and remote focus all contribute to a perception that makes attraction of a skilled workforce problematic. We have world class companies that produce world’s best food, fibre and performance animals, but school leavers contemplating a career have grown up with an industry that has hit the headlines for all the wrong reasons.’¹⁷</i></p> <p>There is recognition of this barrier, with the Agriculture Industry Skills Plan observing that:</p> <p><i>Industry members understand the need to attract new sections of the Australian workforce to agriculture, and develop career pathways and conditions that reflect the increasing diversity of the future workforce...¹⁸</i></p> <p>The Agriculture Industry Skills Plan goes on to identify that:</p> <ul style="list-style-type: none"> • Information about opportunities for careers in agriculture is often lacking, unfocused, or not up-to-date regarding current trends; • Access to resources, programs and training systems seems complex and difficult; and • Business owners and managers (often farmers) are uncertain about the value for money of training options.

¹⁷ AgriFood Environmental Scan 2013, p. iii

¹⁸ Agriculture Industry Skills Plan 2011-2014, p. 5



3 Businesses in the Tasmanian fruit industry

Key insights

- The fruit industry is polarised in terms of operation, size and location:
 - There are a few businesses with large workforces and many with medium and small workforces. The industry survey found that:
 - ◆ Those respondents who had summer stone fruit operations tend to be small businesses - employing 25 persons or less.
 - ◆ Those who had pome fruit operations and/or cherry operations tend to be medium sized businesses, having between 26 and 75 employees.
 - ◆ Those who had berry operations tend to be either small or large sized businesses.
 - There is some variation in business size by region, with the survey showing that:
 - ◆ Almost two thirds of businesses in the south are small businesses; and
 - ◆ Around half the businesses in the north and north-west are medium sized businesses.
- While nearly all businesses responding were involved in fruit growing, the large fruit businesses tended to be more diversified in the operations they undertook. The survey found that:
 - A greater proportion of large businesses undertake all areas of operations compared with small or medium sized businesses; and
 - Small and medium sized businesses undertake a similar diversity of operations.
- Feedback from the roundtables and individual interviews indicate that the underlying business model for all fruit industry operations is clearly focused on niche, high quality, highly branded products.
- A significant majority of businesses in all sectors of the industry, except summer stone fruits, expect to grow over the next five years:
 - Growth expectations were strongest with large fruit businesses;
 - Growth expectations were strongest for those businesses involved with cherries or berries; and
 - Growth expectations were strongest in the northern and southern regions.
- The survey indicated that two of the top three challenges for fruit businesses relate to workforce issues:
 - The greatest challenge was labour costs, with this being reinforced in the roundtables where participants indicated that Tasmania was one of the highest cost producers in the world.
 - The third ranked challenge was the availability of appropriately skilled labour. This shows that the industry is focused on the availability of skilled labour, rather than labour more



generally.

Implications for Workforce Planning

- The specific business profile of the fruit industry (i.e. differences in the scale, location and fruit type) need to be considered when planning for future skills and workforce needs of the industry and developing training programs. There is likely to be different workforce needs and issues for operations depending on their size/location, for example:
 - Smaller operations are likely to have more generalist skill needs for their workforce; and
 - Larger operations are likely to have narrow, more specific skill needs for their workforce due to a higher degree of labour specialisation.
- The growth in production expected by the fruit industry is likely to drive an increasing demand for skills and labour:
 - Importantly, the fact that skilled labour was flagged as a key challenge and not the availability of labour more generally indicates that it is the availability of the skills required by industry that is likely to be the factor that limits the ability of the industry to achieve growth expectations.

3.1 ABS data

This section provides demographic information in relation to the Tasmanian fruit industry, primarily using ABS Census data from the Census collected during August 2011.

Discussions were held with Reference Group members regarding the most appropriate source of demographic information for the fruit industry, and it was agreed that data other than census data is not considered appropriate, as it does not go into enough detail about specific industry sectors. The one exception to this is the ABS Counts of Australian Businesses, which provides a broad indication of the size of the fruit industry in Tasmania.

3.1.1 Business Counts

Table 4 details the numbers of businesses in the various industry subsectors and Figure 4 illustrates the sizes of the businesses in the Tasmanian fruit industry, according to industry sector. Collectively, this shows that in 2013, there were a total of 205 berry, pome and stone fruit growing businesses in Tasmania.

Table 4: Numbers of businesses in the Tasmanian fruit industry

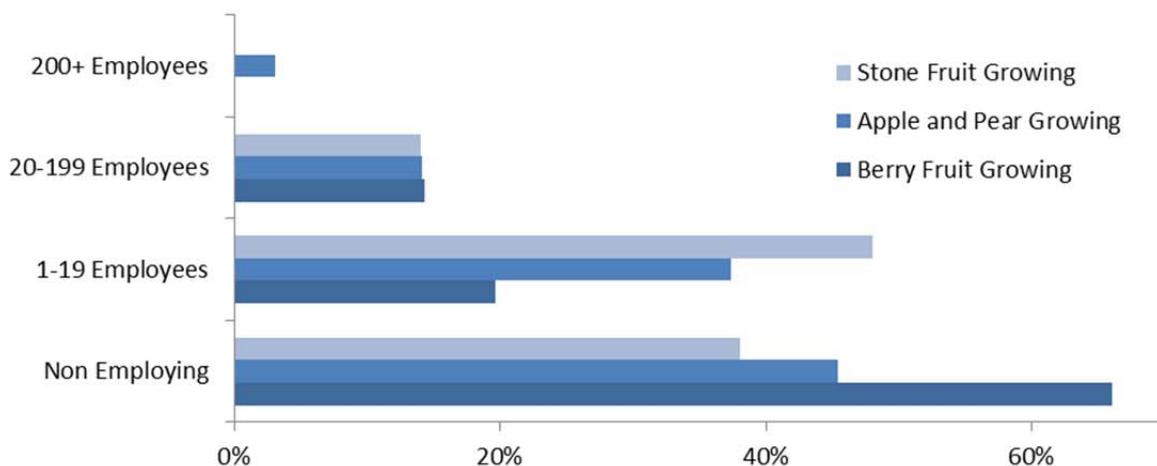
ANZSIC Industry Label	Non Employing	1-19 Employees	20-199 Employees	200+ Employees	Total
Apple and Pear Growing	45	37	14	3	99
Stone Fruit Growing	19	24	7	0	50
Berry Fruit Growing	37	11	8	0	56
TOTAL	101	72	29	3	205

Source: 81650 Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013.



Almost half of the businesses in the industry were non-employing businesses, and 35% were small businesses, employing between one and 19 employees.

Figure 4: Fruit industry businesses - numbers of employees



Source: Australian Bureau of Statistics, 81650 Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013.

3.2 Survey data

Figure 5 shows the business sizes of the respondent businesses according to the various fruit varieties. It shows that, of the responses to the survey:

- those who grow summer stone fruit and berries tend to be small businesses; and
- those who grow pome fruit and cherries tend to be medium sized businesses; and

Figure 5: Business sizes of responses – by fruit type

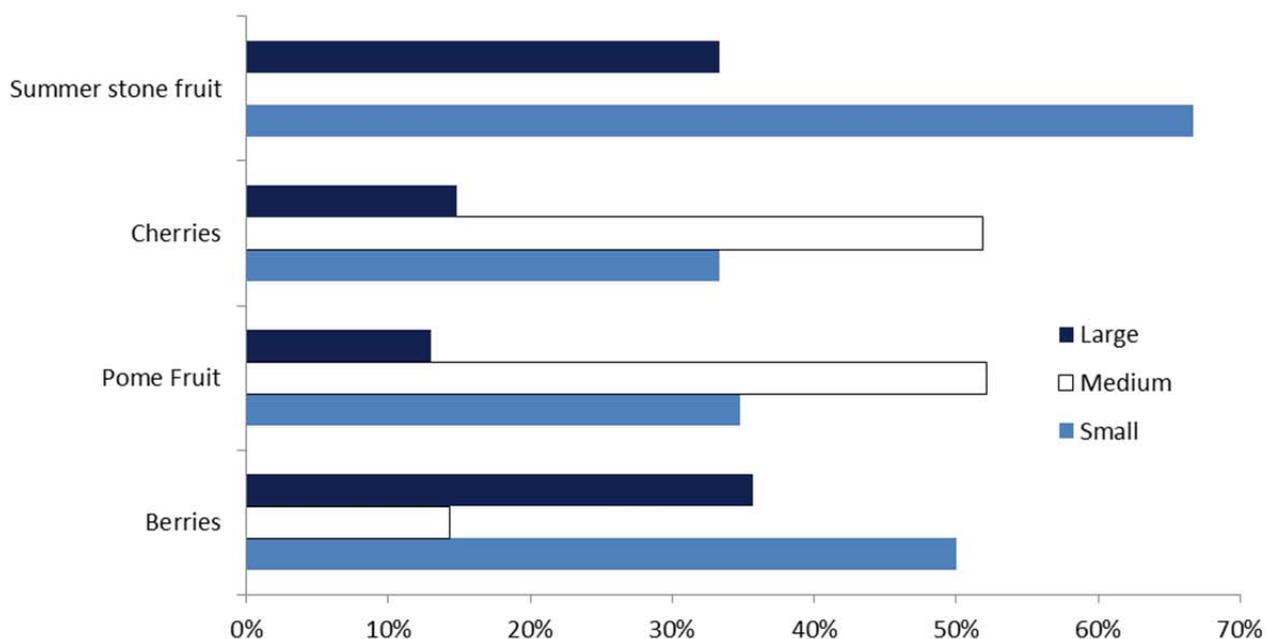


Figure 6 shows the proportions of respondents according to business size¹⁹. It shows that small and medium sized businesses make up the greatest proportion of businesses, at 33 and 34 per cent respectively. Note that 20 per cent of respondents did not provide information in relation to business size. This picture is slightly different to that shown in the ABS business counts, which indicated that businesses with either less than 20 employees, or non-employing businesses, make up around 70 per cent of the businesses.

Figure 6: Responses according to business size

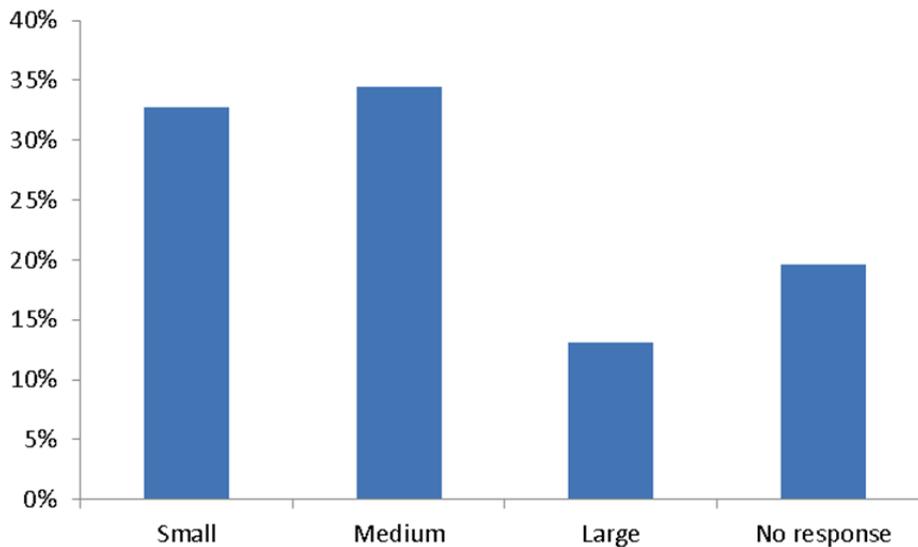


Table 5 shows the business sizes of respondents based on their location. It shows that:

- 64 per cent of businesses who responded from the north of the state were small businesses;
- 50 per cent of those responding from the north-west were medium sized businesses; and
- 50 per cent of those responding from the south were medium businesses.

