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Skills Gaps in Agriculture and Skills of Culturally and Linguistically Diverse People

Final Report

Agriculture Victoria

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Executive Summary

The agriculture sector in Victoria is facing challenges in attracting and retaining skilled staff. In line with the Department of Jobs, Precincts and Region's Smarter, Safer Farms program action area *Skills for empowered and innovative decision making*, Agriculture Victoria commissioned this project – Skills Gaps in agriculture and skills of Culturally and Linguistically Diverse (CaLD) Australians. It builds on the research conducted in *Identifying opportunities and challenges for Culturally and Linguistically Diverse (CaLD) communities to address workforce gaps in Victoria's agriculture sector*, conducted by RMCG with Agriculture Victoria in 2020.

This project explores the skills of Australians (including permanent residents and those on visas) from CaLD backgrounds, compares it with the skills gaps that dairy and horticulture industries are experiencing and provides recommendations required to reach both the industry's potential and that of the employees from CaLD backgrounds. With the cultural diversity of Victoria continuing to increase¹, the ageing demographics of mainstream Australian farmers² and the declining interest of younger mainstream Australians in agriculture as a career³, this project is timely in its exploration of skills that people from CaLD backgrounds can offer to dairy and horticulture that are well beyond what is required for entry level labour jobs. People from CaLD backgrounds with such skills can help to ensure these , industries adapt and thrive into the future.

This report includes a desktop review and results of engagement conducted with industry peak bodies, education providers, organisations that work with CaLD communities, farm businesses and individual employees from CaLD backgrounds. This culminated in an action plan for the dairy industry to lead with the support from those involved in the working groups established as part of this project. A summary of the elements of the action plan can be seen in the Table below.

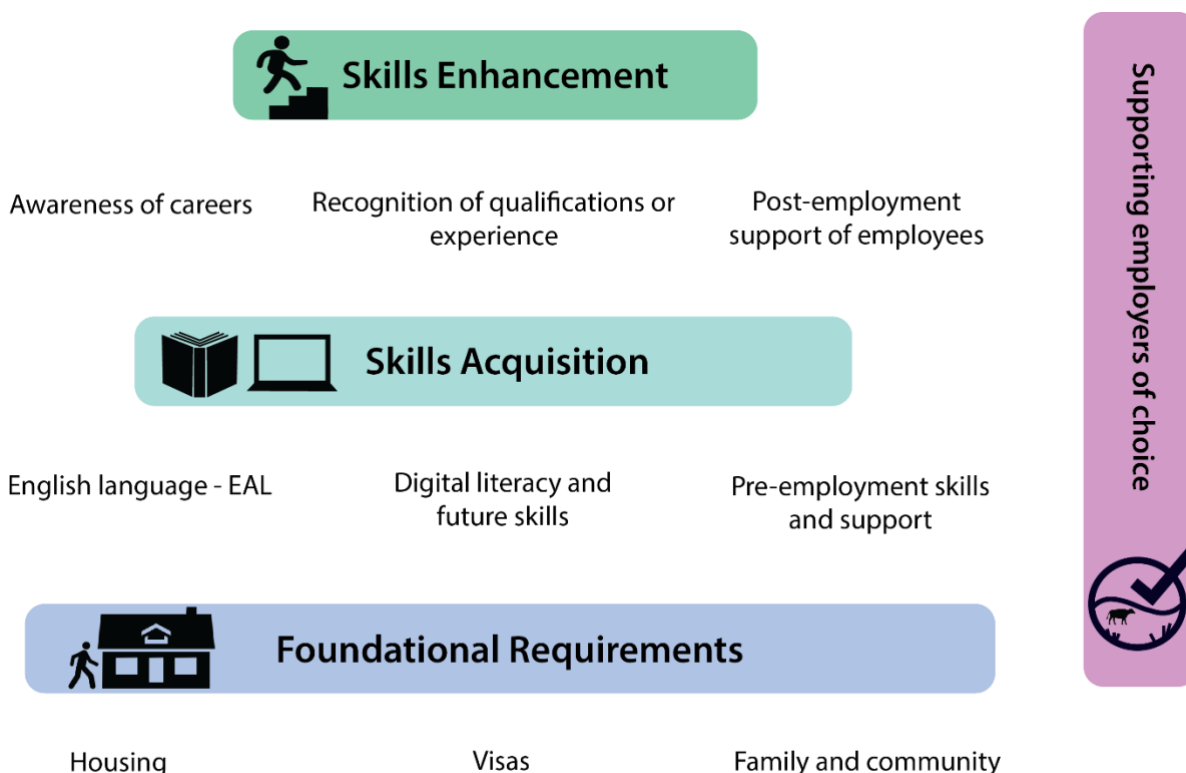


Figure 1: Approach to Skills Acquisition and Enhancement for Employees from CaLD backgrounds

¹ <https://www.abs.gov.au/statistics/people/people-and-communities/snapshot-australia/latest-release#culturally-and-linguistically-diverse-communities>

² <https://www.abs.gov.au/statistics/industry/agriculture/agricultural-commodities-australia/2018-19>

³ <https://www.agriculture.gov.au/sites/default/files/documents/national-agricultural-workforce-strategy.pdf>

There are several reasons that we can identify, based on our experience in developing this and the previous 2020 report, as to why information and research on the opportunity to encourage more CaLD community members into agriculture is scarce. For example, relationships and trust are important for everyone, but even more so for people with English as an alternative language and working in regional areas where support networks and career information are not as readily available as in city locations. This makes reaching out to individual CaLD community members to talk about their experience and the potential mechanisms for support difficult to achieve, requiring patience and persistence.

Working with Agriculture Victoria, the working group members from industry, CaLD support organisations and individual farmers, we found individuals with long term commitment to dairy farming and a “passion for farming”. We also found farmers who are going well out of their way to provide support for those individuals and are, in turn, reaping the benefits of retaining skilled committed employees. The efforts that these employees from CaLD backgrounds have gone to in order to stay and work in Australia (i.e. endless applications for visas, educational courses, returning to countries of origin, coming via other countries and much more) show sheer determination, resilience, creativity and persistence – many of the desirable *Skills of the Future* noted by McKinsey⁴. Likewise, the efforts of the employers of these individuals have gone to, in support of their CaLD employees (i.e. sourcing housing, assisting with applications for visas, educational forms, essays for education, social connections and much more) are true examples of what industry should aspire to and support in terms of ‘employers of choice’.

The examples of employees and employers in this report provide case studies of what is possible and together with the action plan, highlight the support mechanisms required for such examples to become the sustainable norm for the agriculture sector going forward.

⁴ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work>

ACKNOWLEDGEMENT OF COUNTRY

We acknowledge the Traditional Owners of the various different Countries that we are working on for this project across Victoria and we recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past, present and emerging and the Elders of other Aboriginal and Torres Strait Islander communities.

Moreover, we express gratitude for the knowledge and insight that Traditional Owners and other Aboriginal and Torres Strait Islander people contribute to our shared work.

1 Introduction

1.1 PROJECT PURPOSE

The purpose of this project was to undertake a skills gap and learning needs analysis in CaLD communities to address interest in agriculture careers by such communities and fill workforce gaps in agriculture. This was delivered via several key activities, as outlined in Section 1.3, with key learnings documented in this report.

1.2 CONTEXT

Agriculture Victoria within the Department of Jobs, Precincts and Regions is delivering the Smarter, Safer Farms program to address skills gaps and safety outcomes for Victoria's agriculture sector. This initiative has two action areas, including *Farming safe and well* and *Skills for empowered and innovative decision making*. This project contributes to skill development in farm business and therefore aligns with the second action area.

Like many industries at present, attracting and retaining skilled staff is of utmost importance. Researching and exploring ways to increase the diversity of staff has been shown to improve, not only the resilience of businesses, but also their bottom line⁵. As seen in the previous research and this project, the opportunity for employing and supporting people from diverse CaLD backgrounds in agriculture is one way to meet the current skilled staff shortages in agriculture.

1.2.1 OVERVIEW OF PREVIOUS RESEARCH

The previous research project, *Identifying opportunities and challenges for Culturally and Linguistically Diverse (CaLD) communities to address workforce gaps in Victoria's agriculture sector* (2020), conducted by RMCg for Agriculture Victoria, has provided the foundation for this current project. The previous research involved:

- Exploration and mapping of where CaLD communities are co-located with agricultural industries
- Conduct of interviews with settlement support agencies, individuals from CaLD backgrounds, agricultural industry organisations and businesses and education providers
- Determination of existing workforce gaps and challenges and opportunities for potential CaLD employees.