Table 5: Business size of respondents based on location

Business Size	North	North-West	South
Large	18%	33%	13%
Medium	18%	50%	50%
Small	64%	17%	38%
Total	100%	100%	100%

When asked what type of business respondents work in, responses revealed no particular differences between business type according to the region in which the business is located. All businesses undertake multiple roles and are engaged in a broad range of activities covering the supply chain of fruit, ranging from growing fruit, farm gate sales, sales and marketing to transport. Table 6 shows the business types respondents are engaged in, comparing small, medium and large businesses. There are some differences between the business types according to business size, as illustrated in Table 6. It shows that:

¹⁹ Small business= 1-25 employees; Medium business= 26-75 employees; Large businesses= 76+ employees.



- A greater proportion of large businesses than small or medium businesses undertake all areas of operations, with the exception of 'support vendor', a role not undertaken by any respondents; and
- Small and medium sized businesses undertake similar levels of operations.

It should be noted that no support vendors responded to the survey.

Table 6: Types of businesses/operations undertaken by respondents according to business size

Business Type	Small	Medium	Large
Fruit growing	95%	95%	100%
Farm gate sales	40%	38%	50%
Orchard operations	50%	62%	63%
Packhouse operations	35%	48%	63%
Processing	0%	10%	50%
Plant material/ nursery	20%	19%	25%
Support vendor	0%	0%	0%
Sales and marketing	25%	38%	50%
Transport	10%	14%	25%

Some small differences between the operations undertaken by the different fruit types also emerge from the responses. These are shown in Table 7. It can be observed that:

- Berry growers and summer stone fruit operations are more involved in processing, plant material/nursery and transport than are the pome fruit and cherry sectors; and
- Pome and summer stone fruit operations are significantly more involved in sales and marketing and transport than berry and cherry operations.

Table 7: Types of businesses/operations undertaken by respondents according to fruit type

Fruit Type	Berries	Pome Fruit	Cherries	Summer Stone Fruit
Fruit growing	88%	96%	100%	100%
Farm gate sales	41%	46%	50%	75%
Orchard operations	29%	69%	66%	50%
Packhouse operations	47%	50%	44%	50%
Processing	24%	15%	16%	25%
Plant material/ nursery	24%	19%	16%	50%
Support vendor	0%	0%	0%	0%
Sales and marketing	29%	42%	28%	50%



Fruit Type	Berries	Pome Fruit	Cherries	Summer Stone Fruit
Transport	24%	12%	13%	50%

Respondents were requested to provide information regarding the amount of fruit produced, farm size and turnover for the 2013/14 financial year. Analysis of the responses to these questions revealed that the data is not reliable. Table 8 summarises the data available from other sources regarding the value of agricultural commodities produced, by sector.

Table 8: Fruit turnover

	Value of agricultural commodities produced (\$) ²⁰
Berries	16.1m
Pome Fruit	32.2m
Cherries	28.4m
Summer Stone Fruit	8.9m
Total	85.6m

Table 9 shows that 49 businesses (80 per cent) responding to the survey specialise in a single fruit type, while 12 businesses (20 per cent) grow multiple fruit varieties. Analysis of the multiple fruit producing businesses reveals that 75 per cent of these are small businesses, mostly located in the south of Tasmania.

Table 9: Responses by fruit type

Fruit Types	Numbers of respondents
Berries only	13
Pome Fruit only	15
Cherries only	20
Summer Stone Fruit only	1
Pome Fruit and Cherries	8
Berries, Pome Fruit, Cherries and Summer Stone Fruit	3
Berries and Cherries	1
TOTAL	61

²⁰ Department of State Growth, Food and agriculture – fruit. Sector summary 2014. Accessed 8 September 2014 http://www.stategrowth.tas.gov.au/__data/assets/pdf_file/0009/89541/Fruit.pdf

When asked what their expectations of the next five years were in terms of whether their fruit production would increase, stay the same or decrease, all sectors apart from the summer stone fruit growers expect production to increase. This is illustrated in Figure 7.

Figure 7: Expectations for fruit production – next five years

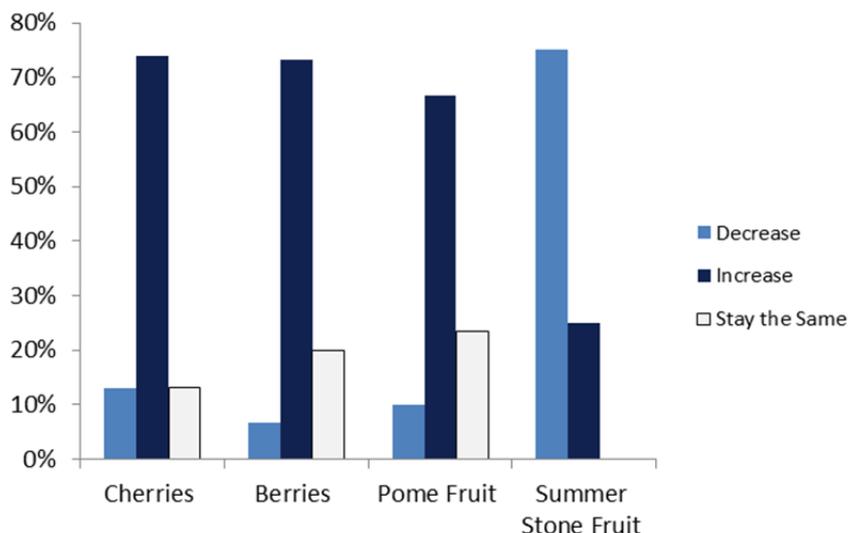


Table 10 shows respondents expected increase or decrease in fruit production over the next five years, by business size, and shows that all fruit businesses, regardless of size, expect their production to increase.

Table 10: Expectations for fruit production over the next 5 years – by business size

5 Year Fruit Production Expectation	Increase	Decrease	Stay the Same	Total
Small	64%	14%	23%	100%
Medium	71%	4%	25%	100%
Large	91%	0%	9%	100%

Table 11 shows respondents expected increase or decrease in fruit production over the next five years, by region, and shows that production is expected to increase for all regions of Tasmania, with the north-west reporting slightly more conservative expectations.

Table 11: Expectations for fruit production over the next 5 years – by region

5 Year Fruit Production Expectation	Increase	Decrease	Stay the Same	Total
North	78%	11%	11%	100%
North-west	67%	0%	33%	100%
South	73%	9%	18%	100%

Additionally, respondents consistently reported that over the next five years, they plan to expand their businesses. These plans are reflected in the expectation that production will increase.

Table 12 summarises the responses to the question of what the three key challenges for business expansion reveals that the top three key challenges are, from highest to lowest:

- Labour costs;



- Distribution, including freight costs; and
- Availability of appropriately skilled labour.

It is notable that availability of labour was not flagged as a key challenge, which indicates that it is the availability of managers and team leaders that is the primary challenge, which was identified as an issue in the roundtables and in the survey (refer Section 6.2).

Table 12: Three key challenges for business expansion

The Challenges	Percentage of respondents
Labour costs	61%
Distribution, including freight costs	49%
Availability of appropriately skilled labour	28%
Meeting regulatory requirements	25%
Meeting demand for product	20%
Energy costs	20%
High level of competition	15%
Finding new markets	15%
Improving quality	13%
Foreign currency fluctuations	10%
Availability of labour	10%
Taxation	5%

Analysis of the responses to the question of the top three challenges for business expansion reveal that there are no significant differences between regions of the state. However, analysis of the data reveals some differences in responses according to the size of the business, as illustrated in Table 13. It shows that:

- For small businesses, the key challenges are labour costs, distribution and a high level of competition;
- For medium businesses, the key challenges are labour costs, distribution and energy costs (with meeting demand for product on the same level); and
- For large businesses, the key challenges are: labour costs, availability of appropriately skilled labour, with distribution including freight costs and meeting regulatory requirements equal in third place.

Table 13: Three key challenges for business expansion – business size

The Challenges	Small	Medium	Large
Labour costs	55%	81%	75%
Distribution, including freight costs	50%	76%	38%
High level of competition	35%	5%	13%

Energy costs	30%	29%	0%
Availability of appropriately skilled labour	30%	24%	50%
Meeting regulatory requirements	30%	24%	38%
Improving quality	30%	5%	0%
Finding new markets	25%	10%	25%
Meeting demand for product	20%	29%	25%
Foreign currency fluctuations	15%	14%	0%

3.3 Round tables and further consultations

An emerging theme was that the fruit industry is becoming increasingly corporatised, with a number of businesses making large investments in substantial fruit operations. For example, officers from the Department of State Growth indicated that there has been a rationalisation of the industry over a long period of time, but which has also more recently seen increased production scale and the arrival of larger international producers in the berry sector. In addition, there has been greater diversification of operations in terms of fruit varieties and investment in downstream processing.

At all roundtables operators commented that Tasmania is the highest unit cost producer of fruit in the world, with labour costs a significant challenge for operators. As a result the underlying business model for their operations is clearly focused on niche, high quality highly branded product – an issue that affects every grower and which necessitates constant brand maintenance and development.

4 The fruit industry workforce

Key insights

- Key characteristics of the fruit industry workforce include:
 - The smaller the business, the older the age profile of its workforce;
 - Almost half of the industry's workforce is in the South East region, (46 per cent of the fruit industry workforce in 2011);
 - The berry workforce is mainly located in the north-west, and north of the state;
 - The apple and pear workforce is focused mainly in the south east;
 - The stone fruit workforce is located mainly in the south;
 - The industry workforce is male dominated, comprising 64 per cent of the workforce.
 - The age profile of respondents is similar to that found in 2011, with the greatest number of respondents falling within the 45-54 age bracket;
 - Full-time work is the most prevalent work mode for the industry;
 - The industry is a multi-cultural employer, with a wide representation of nationalities working in the industry – predominately as part of the seasonal workforce. The industry relies significantly on 'backpacker' workers;
 - The larger the business the greater the number of managers and team leaders employed; and
 - The need for regulatory compliance based certification increases with the size of the business's workforce.
- Industry reliance on 'backpackers' for its seasonal workforce means that it is susceptible to any changes in visa arrangements.
 - For example, if visa arrangements were tightened, the supply of seasonal workers from this source could be expected to be reduced.
- Round table participants noted that the administrative and reporting requirements that businesses need to meet in relation to the employment of backpackers on visas can be confusing and cumbersome.
- There is evidence that the fruit industry's previously declining workforce is expected to rebound:
 - There is a general expectation that workforce numbers will increase over the next five years. This is in line with the expected increases in production.
- Larger businesses have significantly more demand for the following job roles:
 - Managers;
 - Team leaders;
 - Packhouse/packing workers;
 - Horticulturalists/Agronomists;
 - Processing operations workers; and



- Technicians.
- The increasing trend towards the corporatisation of the fruit industry and the increase in the size of businesses is likely to have a significant impact on the industry's demand for skills.
 - It is expected that this trend will see an increase in the demand for a variety of job roles.
 - It is also likely to see an increase in the demand for compliance based skills, both in terms of regulatory compliance and quality system compliance, as larger businesses indicate a greater need for occupational related licences.

Implications for Workforce Planning

- The older age profile of small fruit businesses suggests there may be a need for succession/exit planning for this cohort of the industry.
- The expected increase in the size of the workforce will require efforts to ensure that the increased demand for skills is appropriately prioritised and resourced by industry, government and the training system.
- There may be a need for communication strategies to ensure the Australian Government is aware of the importance for the industry of stable visa arrangements.
- In addition to expected industry growth, the increasing trend towards the corporatisation of the fruit industry and the increase in the size of businesses is likely to have a significant impact on the industry's demand for skills.
 - Importantly, it is expected that this trend will see an increase in the demand for skilled workers:
 - ◆ at management level - managers and team leaders;
 - ◆ at a technical level – horticulturalists, agronomists, technicians; and
 - ◆ at an operational level – packhouse/packing workers.
 - It is also likely to see an increase in the demand for compliance based skills.