This previous report supported Agriculture Victoria in selecting three target regions (North West, South West and Gippsland) and two sectors (dairy and horticulture) for the focus of this current project. The report also illustrated the complexities of issues raised and the need for different organisations and sectors to work together to truly gain the benefits of a diverse and productive workforce. The key issues identified were:

- The importance of settlement factors that influence CaLD communities when pursuing a career in agriculture
- Labour and skills challenges and opportunities faced by the agricultural sector
- Opportunities and challenges for employment and career development pathways for people from CaLD backgrounds.

These key issues are illustrated in the diagrams provided in the summary report of the previous research (Appendix A). The full report can be found here https://www.rmccg.com.au/case_study/opportunities-for-cald-communities-agriculture/ and will soon be available on the Agriculture Victoria website.

⁵ https://hbr.org/2016/11/why-diverse-teams-are-smarter?utm_medium=social&utm_campaign=hbr&utm_source=facebook&tpcc=orgsocial_edit&fbclid=IwAR3plsi0oMKVMhy4iHsWS2KJp4mOfyM2WskKWoyjfoTLnWfncX2iYP85dl&fs=e&s=cl

1.3 PROJECT APPROACH

An overview of the approach is provided in Figure 1-1, with further details outlined in the following sections.



Figure 1-1: Overview of project approach

1.3.1 DESKTOP REVIEW

A desktop review was completed outlining the skills gaps in agriculture, particularly for the two target sectors of dairy and horticulture and comparing these to the skills that CaLD people can potentially contribute to these industries.

Findings from the desktop review were documented in a report (see Appendix B) and provided the basis of discussion for online workshops with each of the three working groups.

1.3.2 ENGAGEMENT

Agriculture Victoria, with the assistance of RMCG established three working groups in the nominated Victorian regions with industry and business representatives from dairy and horticulture, CaLD settlement organisations and education providers representatives.

Working groups – online sessions

For each group, RMCG facilitated an online workshop session with Agriculture Victoria to explore skill gaps in the dairy/horticulture industries and potential opportunities for encouraging more people from CaLD backgrounds into agriculture. RMCG provided context from the previous research project and the desktop review (see Appendix A) and supported group discussion, using the online tool Mural to capture information and key points.

Working group participants and details of the online sessions are provided in Appendix C.

Interviews with employees of CaLD background

Through contacts provided by working group members, RMCG interviewed four individuals from CaLD backgrounds working in the dairy sector and a dairy producer who currently employs several CaLD people.

Interviews were conducted via phone, using an interview guide to prompt conversation and were approximately an hour in length. The interview guide and background of interviewees are provided in Appendix D.

1.3.3 DOCUMENT LEARNING ACTION PLANS

A framework for the Learning Action Plans (LAPs) was provided by the Agriculture Victoria project manager to document the LAPs for the four individuals interviewed. This framework was adapted considering the skills classification for dairy and horticulture as identified in the desktop review and information provided in interviews.

A LAP was documented relevant to individual's career aspirations, experience and capacity building needs.

Refer to Appendix E for Agriculture Victoria's LAP framework and the adapted LAPs for each of the CaLD employees.

1.4 PROGRAM LOGIC

A Program Logic was drafted by RMCG and provided to Agriculture Victoria to confirm scope of the project and identify outcomes being sought. This is provided in Appendix F.

2 Desktop review

Findings from the desktop review highlighted the context and changing needs of the agricultural sector and the challenges that it currently faces regarding skills and labour shortages. Specifically, the review identified skill classification, skill need and workforce planning for the dairy and horticulture sectors as significant issues. Such information was tested with the working groups in the online sessions.

While much information can be found on the barriers to participation of CaLD people in agriculture (and the workforce in general), very little online information was available regarding their potential skills and experience and the opportunity this may present. Information was mainly sourced from interviews conducted in the previous research project with CaLD support agencies and individuals, and agricultural businesses and education providers who had first-hand experience working with CaLD groups and individuals.

In summary the main barriers to participation were:

- English language
- Numeracy and literacy skills and
- Australian workplace culture and context.

The main opportunities were:

- Entrepreneurial skills
- Innovation and
- Skills specific to dairy and horticulture.

Leadership and management skills were considered both an opportunity and a barrier due to the subtle differences in the Australian setting.

The full desktop review report is provided in Appendix B.

3 Engagement

3.1 WORKING GROUP SESSIONS

3.1.1 BACKGROUND

The purpose of the working groups was to provide a network of people with an understanding of:

- Skill needs in dairy and horticulture industries
- Pathways to employment and training
- Potential CaLD employees and what their opportunities and challenges are for a career in agriculture.