4.1 ABS data

Table 14 shows that there were some 437 persons involved in the Tasmanian fruit industry in 2011, which is a decrease of 130 or 23% since the previous census in 2006. At a sector level, the number of persons in apple and pear growing fell by 30 percent, whilst the number of persons in stone fruit growing rose by 31 percent. Due to data definition issues, it is not possible to be definitive about what happened in the berry growing sector.

Table 14: Numbers of persons in the Tasmanian fruit industry

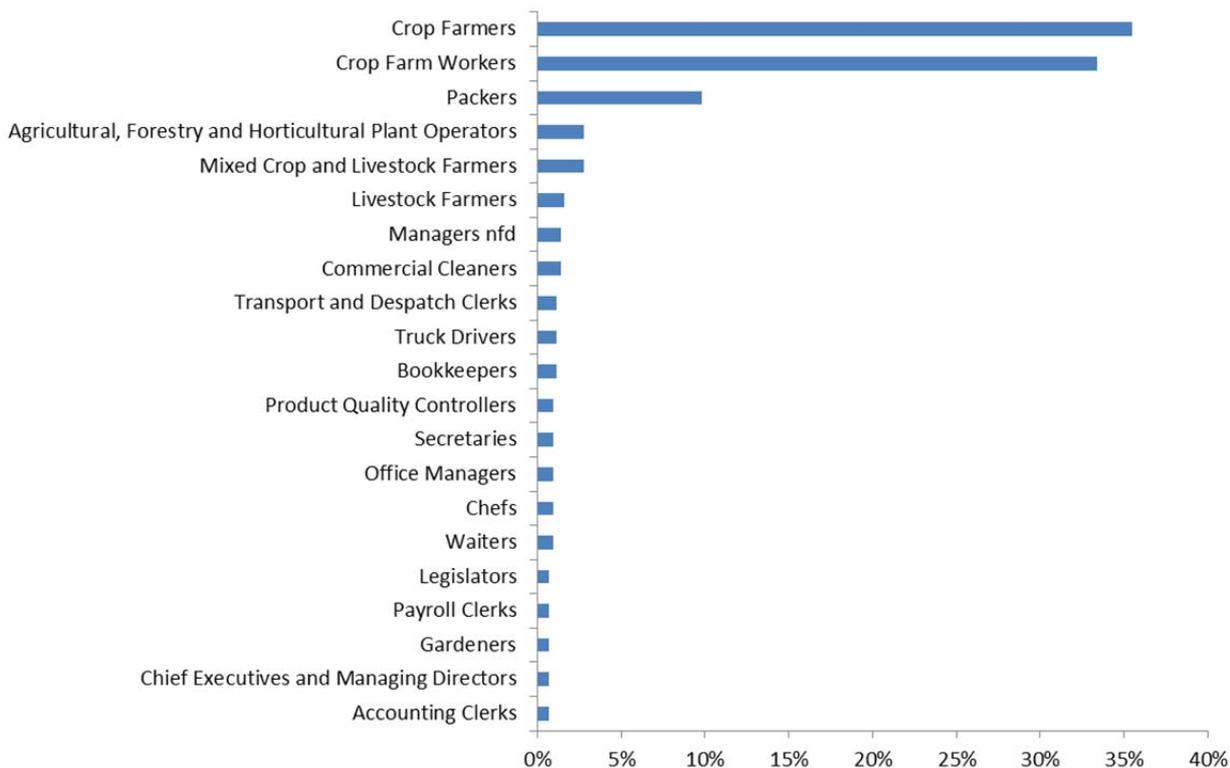
Sector	2006	2011	% Change
Apple and Pear Growing	350	249	-30%
Stone Fruit Growing	61	80	+31%
Berry Fruit Growing	n/a	108	n/a
Fruit Growing nec	156	n/a	n/a

TOTAL	567	437	-23%
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Source: Australian Bureau of Statistics, 2006 and 2011 Census of Population and Housing

Figure 8 shows the occupations that comprise the Tasmanian fruit industry workforce. These occupation titles are based on the ABS ANZSCO occupations. Crop farmers, crop farm workers and packers comprise almost 80 per cent of the workforce. Comparison of the occupation titles between the three sectors does not reveal great differences, with the exception that packers are only located in the apple and pear growing sector. Analysis of the 2006 census data in terms of the main occupations indicates that the occupational profile of the industry has not substantively changed.

Figure 8: Occupations in the fruit industry



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 15 shows the gender distribution of the fruit industry workforce. It shows that:

- Females are slightly over represented in the berry fruit growing sector;
- Males are over represented in the apple and pear growing and stone fruit growing sectors; and
- Males comprise 64 per cent of the workforce, and females comprise 37 per cent of the workforce.

Table 15: Gender distribution of the fruit industry workforce

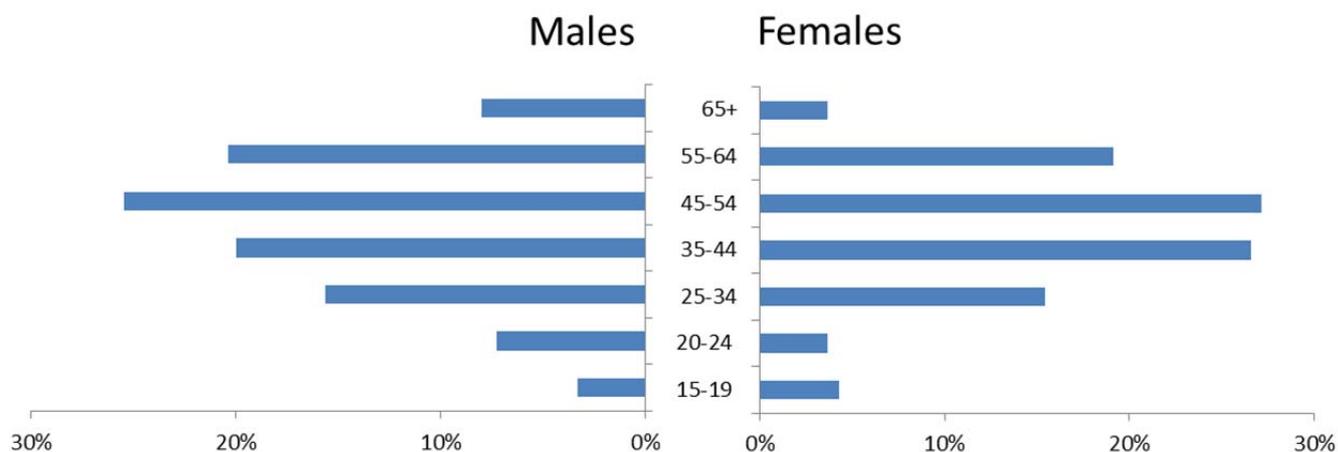
	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing	TOTAL
Males	49%	66%	71%	63%
Females	51%	34%	29%	37%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing



Figure 9 shows the distribution of the fruit industry workforce by gender and age. This illustrates that the male component of the workforce is slightly older than the female component, with a higher proportion of males aged 65 and over and a higher proportion of females aged between 15 and 35 years.

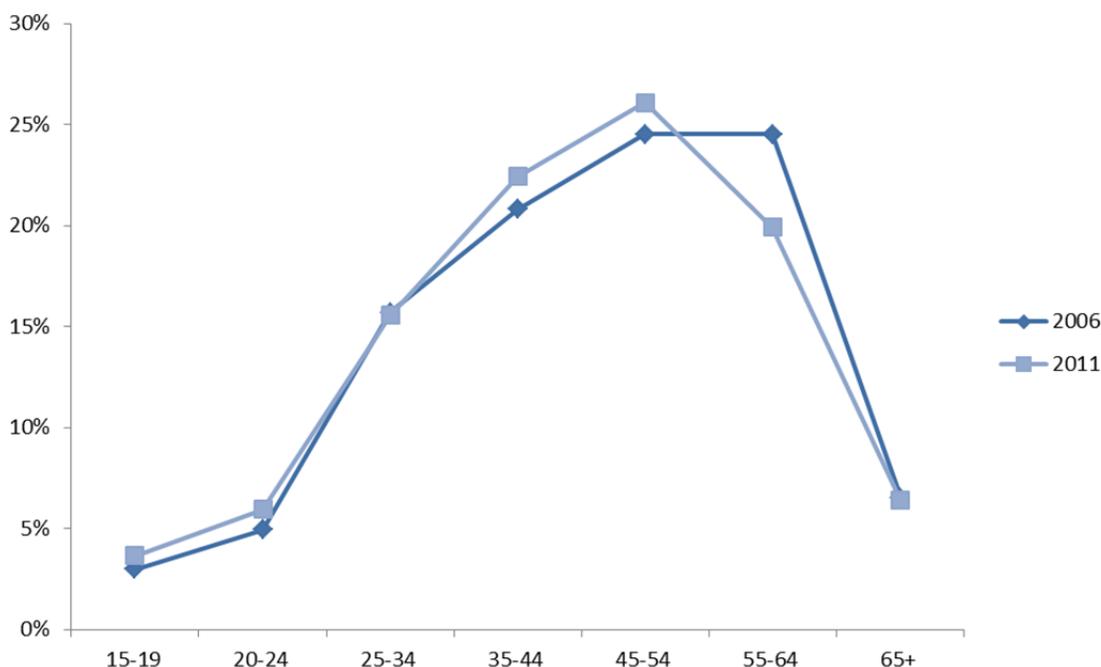
Figure 9: Distribution of Tasmanian fruit industry workforce by age and gender



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Figure 10 shows the age distribution of the fruit industry workforce in 2006 and 2011. It shows similar age patterns between the two years, the only real difference being an increase in the 35-44 and 45-54 year old population in 2011, and a decrease in the 55-64 year olds.

Figure 10: Age distribution of the fruit industry workforce - 2006 & 2011

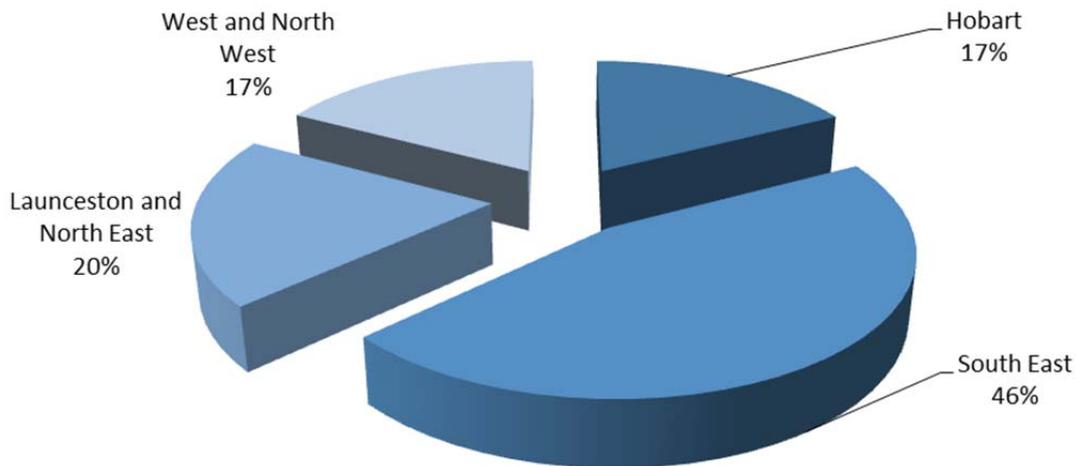


Source: Australian Bureau of Statistics, 2006 and 2011 Census of Population and Housing

Figure 11 illustrates the regional areas in which the fruit industry workforce is located. The region with the highest prevalence of fruit workers is the South East, which contained 46 per cent of the fruit industry workforce in 2011.



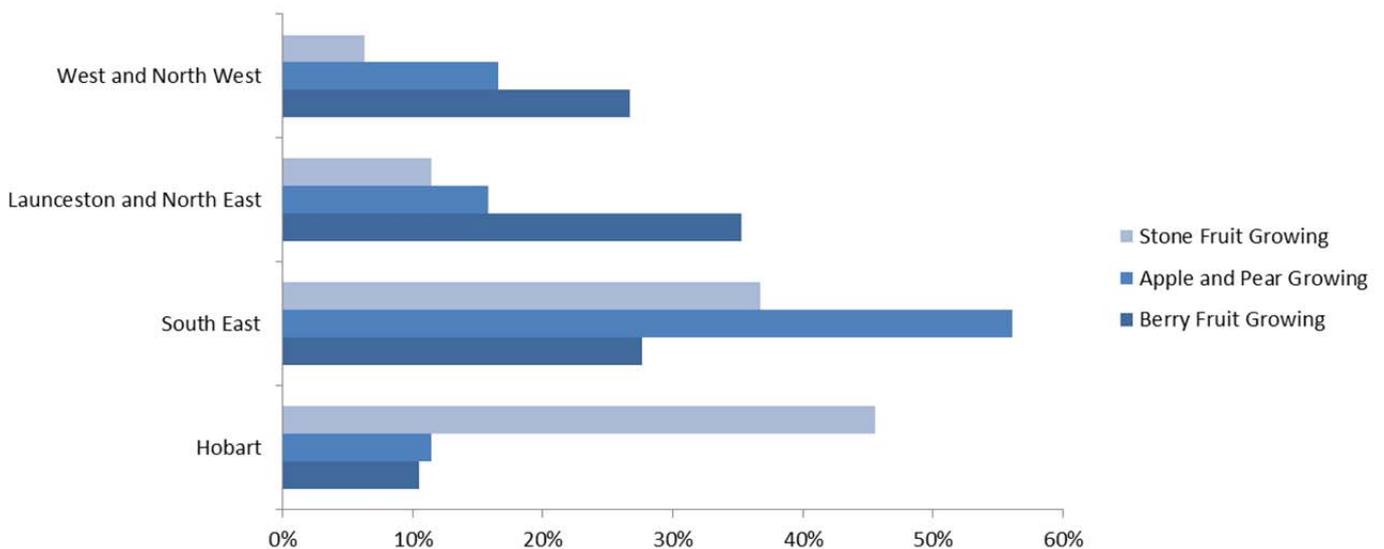
Figure 11: Regional Location - All Sectors



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Figure 12 shows the regional location of the fruit industry workforce, according to industry sector. It shows that berry fruit growing is mainly located in the west, north-west, north and north-east of the state; apple and pear growing is focussed mainly in the south east, and stone fruit growing is located mainly in the south of the state.

Figure 12: Regional Location – the sectors



Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 16 shows the employment structure of the fruit industry workforce. It shows that full time work is the most prevalent work mode for all three industry sectors.

Table 16: Fruit Industry Workforce – Employment type

	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing



	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing
Employed, worked full-time	55%	57%	49%
Employed, worked part-time	39%	36%	43%
Employed, away from work	6%	8%	8%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 17 shows the languages most commonly used at home for those industry members who are from a non-English speaking background. Northern European languages are the most commonly identified languages spoken.

Table 17: Fruit Industry Workforce – Origin of workforce participants with NESB

	Stone Fruit Growing	Apple and Pear Growing	Berry Fruit Growing	Total
Eastern Asian Languages	0%	3%	7%	3%
Northern European Languages	96%	92%	93%	93%
Southern European Languages	4%	3%	0%	3%
Not stated	0%	2%	0%	1%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 18 shows the countries of birth of the fruit industry workforce (where it is not Australia). The United Kingdom, Chinese Asia, New Zealand and Central America are the most prominent countries from which those working in the industry originate.

Table 18: Fruit Industry Workforce – Country of birth

	Stone Fruit Growing	Apple and Pear Growing	Berry Fruit Growing	Total
Central America	4%	2%	0%	2%
Chinese Asia (includes Mongolia)	0%	2%	6%	3%
Maritime South-East Asia	0%	2%	0%	1%
New Zealand	0%	3%	3%	3%
Northern America	0%	0%	3%	1%
Southern and East Africa	4%	0%	0%	1%
United Kingdom, Channel Islands and Isle of Man	0%	4%	5%	4%
Western Europe	8%	0%	0%	1%

	Stone Fruit Growing	Apple and Pear Growing	Berry Fruit Growing	Total
Not stated	4%	4%	5%	4%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

4.2 Survey data

Table 19 shows the gender distribution of respondents, and shows that 67 per cent of respondents to the survey were male and 15 per cent were female. Caution needs to be taken in discussing the significance of these figures, as 18 per cent of respondents did not specify their gender.

The 2011 ABS Census figures indicated that 63 per cent of the workforce is male and 37 per cent are female. The survey responses support this to an extent, where there are more males than females in fruit operations.

Table 19: Gender distribution of respondents

	Number of respondents	% of respondents
Males	41	67%
Females	9	15%
No response	11	18%

Figure 10 shows the age distribution of respondents. It shows similar age patterns to the distribution shown in the 2011 ABS Census data (refer Figure 10), and shows a peak in 45-54 year olds in the industry.

Figure 13: Age distribution of respondents

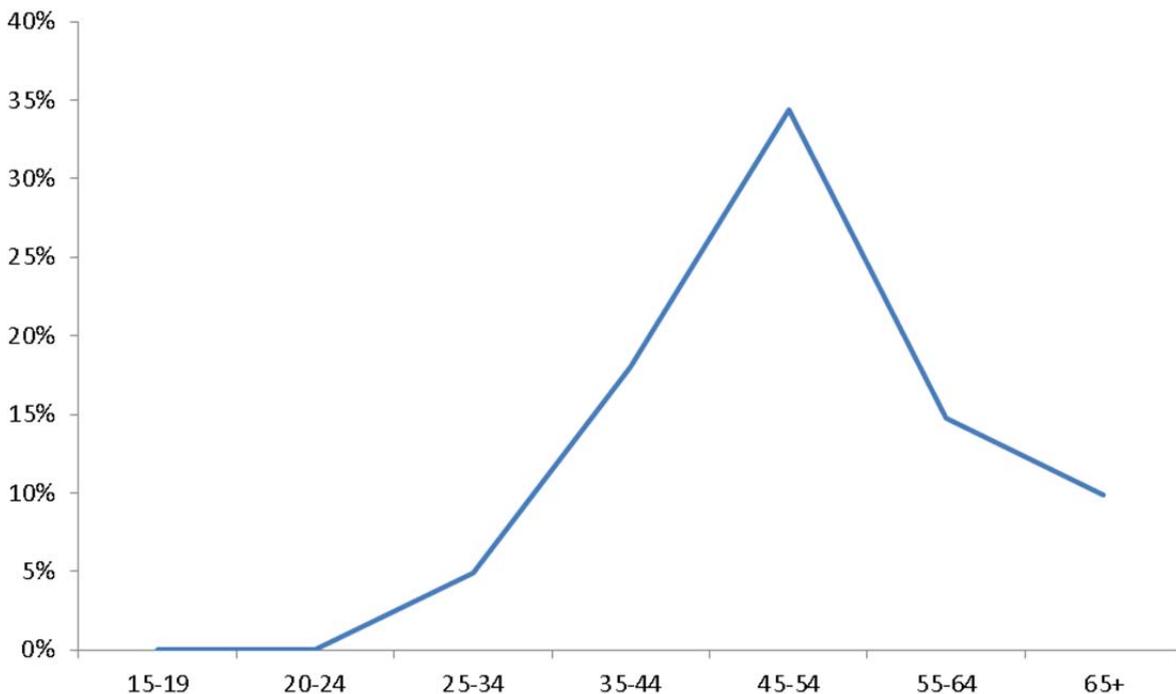


Table 20 shows the employment structure of respondents. It shows that full time work is the most prevalent work mode for respondents.

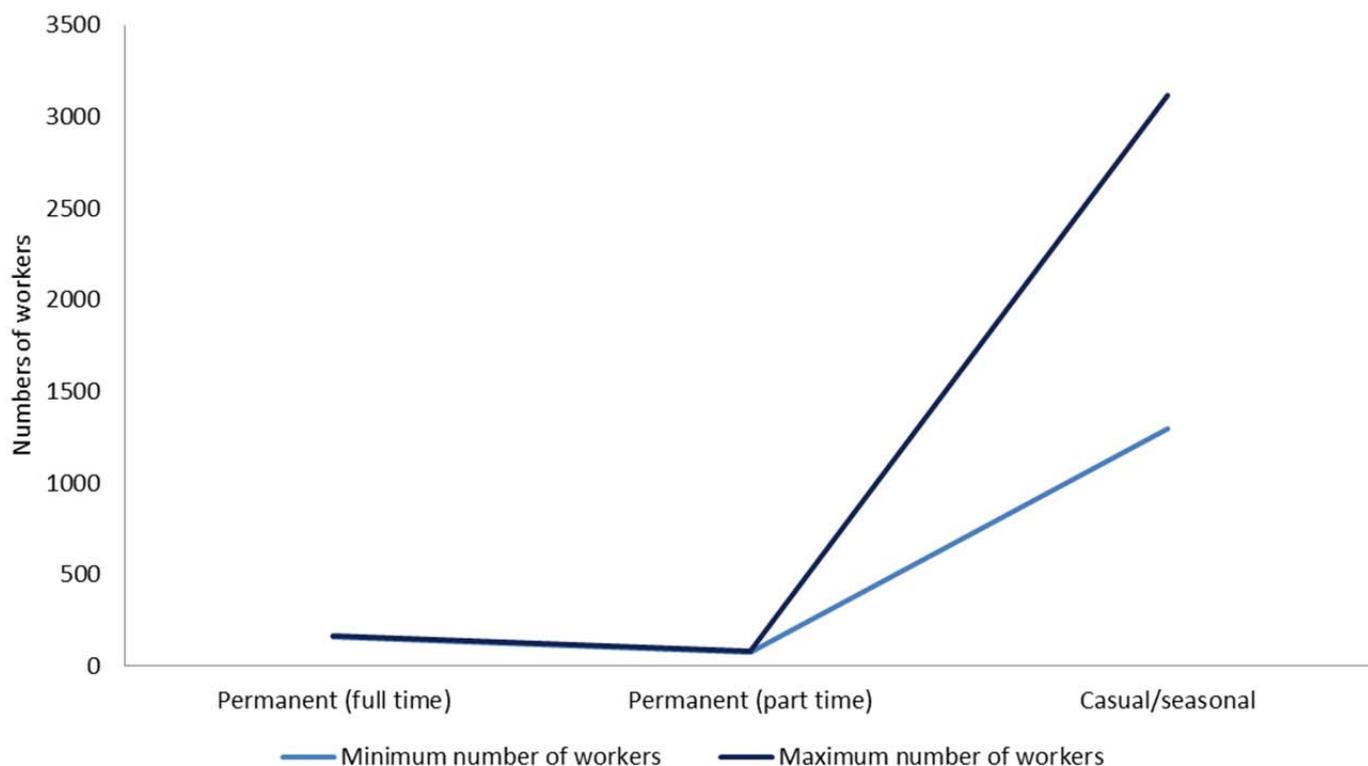
Table 20: Employment type of survey respondents

Employment type	% of respondents
Full time	70%
Part time	8%
No response	21%

Figure 14 illustrates the employment type of respondents' minimum and maximum numbers of workers during the 2013/14 financial year. It shows that:

- the permanent staff numbers did not vary much over the year;
- the numbers of casual/seasonal staff are significantly higher than permanent staff; and
- the numbers of casual/seasonal staff almost triple during harvest season

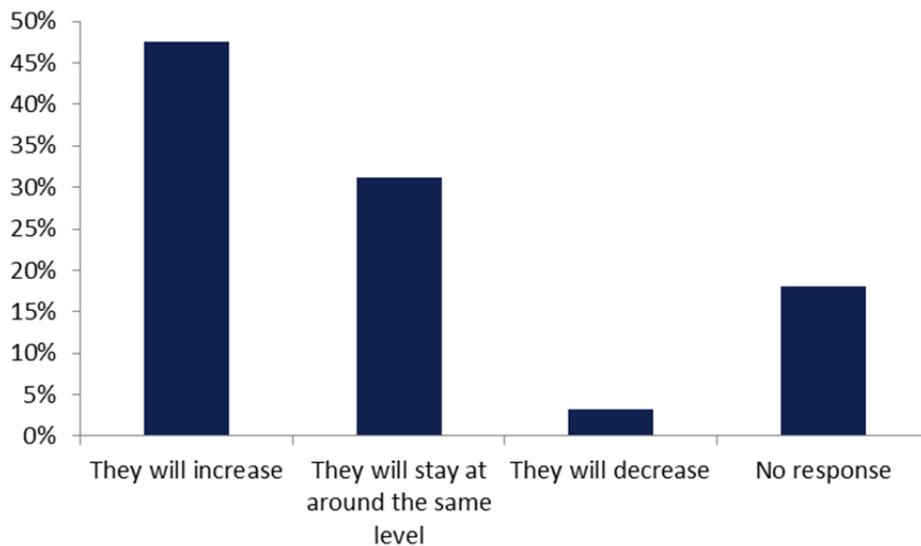
Figure 14: Employment type – minimum and maximum numbers of workers



When asked how their workforce numbers would change over the next five years, a general expectation of growth was reported. This expected growth is in line with the expected production increases. The expected workforce growth is illustrated in Figure 15.