Discussions during the workshop sessions confirmed the key skill needs of industry including future needs, training and capacity building available in TAFE/education sector and raised the foundational issues required to ensure a supportive culture of employment.

3.1.2 KEY THEMES FROM WORKSHOP DISCUSSIONS

Given the different organisations and sectors present in the workshops, discussions varied across groups. However, there were clear themes that came through from all workshops, including:

- The skills that people from CaLD backgrounds bring to the workforce are diverse and many and often reflect those listed in the McKinsey Future Skills report⁶
- The limitations in those skills being realised are both structural and interpersonal
- Both pre- and post-employment support services and training for CaLD employees and employers are available but require further communication and coordination to maximise efficiency and effectiveness
- ‘Learn while you earn model’ for training is preferred
- There are good examples of industry businesses who are implementing successful support services and retaining CaLD staff
- The dairy sector aspires to have employers of choice, currently provides leadership and management programs and is looking to expand projects to attract and retain CaLD employees
- There are skills shortages across all areas of horticulture and dairy sectors.

Other important themes identified in previous research but out of scope for this project, were raised by the working groups. These factors have been documented in Section 6.2.

Detailed findings and themes identified for regional working groups are described below.

⁶ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work>

3.1.3 DETAILED FINDINGS

THEMES	
Workshop 1: Gippsland agricultural skills for CaLD working group (Horticulture)	
Skills	<ul style="list-style-type: none"> People from CaLD backgrounds have a diversity of skills and aspirations, no different from other people in the community Confirmation that people from CaLD backgrounds have many of the future skills presented in McKinsey research e.g. team work, interpersonal skills, self-leadership Many people from CaLD backgrounds are highly trained or qualified but ability to have their qualifications recognised is difficult Often the key issues are communication, confidence and being able to 'fit in' Digital literacy is an important skill needed in horticulture (e.g. irrigation management).
Support services	<ul style="list-style-type: none"> Issue is often about where jobs are located; many people need support of their local network/community or other support services For some people of CaLD backgrounds they are changing to a completely different context to what they are used to and/or have experienced trauma; coping with uncertainty for some is an issue and stability is important Number of organisations provide services with employment preparation including providing essentials (e.g. clothing or travel costs), referral to other services (e.g. career advice), training (e.g. driving), mentoring, guidance to understand pathways into different industries Post-employment support is critical (for both employee and employer) e.g. induction, WHS legal requirements; both ASRC and BSL provide this with their programs.
Training	<ul style="list-style-type: none"> People on certain visas are not eligible for funding Industry/business need to shift view of training as being a 'cost' 'Earn while you learn' model is particularly important for people from CaLD backgrounds Positive example was provided – they noted staff from CaLD backgrounds weren't progressing in their company and wanted to understand reason for it; issue was mainly due to training, so the business has since organised in-house training for such staff Need also for cultural competency training for employers.
Workshop 2: Northern Victoria agricultural skills for CaLD working group (Dairy)	
Settlement programs	<ul style="list-style-type: none"> AMES support humanitarian entries e.g. individual pathway program (identify goals, aspirations, skill sets); then move onto development program - often focus is language, then move into employment discussion re short, med, long term employment For many 'any income is good one', initially - need to support family AMES subcontract settlement programs to other local providers – case management better through local services.
Dairy industry programs (Dairy Australia (DA) – Regional Development Programs)	<ul style="list-style-type: none"> Want dairy producers to be 'employer of choice'; want to both attract and retain employees Industry programs targeting skills around management and leadership DA also assist in directly linking producers with employment agencies (local and overseas) and can help to onboard new workers Murray Dairy looking to expand programs that work with people from CaLD backgrounds.
Language challenge – supporting CaLD staff	<ul style="list-style-type: none"> Translate operating procedures into a range of languages; translation may not always be 'perfect' Safety on a farm is paramount; need to ensure key basics are understood; if large enough operations, a buddy system can work Online study (e.g. DA milking course) can work well; allows staff to complete at own pace, able to review and look up English terminology; in a face to face course they may get 'lost' in the session Providing written instructions for staff to take home is also helpful – look up English terms English language training at work, incorporating language related to industry or the specific work itself, is more valuable than a CaLD job seeker doing a pre employment English course. Unless the pre-employment training comes with work placements as part of that training, it is not the preferred pathway.
Producer experience with people from CaLD backgrounds	<ul style="list-style-type: none"> Employed people through a range of different visa pathways (WHM – 'backpackers', industry labour agreement, Pacific labour scheme) Diversity training is a '2-way street'; need to take time to understand cultural background of people and also understand our own practices and why we do them