Figure 15: Expected workforce growth



Analysis of the workforce growth expectations over the next five years in terms of the size of the respondent’s business reveals that the expectations are consistent across business sizes, with the only exception that the respondents who expected a decrease were small businesses. However, some regional differences in expected workforce growth emerge from the survey, as presented in Table 21:

- A higher proportion of respondents from the north of Tasmania expected an increase in their workforce; and
- One third of respondents from the south of Tasmania expect workforce numbers to remain around the same.

Table 21: Expected workforce growth by region

	They will increase	They will stay at around the same level	They will decrease	No response
North	82%	18%	0%	0%
North-west	25%	50%	0%	25%
South	46%	33%	5%	15%

There are some differences in expected workforce growth, when analysed by fruit type, as shown in Table 22:

- The berry workforce is expected to increase;
- Equal numbers of respondents expect their pome fruit workforce to either increase or stay as they are;
- The cherry workforce is likely to either stay at around the same level or increase; and
- The summer stone fruit workforce is expected to remain at around the same level.



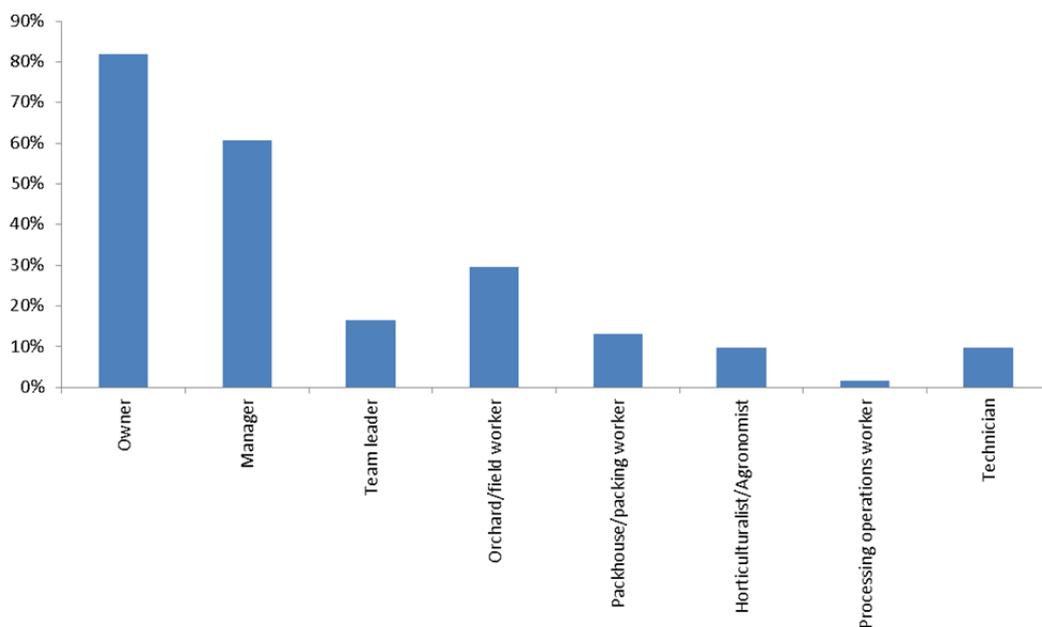
Table 22: Expected workforce growth by fruit type

	They will increase	They will stay at around the same level	They will decrease	No response
Berries	59%	29%	0%	12%
Pome fruit (apples and pears)	42%	42%	0%	15%
Cherries	38%	44%	3%	16%
Summer stone fruit	0%	75%	0%	25%

The industry is a multi-cultural employer, with a wide representation of nationalities working in the industry – predominately as part of the seasonal workforce. Forty four respondents indicated that they employ international workers, primarily from Asia, Europe, Canada, North America and United Kingdom.

Figure 16 shows the job roles of respondents.

Figure 16: Job roles of respondents



The question of respondents' job roles revealed that respondents undertake a variety of roles, as shown in Table 23.

Further analysis reveals that owners and managers are often one and the same, and work across the majority of job roles. With the exception of six respondents, all managers were also business owners. These six managers did not have any roles other than that as manager and:

- Four of these managers worked in large business;
- One worked in a small business; and
- One worked in a medium business.



Table 23: Multiple job roles

Number of job roles	Number of respondents
8	1
7	0
6	2
5	3
4	4
3	8
2	18
1	20
Total	56

Note: Five respondents did not provide their job role

Table 24 shows the job roles of workers employed in respondent’s operations, by business size. It shows that:

- Large businesses employ a broader range of workers than do small and medium sized businesses;
- Employment of orchard/field workers does not vary greatly between businesses;
- Only large businesses employ technicians; and
- Small and medium businesses mainly employ managers, team leaders, orchard/field workers, and packhouse workers.

It is likely that as businesses expand, there will be an increase in the need for the small and medium sized businesses to have access to managers and team leaders.

Table 24: Job roles of workers employed

Values	Small	Medium	Large
Managers	20%	19%	63%
Team leaders	5%	38%	63%
Orchard/field workers	90%	95%	88%
Packhouse/packing workers	30%	48%	75%
Horticulturalists/Agronomists	15%	10%	38%
Processing operations workers	0%	5%	13%
Technicians	0%	0%	38%



Table 25 shows the licences required by respondents, according to the size of the respondent's business. It appears that large businesses are subject to a greater amount of licensing requirements than smaller businesses. Analysis of responses by regional location and fruit type do not reveal any significant variations in the licences required by respondents.

Table 25: Licences required by respondents – by business size

Values	Small	Medium	Large
First aid certificate	55%	43%	75%
Chemical certification	60%	86%	75%
Forklift licence	50%	71%	75%
Chainsaw licence	30%	48%	38%
Safe Food Handling permit	15%	43%	50%
Agricultural Spraying permit	20%	19%	50%
Crop Protection permit	20%	14%	38%
Liquid Trade Waste Consent	0%	0%	100%
Firearms licence	40%	48%	25%
Occupational Health and Safety/Workplace Health and Safety Certification	30%	38%	63%

4.3 Round tables and further consultations

A number of operators indicated that the increasing corporatisation of the fruit industry is likely to have a significant impact on the industry's demand for skills. Whilst it is not expected that the broad skills profile of the industry will change in terms of the types of job roles that exist, what is expected to change is the demand for different types of job roles, with an expectation that there will be an increase in the demand for skilled managers and team leaders. This supports the finding of the survey, which showed that large operations had a significantly higher proportion of these job roles than medium or small operations.

Operators confirmed the importance of international backpackers to fill seasonal positions. International workers are viewed as an asset by the industry, demonstrating strong work ethic, flexibility and being well networked with other backpackers should additional staff be required at short notice. Round table participants noted that the administrative and reporting requirements that businesses need to meet in relation to the employment of backpackers on visas can be confusing and cumbersome. None of the operators consulted provided any comment on language barriers.



5 Skills and skills development in the fruit industry

Key insights

- Skill development is critical to the future success of the industry as it can drive productivity and quality improvements and meet a rapidly growing export market. In particular, there is a need for upskilling in new practice and new knowledge being driven by technological change, changing market conditions and changing production conditions.
 - Accordingly, there are roles to play for training providers, industry operators, peak industry bodies and government to allow the sector to meet the skill challenges necessary to ensure it is well equipped for the competitive environment into the future.
 - This includes ensuring that there are appropriate links between research findings, innovative practices and technologies and VET skill development pathways.
- Industry operators consider that they have a solid stock of skills, with in excess of 80 per cent of operators rating their skills as adequate or very good across a range of different skill areas.
 - Some caution needs to be applied in relation to this insight, as there are some views that self-assessment can tend to over-rate skill levels.
 - This can also be contrasted against the literature which suggested that a key skill driver for the broader agriculture sector is the need to develop business management, leadership and entrepreneurial capabilities.
- The vocational education sector has a significant role to play in addressing industry skill needs as it provides the certificate level qualifications that are most typically held by industry operators.
 - This is in line with relevant industry literature that indicates that paraprofessional/ technician job roles in the broader agricultural sector are trained through the VET sector.
- While not raised in the industry survey or the roundtable and other consultations, the literature indicates that there is a lack of recognition and response by the VET sector to an increasing demand from industry for skill sets rather than full qualifications.
- There is limited use of the VET and tertiary education sectors by the industry:
 - It appears that specific industry related training has not historically been a high priority for the fruit industry, as 75 per cent of respondents do not have specialist industry related qualifications. Despite this, the VET sector provides the certificate level qualifications that are most typically held by industry operators; and
 - There appears to be limited involvement in the delivery of specific training related to production horticulture by RTOs in Tasmania.
- The literature suggests that the ability of the VET sector to service the needs of the industry is impinged by a range of challenges that can limit the capacity of the VET sector to service the industry's needs.
- The bulk of current industry training appears to be provided by employers with only some 7 per cent of respondent's training expenditure being used to purchase training from external



providers:

- This training effort involves informal (rather than formal, nationally recognized) training;
 - The survey indicated that, on average:
 - ◆ Fruit industry operations spend around three per cent of their total expenditure on training; and
 - ◆ 24 per cent of the training expenditure of fruit operators was spent on their permanent workforce.
 - As the fruit industry expands and becomes more corporatised, there is likely to be a need for more use of external providers and formal, nationally recognised training (both at a VET and tertiary level).
 - Access to training is not considered a problem by industry, with 90 per cent of respondents reporting they had no problems accessing the training they required, with some exceptions:
 - However, a significant proportion of operators (35 per cent) had not tried to access external training recently.
 - Industry operators indicated that there are established structures of career pathways within the industry. However, these pathways are not actively promoted and the access points to those pathways are not clear:
 - This is indicated by the wide variety of fields of study undertaken and specialist qualifications held by respondents; and
 - A number of operators were critical of the lack of formal skill based pathways in production horticulture.
- The literature suggests that this is a common barrier to skill and workforce development across the agricultural sector.
- There is evidence that larger operations are embracing a training culture, but that the training culture of medium to small operations is less developed.
 - There is a contrast between the approaches to training by larger operators compared to small to medium operators, with larger operators seen to be more likely to use externally facilitated and nationally recognised training.

Implications for Workforce Planning

- There is a need to investigate how to improve the links between industry skills demand and supply through the use of formal skill based pathways (for example, in production horticulture).
- Industry workforce planning strategies need to recognise that informal methods of knowledge transfer are an important and preferred mode of learning for many in the fruit industry.
- There is a need to consider how to strengthen the transfer to VET sector skill development pathways of research findings, innovative practices and technologies that stem from higher education research and development.
- Given the relatively low use of the VET system by the industry, there is a need to consider developing strategies to:
 - Identify and address barriers that limit the capacity of the VET sector to service the industry's needs;
 - Improve the support that the VET training system can provide to the industry, particularly



through identifying ways to support the knowledge transfer from industry (e.g. horticulture specific knowledge) to RTOs in the VET sector;

- Inform industry operators of the training opportunities available to them, and the benefits these opportunities can provide to their operations; and
- Consider the extent of industry demand for skill sets and how the VET sector can service that demand.
- Consideration should be given to clearly identifying and formalising industry career pathways and investigating how they can be supported by skills based training:
 - Promotion of career pathways would need to provide for both vertical 'school/university to work' pathways and horizontal 'other industries to fruit industry' pathways.
- The industry could benefit from investigating how to improve the training culture across small to medium sized operations.

5.1 ABS data

Table 26 shows the highest level of schooling completed by the fruit industry workforce. It shows that completion of years 10 and 12 are the most common levels of schooling completed. The apple and pear growing sector has a slightly higher proportion of its workforce who left schooling at year 10, and the stone fruit growing sector has slightly more of its workforce having completed year 12 than the other sectors.

Table 26: Fruit Industry Workforce – Highest level of schooling completed

	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing
Year 8 or below	0%	3%	0%
Year 9 or equivalent	11%	8%	8%
Year 10 or equivalent	42%	49%	42%
Year 11 or equivalent	12%	9%	8%
Year 12 or equivalent	35%	27%	39%
Not applicable	0%	4%	4%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 27 shows the field of study of education undertaken by the fruit industry workforce. As would be expected, the area most frequently studied is agriculture, environment and related studies. Management and commerce, and engineering and related technologies are also areas that feature.

Table 27: Fruit Industry Workforce – Field of study of education undertaken

	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing	Total
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	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing	Total
Agriculture, Environmental and Related Studies	13%	9%	22%	12%
Architecture and Building	3%	2%	0%	2%
Creative Arts	0%	0%	4%	1%
Education	3%	2%	0%	2%
Engineering and Related Technologies	6%	8%	8%	7%
Field of study inadequately described	4%	0%	0%	1%
Field of study not stated	0%	4%	9%	4%
Food, Hospitality and Personal Services	0%	1%	5%	2%
Health	3%	2%	0%	2%
Information Technology	0%	2%	0%	1%
Management and Commerce	13%	6%	9%	8%
Natural and Physical Sciences	0%	0%	6%	1%
Society and Culture	4%	3%	0%	3%
Not applicable	53%	60%	38%	54%

Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

Table 28 shows the highest level of qualification completed by the fruit industry workforce. It shows that:

- Certificate level qualifications are those most typically held; and
- With the exception of stone fruit growing, over half of respondents indicated that the highest level of qualification completion is 'not applicable'.

Table 28: Fruit Industry Workforce – Highest level of qualification completed

	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing	Total
Certificate Level	17%	20%	35%	22%
Advanced Diploma and Diploma Level	7%	6%	9%	7%
Bachelor Degree Level	15%	6%	10%	9%
Graduate Diploma and Graduate Certificate Level	0%	2%	0%	1%

	Berry Fruit Growing	Apple and Pear Growing	Stone Fruit Growing	Total
Postgraduate Degree Level	3%	2%	5%	3%
Level of education inadequately described	3%	0%	0%	1%
Level of education not stated	3%	6%	4%	5%
Not applicable	53%	60%	37%	54%

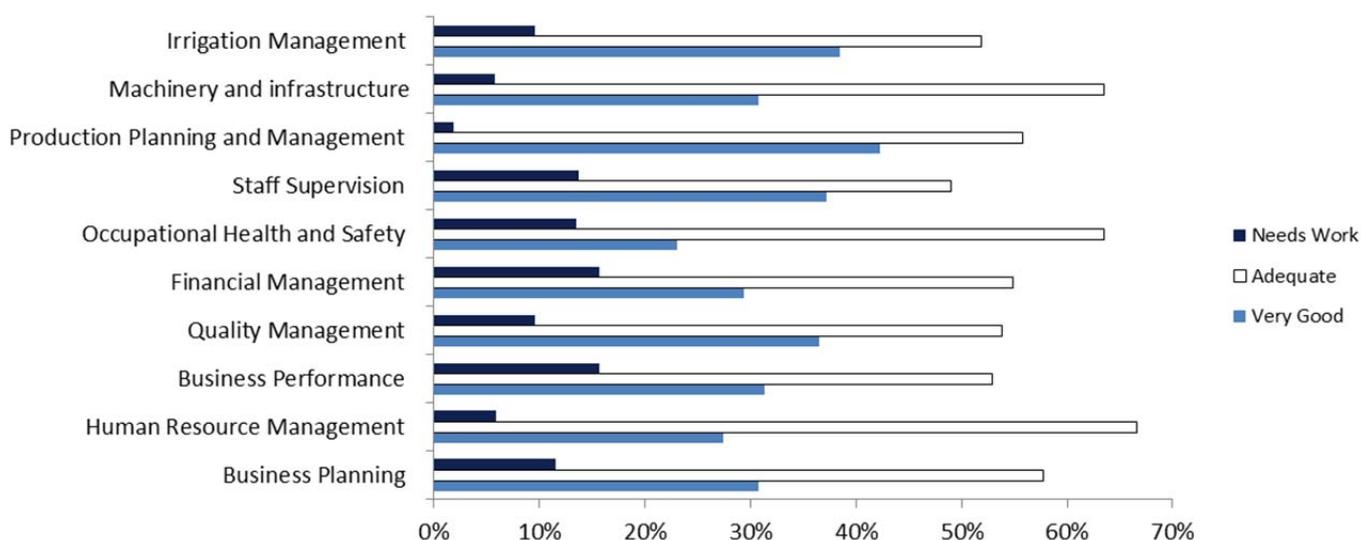
Source: Australian Bureau of Statistics, 2011 Census of Population and Housing

5.2 Survey data

When asked to rate their skills on a scale from very good to 'needs work', respondents tended towards holding very good or adequate skills in most areas, as illustrated in Figure 17. It is unlikely on the face of it therefore that the industry's expansion plans are going to be hampered by a lack of skills. However, the majority of respondents indicated a response of 'adequate', which suggests that there is room for improvement. There are, however, various views on the reliability of self-assessment. Some suggest that people assessing their own skills tend to rate their skills lower than when others assess their skills²¹, which would suggest that the assessments in Figure 17 reflect lower skill levels than are actually the case. Other views suggest that caution needs to be taken when commenting on self-assessment of skills due to a tendency to over-rate skill levels.

Analysis of the ratings between responses by region, business size and fruit type revealed no major differences.

Figure 17: Rating of skills



²¹ Njora, Hungi, Darmawan, Gusti Ngurah; Keeves, John P., Examining the Validity of Different Assessment Modes in Measuring Competence in Performing Human Services. *International Education Journal*, v5 n2, p154-175 2004.

Respondents were asked to provide information in relation to what proportion of their expenditure is spent on training, how much of this is spent on purchasing training from external providers and how much is spent on the permanent workforce. The responses indicated that:

- On average, three per cent of expenditure is spent on training;
- On average, seven per cent of respondent's training expenditure was used to purchase training from external providers; and
- On average, 24 per cent of respondent's training expenditure was spent on their permanent workforce.

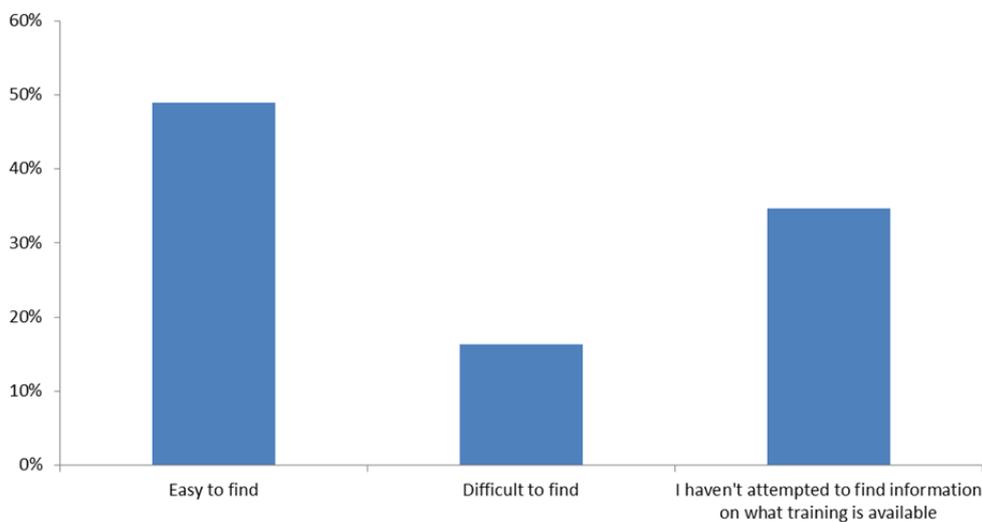
When asked if there was any training required by respondent businesses but that they were unable to obtain, 90 per cent said no, and 10 per cent indicated that there were some areas where they could not obtain training. The following further responses were received:

- Tunnel maintenance and building;
- Fork lift licences;
- Chemical Certificate; and
- Management development courses. "TAFE could not get act together. We now fly all staff to Victoria and it is cheaper. How can that be?"

Figure 18 shows responses to the question about whether information on training is easy or difficult to find. It shows that 49 per cent of respondents to this question easily find training, and 35 per cent have not sought information on training. Sixteen per cent have had difficulties finding training information.

Further analysis of the data regarding finding information on training reveals that of the 32 respondents who had sought such information, 24 (75 per cent) found it easy and eight (25 per cent) found it difficult to find training information.

Figure 18: Ease of finding information about available training



Educational attainment

Respondents were asked if they held any specialist qualifications for their work in the fruit industry. Fifteen responses were received for this question indicating specialist qualifications held, and are shown in Table 29. Responses reveal a variety of qualifications held, from industry specific certification to vocational education and training qualifications to university degrees.

Specific industry related qualifications are only held by around 25 per cent of respondents. This could be due to a variety of factors, including difficulties finding relevant training, a low value

placed on training, or the preference of industry based training that does not result in a qualification.