THEMES	
	<ul style="list-style-type: none"> ▪ Assumptions that people with the same CaLD backgrounds will automatically “connect” or get along with each other are not always helpful as individual diversity within cultural groups can be quite large ▪ Provide time and support getting them connected to schools, health system; housing is a critical issue ▪ Often have great people come via these visa pathways but to support them to become permanent residents is extremely difficult (and expensive for the employer) ▪ Shepparton is very culturally diverse and there is possibility of more support ▪ Challenge is being able to continually replace people at the base/entry level; some stay in the business but may move on.
Training experience (GoTafe)	<ul style="list-style-type: none"> ▪ Industry very supportive of training for people if they find the right people ▪ Businesses approach TAFE for training but find out that staff are on the ‘wrong’ visa for funding; difficult from funding perspective ▪ Higher percentage of women undertaking AMES language course; men start but often drop out for work ▪ Offer combination of delivery: classroom, workplace and online; classroom can be useful for pre-employment activities covering safety aspects ▪ Currently have 55 students doing the agriculture certificate, but only 3 doing the certificate 3 for agriculture dairy.
Workshop 3: Western Victoria agricultural skills for CaLD working group (Dairy)	
Skills	<ul style="list-style-type: none"> ▪ Skills shortage across all levels ▪ Ability of any skill level to enter industry; attitude to work is more important ▪ Biggest issues holding dairy back at the moment is labour/workforce ▪ Half of producers in region would be accessing employees through visa pathways ▪ WestVic Dairy help producers with compliance (WHS), employment requirements; could play a role in future with supporting producers with employees from CaLD backgrounds.
Training perspective	<ul style="list-style-type: none"> ▪ Range of courses and programs/services offered by Sth West TAFE and RIST ▪ Biggest issue is unable to access funding for TAFE courses if on particular visa category ▪ Experience with providing training for large meat processing company in area is the workers from CaLD backgrounds are very keen for training ▪ Challenge for dairy producers is that because they have been short staffed for a long time, difficult to release staff for training; short 2–3hour courses offered by DA are valuable here.
Employment services	<ul style="list-style-type: none"> ▪ AMES is the first point of call for refugees: run orientation programs, help identify settlement zones, focus on employment opportunities, work with local providers to access range of services (e.g. Learn locals, TAFE, health centres) ▪ QUALIFY offer a range of services and programs e.g. future employment programs focusing on soft skills; post-employment support – stay with candidate for 6 months & provide assistance to keep them in employment.
Housing	<ul style="list-style-type: none"> ▪ Access to housing is a critical issue for the region.

3.2 INTERVIEWS WITH CALD EMPLOYEES

3.2.1 BACKGROUND

There are challenges in identifying and connecting with CaLD people that may be interested in pursuing employment and a career in agriculture. Practical issues such as access to email and phone may prohibit being able to connect to a wider range of CaLD people but also cultural preferences and individual attributes such as confidence, trust and shyness, can prevent pursuing an agriculture career. These are all valid reasons as to why people of CaLD backgrounds may not be able to or want to participate in an interview. This also suggests as to why there is scarce information on the opportunities that exist in encouraging more people from CaLD backgrounds into agriculture.

The more we consulted with settlements agencies, farmers and individuals from CaLD backgrounds, the more we uncovered the complexities relating to differences in regions, cultures and individuals. Some of these complexities are described below.

- **Cultural/personal**

- People from a CaLD background can be naturally hesitant to speak with someone they don't know, even if that person has been introduced to them by a mutual acquaintance. Levels of trust need to be established, which takes time, and reinforcement of there not being negative consequences
- They are careful of what they are saying as they don't want to seem unappreciative of their current employers (who have nominated them as someone good to talk to)
- Employee's current visa situation means that they might not be able to consider future careers as they are still working on foundational issues such as applying for their family to join them or an insecure visa situation or finding a house.

- **Language and English as an Alternate Language (EAL)**

- If English is an alternate language, then this can create more hesitation to engage
- Anxiety that the questions consultants are asking might be "too hard".