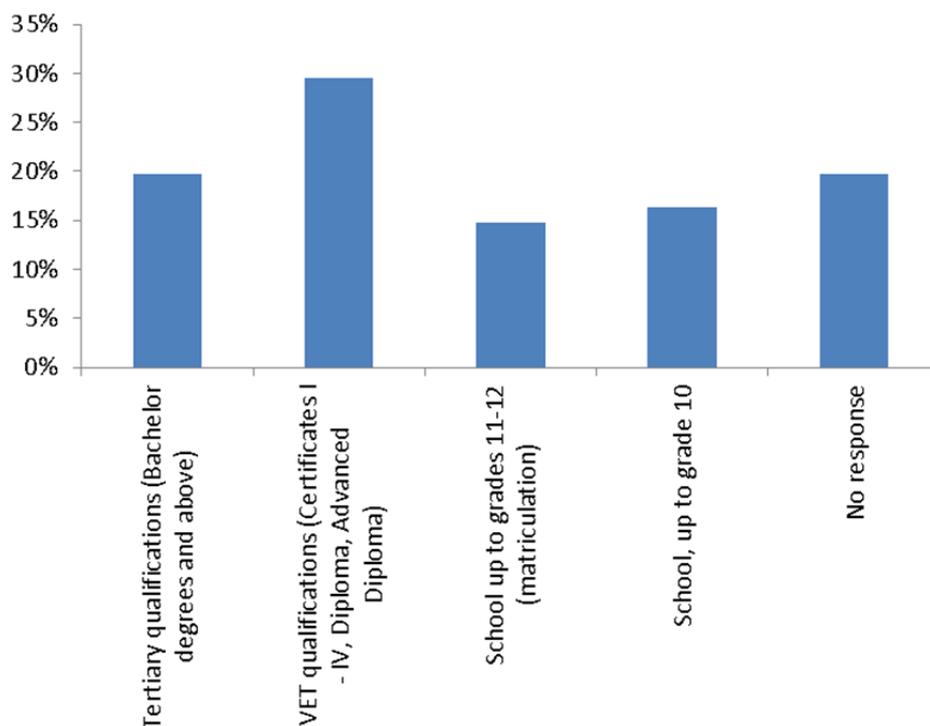
Table 29: Specialist qualifications held

Specialist qualifications held by respondents
Trade Certificate in Horticulture
Trade Certificate in Agriculture/ Fruit growing
Advanced Diploma
First aid, Firearms
Diploma of Applied Science (Agriculture)
Commercial Cookery certificate, Train the Trainer, Certificate III in Horticulture
Chemical certification, Freshcare certificate
Chemical application certification
Chemcert, Freshcare, Woolworths QA
Certificate of Agriculture Farm Management
BSc Plant science
BSc Life Sciences
Associate Diploma Ag Business Management
Agricultural Science degree
Advanced Diploma of Agriculture

Respondents were asked what level of qualifications they hold more generally, as shown in Figure 19. It shows that VET qualifications are held by 30 per cent of respondents, and 20 per cent hold tertiary qualifications. This trend supports the ABS census figures, where VET qualifications are more typically held than tertiary qualifications. However, our sample is more highly qualified than the ABS census figures (2011) suggested.



Figure 19: Level of qualifications held



5.3 Round tables and further consultations

A number of operators indicated that career pathways exist within the industry. For example, whilst not the most common pathway, operators confirmed that pickers do sometimes move up through the ranks to management. A number of operators commented that several of their current 'best people' had done exactly this.

A number of operators were critical of the lack of availability of formal skill based pathways in production horticulture. Some also perceived a lack of specialist horticultural knowledge within TasTAFE, which indicates an issue with the capability of the VET system to adequately serve the industry's needs. Desktop research indicates that there are only two registered training organisations that are registered to deliver production horticulture qualifications in Tasmania: TasTAFE and Lilydale District High School.²²

Acquiring skills was not seen as an issue for any growers consulted during the roundtables. Most noted that they referred to the internet for reference and that at manager level learnt much from study tours and travel. Several operators commented that mentoring was an important mechanism for transferring knowledge and skills to staff, particularly those who were pursuing a vertical career pathway (i.e. coming up through the business).

Operators in the North-West commented that there was a lack of knowledge at the schools level about industry career pathways.

Several operators indicated that the availability of science based knowledge relevant to the industry was critical to future industry growth and productivity. This draws attention to the need to ensure training pathways in the industry incorporate access to such science based knowledge. In this respect, one operator pointed out that Fruit Growers Tasmania had previously arranged for the Tasmanian Institute of Agriculture to provide a plant physiology unit as part of professional

²² <http://www.myskills.gov.au/Courses/Search?keywords=horticulture&locationId=15657&distance=25>

development for growers. In this vein, a number of operators indicated that there is a need to ensure the industry has ready access to new technology and innovation that stems from higher education research and development. In the North-West roundtable participants expressed interest in forming closer linkages with the University and its research initiatives.

There was a general appreciation of the link between training and industry productivity. Some operators indicated that the industry needed to develop a better training culture – with the current approach to training hindered by operator fears that they could not adequately capture investments in training. Specifically, there was a belief that operators, particularly small to medium sized operators, have not historically invested in training as they thought that staff would demand higher wages and potentially leave to higher paying jobs. This can be contrasted against the emerging view from the roundtables and individual interviews that larger corporate style operations took a longer term view and had a greater commitment to training (particularly externally provided and nationally recognised training), matched by budgetary commitment. Some operators observed that these larger operations could afford to do this as they could offer complete career paths within their organisations, something that was sometimes beyond the reach of small to medium sized operators.



6 Workforce attraction and retention

Key insights

- There were some differences between the methods used for recruiting seasonal and permanent staff:
 - There is greater use of social media and labour hire/recruitment companies for recruitment of seasonal staff in the berry and summer stone fruit sectors; and
 - The larger the operation, the more diverse the methods of recruiting that are used.
- The industry finds it difficult to recruit skilled and experienced managers, team leaders, processing operations workers and technicians.
- In contrast, attracting skilled orchard/field workers and packhouse/packing workers (e.g. mainly seasonal staff) is not seen as an issue:
 - The challenge with seasonal staff is managing the volume of applications received, with operators generally reporting that enquiries exceeded jobs available; and
 - The seasonal workforce has a significant international component, as difficulties have been experienced with sourcing reliable local labour for seasonal job roles.
- Worker retention is only an issue for particular job roles and business sizes:
 - Larger operations find it particularly difficult to retain packing staff.
 - Almost a third of medium sized businesses can have problems retaining managers and team leaders. In contrast, a majority of all sizes of operations find the retention of orchard/ field workers generally easy. Nevertheless, over a third of large operations reported that it was difficult to retain these workers.
- The key challenges in retaining workers reported by fruit industry operators are the seasonal nature of the work and salaries and wages.
- There is concern amongst industry operators that there is a need to improve the image of the industry as an attractive place to work, with this image problem adversely impacting on the ability of the industry to attract new workers and retain existing ones.
 - This concern is consistent with the literature, which indicates that it is a commonly held concern across agricultural industries.

Implications for Workforce Planning

- Strategies to improve recruitment and retention practices will be required as skills demand grows within the industry.
 - In particular, strategies to improve the retention of skilled workers are likely to become a cost effective way of maintaining the stock of skills in the industry (compared to training workers).
- To improve industry recruitment there is a need to identify initiatives that could improve the perception of the industry to one that provides good well remunerated careers with clear pathways.



- This should be accompanied by identifying worker recruitment and retention practices that provide operators with more confidence that they can capture the benefits of their investment in training.

6.1 ABS data

The ABS Census of Population and Housing does not collect data in relation to workforce attraction and retention.

6.2 Survey data

When asked what methods respondents use to recruit staff, there were some differences between their methods of recruiting seasonal as opposed to other staff. Figure 20 shows that around 76 per cent of respondents use locals and word of mouth as the primary means for recruiting seasonal staff and slightly less use locals and word of mouth for recruiting other staff. Social media is the next preferred option for recruiting seasonal stuff, but not other staff, and 36 per cent of respondents recruit through direct advertising for both seasonal and other staff.

Figure 20: Recruitment methods use for recruiting seasonal and other staff



Tables 30 to 35 show the methods respondents use to recruit seasonal and other staff. They indicate that locals/word of mouth, social media, direct advertising and family and friends are the most typically used methods to recruit staff.

Table 30: Methods used to recruit seasonal staff – by region

Recruitment Method/s	North	North-west	South
Locals/Word of Mouth	73%	50%	56%

Recruitment Method/s	North	North-west	South
Social Media	55%	38%	23%
Direct Advertisement	36%	25%	26%
Labour Hire	27%	25%	8%
Family and Friends	18%	13%	23%
Recruitment Companies	9%	13%	5%

Table 31: Methods used to recruit seasonal staff – by business size

Recruitment Method/s	Small	Medium	Large
Locals/Word of Mouth	55%	71%	88%
Social Media	45%	24%	50%
Direct Advertisement	40%	14%	38%
Family and Friends	30%	10%	50%
Labour Hire	15%	5%	50%
Recruitment Companies	5%	0%	38%

Table 32: Methods used to recruit seasonal staff – by fruit type

Recruitment Method/s	Berries	Pome fruit	Cherries	Summer stone fruit
Locals/Word of Mouth	65%	62%	47%	25%
Social Media	53%	35%	22%	50%
Direct Advertisement	35%	27%	19%	25%
Family and Friends	35%	12%	19%	25%
Labour Hire	29%	8%	9%	25%
Recruitment Companies	18%	0%	3%	0%

Table 33: Methods used to recruit staff other than seasonal staff – by region

Recruitment Method/s - other staff	North	North-west	South
Locals/Word of Mouth	55%	50%	56%
Social Media	36%	13%	8%



Recruitment Method/s - other staff	North	North-west	South
Family and Friends	27%	0%	15%
Labour Hire	18%	0%	10%
Direct Advertisement	18%	25%	31%
Recruitment Companies	9%	0%	8%

Table 34: Methods used to recruit staff other than seasonal staff – by business size

Values	Small	Medium	Large
Locals / word of mouth	50%	67%	75%
Direct advertisement	25%	19%	50%
Family and friends	25%	14%	13%
Social media	20%	10%	25%
Labour hire firms	10%	0%	38%
Recruitment companies	5%	0%	25%

Table 35: Methods used to recruit staff other than seasonal staff – by fruit type

Recruitment Method/s - other staff	Berries	Pome fruit (apples and pears)	Cherries	Summer stone fruit
Locals/Word of Mouth	41%	62%	50%	25%
Direct Advertisement	35%	31%	19%	25%
Family and Friends	29%	8%	13%	0%
Labour Hire	24%	8%	6%	25%
Social Media	24%	15%	16%	50%
Recruitment Companies	18%	4%	0%	0%

Figures 21 and 22 present responses to the question of whether it is easy or difficult to recruit adequately skilled and adequately experienced staff, respectively. Responses indicated that there are difficulties in recruiting adequately skills and/or experienced staff for the roles of managers and team leaders. This is supported by comments made by operators in subsequent consultations, for example:

- “In our orchard operations we find it very difficult to attract suitably skilled and motivated people at the supervisor level.”



- “The berry industry in Tasmania has been growing rather rapidly in the past 2-3 years. The availability of skilled managers with experience in both harvest management as well as tunnel maintenance are challenges for our business.”