- **Practical**

- Timing of interviews is important especially with industries such as Dairy where milking times leave fewer hours within office hours
- Employers do not always have email addresses of their staff making it difficult to follow up
- Access to decent WIFI means Zoom or Teams can be difficult in some areas and houses
- There can be many steps and intermediaries when accessing interviewees which takes time and patience to work through.

For this project we relied on representatives from each working group to provide recommendations of existing CaLD employees to be interviewed for developing Learning Action Plans (LAPs). The intention of developing LAPs for such employees was to highlight the possible aspirations, opportunities but also challenges for CaLD employees in developing their skills and career in agriculture.

There were difficulties in identifying potential interviewees from the horticulture sector in the Gippsland region, subsequently interviews were conducted with CaLD employees from the dairy sector.

Interviews were conducted with four well-established (i.e. been in Australia for at least five years) CaLD employees, all who had sound English language skills, strong work ethic and educated. This represents only a small proportion of the possible CaLD people interested in agriculture employment and careers. While the interviews provide insights to how CaLD people may be supported to enter and pursue a career in agriculture, there is likely to be a range of other options to be considered for agriculture sectors other than dairy.

There are a range of pathways that CaLD people may arrive in Australia and potential as Figure 3-1 highlights. Employees interviewed came to Australia initially on an agricultural exchange program/traineeship type visa, which does not currently exist or a Working Holiday Visa.

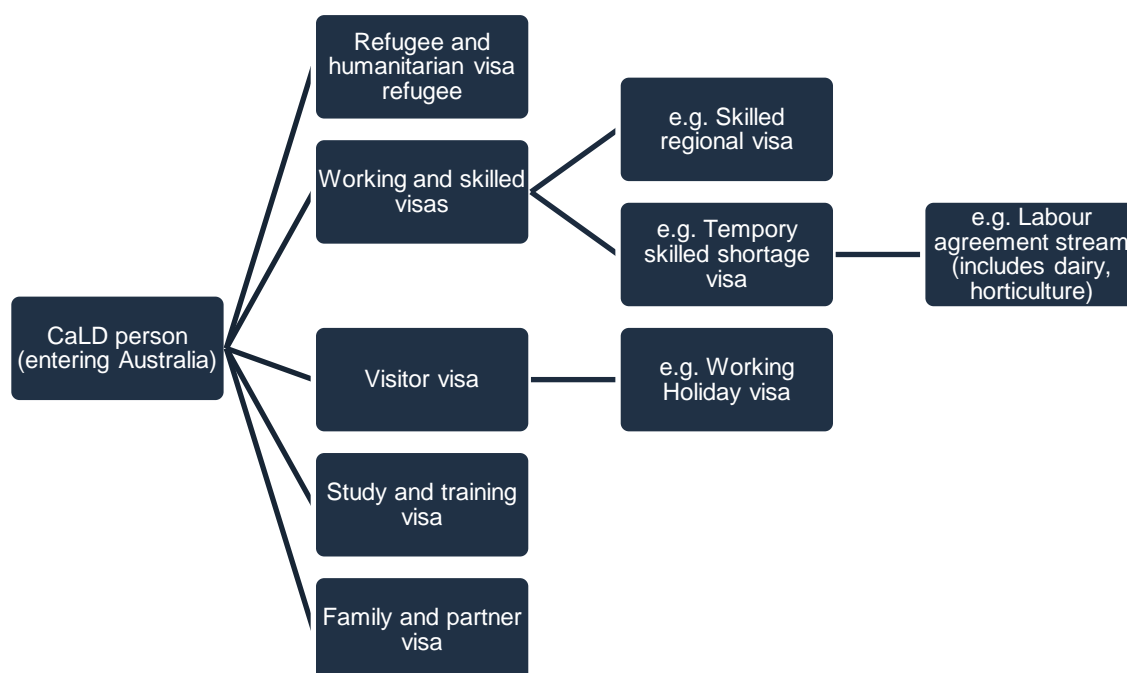


Figure 3-1: Possible pathways for CaLD people to enter employment in Australia agriculture

3.2.2 KEY FINDINGS

Key findings from the interviews are summarised below,

Three Interviews were conducted with CaLD dairy employees of varying cultural backgrounds (i.e. Filipino, Korean, Brazilian) from the same dairy farm in Finley NSW. Two other interviews were conducted with representatives from Victoria's South West region; a dairy employee of Filipino background from a Scotts Creek dairy farm and a manager/owner of dairy farms in Koroit.