Figure 21: Ease of recruiting adequately skilled staff

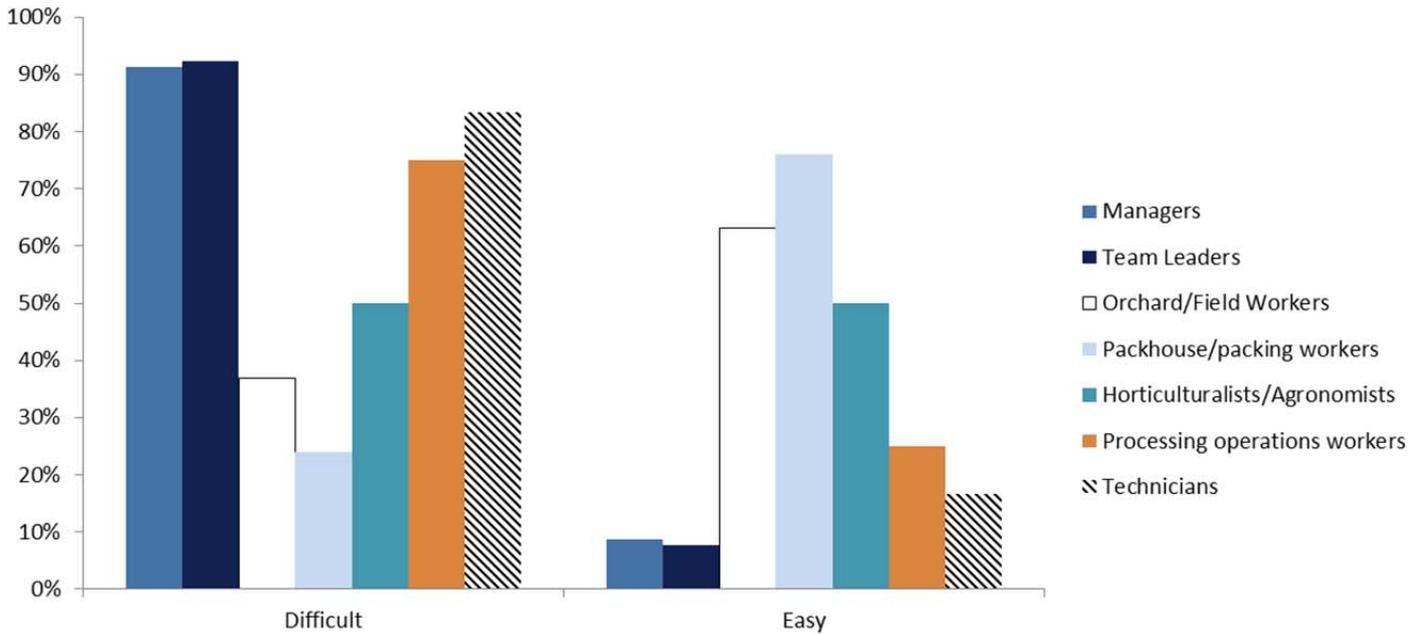


Figure 22: Ease of recruiting adequately experienced staff

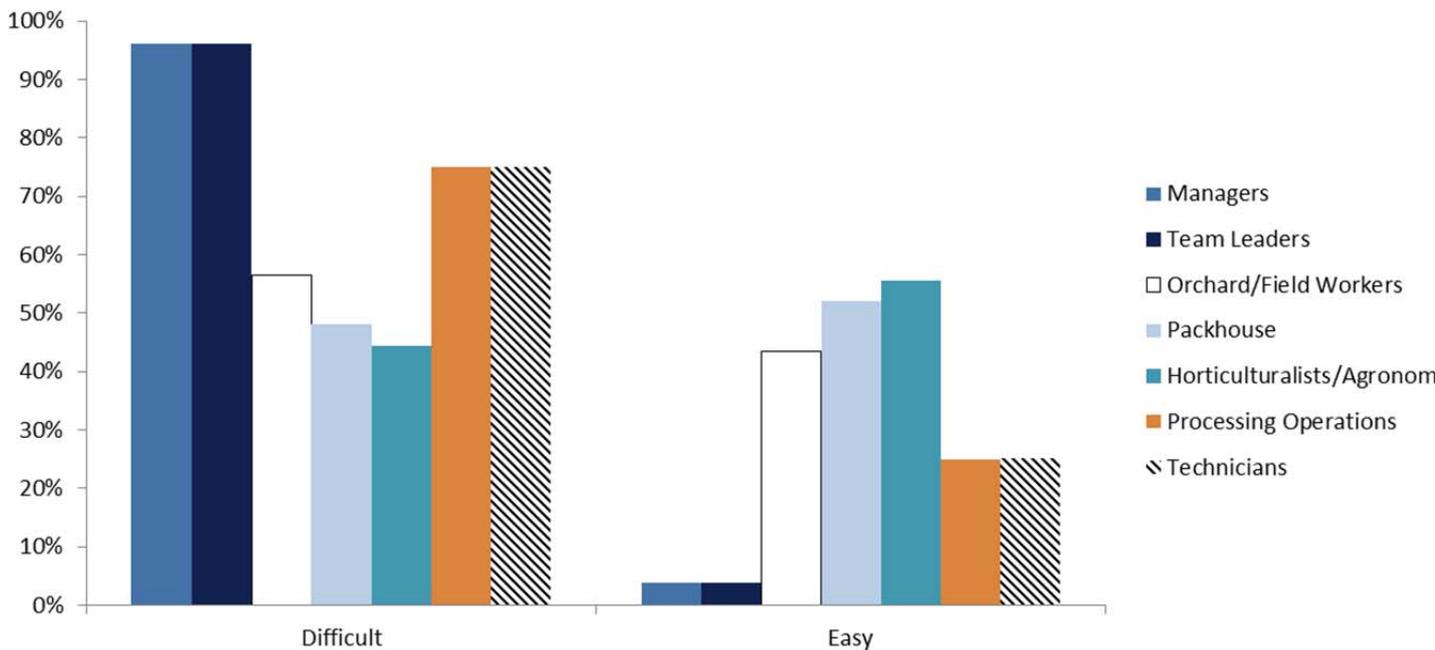


Table 36 summarises responses to the question of whether it is easy or difficult to retain staff, according to job role, and by size of business. It shows that:

- Orchard/ field workers and packhouse/ packing workers are relatively easy to retain (however, larger businesses find it more difficult than others to retain packhouse/ packing workers);
- Team leaders and managers are difficult to retain, particularly for medium sized businesses;



- Retaining managers and team leaders in small businesses is not an issue, with around 50 per cent of respondents responding 'not applicable to this question.'

Table 36: Ease of retaining staff – size of business

	Managers	Team leaders	Orchard/field workers	Packhouse/packing workers	Horticulturalists/Agronomists	Processing operations workers	Technicians
Difficult (Large)	13%	13%	38%	50%	13%	0%	13%
Difficult (Medium)	29%	33%	24%	19%	5%	5%	10%
Difficult (Small)	5%	5%	20%	15%	5%	5%	5%
Easy (Large)	50%	63%	50%	25%	25%	13%	13%
Easy (Medium)	19%	5%	52%	24%	10%	5%	0%
Easy (Small)	20%	15%	50%	25%	25%	5%	0%
Not Applicable (Large)	25%	13%	0%	0%	25%	25%	25%
Not Applicable (Medium)	29%	38%	14%	33%	52%	57%	57%
Not Applicable (Small)	50%	55%	20%	30%	40%	50%	55%

6.3 Round tables and further consultations

Attracting seasonal staff was not seen as presenting any particular difficulty to operators, although managing the volume of applicants and sifting through applications to find suitable staff was seen as a challenge.

The international and itinerant nature of the seasonal workforce was noted, as was the difficulties with sourcing reliable local labour for seasonal job roles.

- One operator commented that “Backpackers are very important and will remain so – fit, keen, educated – there is really no shortage of pickers that I am aware of.”
- Another observed that “Unfortunately we have had a number of attempts to employ local workers; however they come to the farm and state that they will return the following day, only to have them not show up at all. Backpackers looking for second year visa is the only way that this particular farm would be able to survive!”

Attracting permanent staff, particularly senior staff was considered more difficult, often requiring extensive advertising to find the right candidate. Larger operations expressed less difficulty being able to use their position in the industry to attract career professionals and become a business for which people want to work.

A number of operators indicated that there is a need to improve the perception of the industry to one that provides good well remunerated careers with clear pathways. Issues in this area are illustrated by:

- The difficulties experienced by Fruit Growers Tasmania in attracting applicants for an Honours scholarship in Agricultural Science. For the past two years there have been no applicants for this scholarship.
- The reported declining numbers of students studying agricultural science at the University of Tasmania. It is noted that studying agricultural science at the University of Tasmania is only available through the Hobart campus.
- The low numbers of students doing production horticulture certificates through TasTAFE.

One operator observed this perception issue applied to the agriculture industry generally – commenting that “Agriculture is not seen as a serious option at school or tertiary level anymore due to urbanisation and a disconnect with food and fibre”.

A better perceived industry would attract better career seeking applicants with the required skills. This would aid recruitment and productivity. In turn, it could be expected to encourage further investment in employees, effectively supporting a strengthening of the industry’s training culture.

In addition, whilst not a strong emerging theme, several operators implied that there is a need to identify worker recruitment and retention practices that provide operators with more confidence that they can capture the benefits of their investment in training. Such practices are also likely to improve the industry’s approach to training and its training culture.



Attachment A - Methodology

The project involved collecting data on the fruit industry, its workforce and its skills needs from a number of primary sources:

- Australian Bureau of Statistics publications;
- An online industry survey; and
- A series of regional roundtable discussions (supplemented by a small number of individual interviews).

Pre-consultation activities

The following activities were undertaken prior to the development of surveys and organisation of roundtable meetings:

- Attendance at the FGT Conference in May;
- A specific email address for the project was established, tasfruit@stening.com.au, for interested industry members to express interest in completing the survey, This email address was provided to participants at the FGT Conference;
- Meetings with Reference Group members to discuss issues related to the survey and roundtable design and to clarify and finalise the scope of the survey and roundtables.

Survey

With assistance from the Reference Group for the project, the Fruit Skills Needs Analysis survey was designed, piloted, amended and published online for completion.

FGT and DEDTA (Department of State Growth) distributed email invitations to a total of 166 industry members inviting participation in the survey and explaining details on the project.

Stening & Associates distributed an email invitation to the one industry member who contacted us via the tasfruit@stening.com.au email address.

The survey was made 'live' on 27th June 2014, and will be closed on Friday 18th July 2014.

Roundtables and further consultations

Three regional roundtables were held in early August:

- 5 August – Grove Research Station, Grove.
- 7 August – TFGA Board Room, Launceston
- 8 August – Turner's Beach Berry Farm, Turner's Beach (14 km from Devonport).

The roundtables were held at breakfast time, and were of approximately two hours in duration.

Further consultations were held with some key industry stakeholders who were unable to attend a roundtable.

The detailed data requirements and collection methods, agreed with the Reference Group, are outlined below:

Data Group	Data Requirements	Method
About the business		
	Type of sector	Survey



Data Group	Data Requirements	Method
	Scope of operation (grower, picker, processing, packing, support service etc.)	
	Location/Region	Survey
	Size of workforce By broad job role	Survey
	Production - Current: Farm: by fruit variety – volume/hectares/ Other: turnover – 2013/14 financial year	Survey
	Production intentions – Future (over next 5 years): Expand, sell, remain unchanged	Survey
	Barriers to expansion/ Key issues and challenges	Roundtables
About the workforce		
	Current job role	Survey
	Time in industry	Survey
	Type of employment (Full time, Part Time, Casual, Seasonal)	Survey Census
	Education level	Survey Census
	Specialist qualifications held	Survey Census
	Gender	Survey Census
	Age	Survey Census
	Ethnicity	Survey Census
	Non English Speaking Background	Survey Census
Skills and skill development		
	Adequacy of current skills of workforce By broad job role	Survey

Data Group	Data Requirements	Method
	Adequacy of current skills of employer	Survey
	Skills gaps - between current workforce and future needs By broad job role	Roundtables
	Preferred method of training delivery for the business For employers For employees	Survey
	Current training investment By broad job role	Survey Roundtable
	Knowledge of training opportunities Employers Employees	Survey
	Capability of the training and higher education system to meet skill needs and barriers	Survey Roundtables
	Essential skills including licences required at entry and other levels for the TFI	Survey Desktop research
Workforce attraction and retention		
	Future hiring intentions By broad job role	Survey
	Labour source – local advertisement, labour hire firm, word-of mouth etc. Permanent/part time Casual/seasonal	Survey
	Degree of difficulty experienced in hiring employees By broad job role	Survey Roundtables
	Adequacy of current communications used to find work/source workers including use of social media Employees Employers	Survey Roundtables
	Barriers for finding employment Employees	Survey Roundtables



Attachment B - Consultation

Name	Company
Peter Morrison	Agronomist
Andrew Hall	Agronomist
Carly Franks	Beacon Foundation
Cameron Wilkins	Costas
Glenda Diggerman	Costas
Howard Nichol	DPIPWE
Marie Harvey	Glenburn
Howard Hansen	Hansens Orchards
Kim Slater	Links employment
Suzy Chugg	Links employment
Lucy Gregg	Reid Fruits
Sam Riggall	Somercotes
Dustin Samavour	Somercotes
Michelle Distill	Spreyton Orchards
Grant Langworthy	Spreyton Orchards
Mick Dudgeon	Stonecrest Cherries
Mel King	TFGA
Bradley Ashlin	TopQual Calthorpe
Linda Groombridge	Trial Bay Orchards
Craig Morris	Turners Beach Berry Farm
Penny Measham	University of Tasmania
Dugald Close	University of Tasmania