Several key themes emerged from these interviews that highlighted the opportunities and challenges for CaLD people to gain employment and develop a career in agriculture.

PERSONAL ATTRIBUTES OF CALD EMPLOYEES

Notably all the CaLD employees had similar personal attributes that have contributed to their initial and ongoing employment in the Australian dairy sector. Some of these attributes can be described as:

- *Resilience* in meeting visa requirements for entry and employment in Australian dairy/agriculture, despite having to often leave Australia and either return to their home country or go to another country (e.g. New Zealand) to re-apply or gain further experience
- *Experience*, qualifications in and/or an understanding of agriculture
- *Adaptable* in applying previous work experience, training and skills to Australian context
- *Strong motivation/determination to learn* and develop new skills, on the job and through formal training
- *Value opportunities* provided by employers in terms of training, new skill development and possibly new roles
- *Affinity* for working with animals, especially dairy cows

- *Self-motivated* to pursue employment and skill development opportunities, including willingness to identify and pay for own training
- *Aspirations* for their future career in agriculture and/or for their family to settle in Australia with them.

The interviewees also revealed the value of existing qualifications and previous experience in agriculture these CaLD employees bring to Australia and their workplaces. Importantly three CaLD employees had previous agricultural qualifications gained in their home country and work experience in various agriculture sectors, including the United States' (US) and New Zealand (NZ) dairy sector. One CaLD employee had previously worked as an agronomist for Syngenta, while another had been '2IC' for a large corporate dairy in New Zealand.

Attributes of self-motivation is highlighted in the example of two CaLD employees who were looking to develop skills in artificial insemination (AI) and pregnancy testing. Both these employees had recognised the potential value in having these skills, noting their employer contracted these services from external providers. They had been able to assist their employer with pregnancy testing where needed, in the absence of contract providers. Each is seeking further opportunities to develop these skills.

ABILITY OF CALD EMPLOYEES TO REMAIN IN DAIRY/AGRICULTURE

Beyond their own personal attributes and ambitions, several external factors were raised in the interviews that potentially impact the likelihood of CaLD employees remaining in (and pursuing a career) in the dairy sector. These factors include:

Skills acquisition:

- Access to basic training (e.g. tractor driving, other Dairy Australia short courses)..

Skills enhancement:

- Awareness of possible employment, training and career opportunities.

Foundational requirements:

- Access to housing, transport and communication resources (e.g. mobile phone, computer)
- Visa pathways (i.e. being able to navigate ongoing or changing requirements)
- Connection to family, community and/or others with shared experience
- Supportive employer - many employers are playing the role of support / settlement service provide.

Visa requirements have been a particular challenge for most of the CaLD employees interviewed and highlight their persistence in trying to secure a visa. Two employees with previous US experience note the expense and challenge in securing a longer-term visa to remain in the US. Two other employees have also been required to leave Australia and return home or elsewhere (i.e. NZ) to meet visa requirements or gain additional experience, before returning to Australia.

A key factor for those CaLD employees with family back in their home country, is the ability to pursue visa pathways for their family to join and settle with them in Australia. This option certainly supports those CaLD employees seeking to remain working in Australian agriculture.

SUPPORT FOR CAREER DEVELOPMENT

The CaLD employees interviewed shared some of their insights about what has supported them in their dairy employment and career development including:

- *Understanding of Australian context* – having some prior understanding of Australia, its agriculture sector and/or workplace settings helps to prepare expectations before arriving in Australia

- *Employment conditions* – acknowledgement that early starting hours (e.g. 4 am) and long working week is not appealing to many people; these conditions can also be challenging to pursue further training
- *Availability of basic training* – all of the employees noted the value of the Dairy Australia courses (e.g. ‘Cups On Cups Off’, quad bike/motor bike handling, silage and feed) in either helping to gain new skills or adapting existing skills to Australian context
- *Housing availability* – without option of housing provided by their employer, most CaLD employees would not be able work given the lack of housing options in many regions; for those in the dairy sector this is seen as critical to have housing on the farm where early morning starts are required
- *Informal networks / channels* – knowledge of possible future employment and training opportunities is often gained through friends, family and other work colleagues
- *Ability of employer to support skill development/interest* – having a supportive employer that can provide opportunities for further skill development either through on the job experience and/or recommending appropriate training courses is recognised as key for those employees with motivation to develop a career in the sector
- *Knowledge of possible career pathways* – having access to formal awareness raising programs regarding careers pathways in the dairy sector or agriculture in general would assist those CaLD employees who want to stay in the sector but are looking for further opportunities to develop
- *English language* – adapting to Australian workplace and training setting is made easier if a CaLD employee has some English language skills; formal TAFE courses are challenging for those with little English and greater support is needed to assist CaLD participants in completing such course.

4 Learning action plans

One of the intended outputs from this project was a Learning Action Plan for each of the CaLD employees. A framework for the Learning Action Plans (LAPs) was provided by the Agriculture Victoria project manager, that would highlight the priority skill area, current skill level and a target level (as determined by the interviewee and possibly employer). The intention of the LAPs was to outline opportunities for skill development for a CaLD employee that may also encourage a continued career in agriculture.

However, this LAP framework was modified to accommodate the dairy CaLD employees willing to participate in the interviews and was based on the skills classification documented in the desktop review report. For each of the four interviewees, a LAP was documented relevant to their experience, career aspirations and potential capacity building needs. Refer to Appendix E for Agriculture Victoria's LAP framework and the adapted LAPs for each of the CaLD employees. However, a summary of the core components from all four CaLD employees' LAPs is provided below

4.1 CURRENT LEVEL OF SKILL

English language skills

All interviewees had sound English skills, developed through previous overseas training and experience (e.g. US, NZ) or developed on the job in Australia. This has certainly assisted their abilities to settle in their employment and communities.

One interviewee who had completed an agriculture diploma at TAFE in Australia, noted the challenges with written English in completing this course.

General farm skills

Three of the interviewees arrived in Australia with previous experience in working in agriculture, including dairy production, poultry farms or growing corn and rice on their own family farm. All arrived in Australia with skills in handling and care of animals, dealing with machinery (e.g. milking sheds), driving tractors /fork lifts and handling chemicals.

All the CaLD employees interviewed noted the value of the Dairy Australia quad bike handling course they had completed.

Specific dairy skills

Three CaLD employees all had specific dairy skills developed through experience working overseas in the US and/or NZ. However, they all note the value of Dairy Australia's short courses (e.g. 'Cups On Cups Off') in supporting their understanding of the Australian context. Notably, they have all sought opportunities to develop further dairy technical skills in artificial insemination (AI) and pregnancy testing.

Other skills and experience

As previously noted in Section 3.2.2, all interviewees had particular personal attributes (e.g. adaptable, flexible, motivated, drive to learn, enjoy working with animals) that has contributed to their positive employment in dairy to date and future career aspirations. In addition, all have previous qualifications and experience that would be of significant value to the dairy sector and agriculture in general. These include, for example, qualifications in agronomy, IT and animal husbandry as well as supervisor experience in corporate dairies in NZ. This highlights the possible 'untapped' potential of CaLD employees and significant opportunity for their future contribution to the Australian agriculture sector.

4.2 FUTURE ASPIRATIONS

CaLD employees, like any other employees, have different work or career aspirations depending on their particular circumstances (e.g. age, health, family, skills, interests, passions, past work history). Three of the employees aspire to further develop their careers in dairy or agriculture, more generally, such as:

- Taking on more responsibility in a management / supervisory role
- Developing further technical skills e.g. irrigation
- Using current technical skills more extensively e.g. AI, pregnancy testing
- Additional agronomy qualifications
- Exploring option of share farming in the future.

One CaLD employee, due to health reasons, is content in his current role and feels well supported by his current employer.

4.3 OPPORTUNITIES FOR CAPACITY BUILDING

Based on developing CaLD employees' LAPs, there are some general opportunities for capacity building that could be considered by relevant stakeholders when supporting people of CaLD background gain employment in Australian dairy sector. These include:

- English in workplace courses
- Dairy Australia short courses – particularly useful for those without previous dairy experience, especially 'backpackers – Working Holiday Makers'
- Micro-credentials for specific technical skills e.g. irrigation, AI, pregnancy testing
- Supervisor / management training (e.g. managing a team, conflict resolution) suited to CaLD people who may be apprehensive about 'supervising' others
- Awareness raising of opportunities in dairy and horticulture with people from CaLD backgrounds from metro and peri-urban areas who are seeking jobs and have interest in agriculture.

5 Discussion

As confirmed in the project activities, including the desktop review, working group sessions, and subsequent conversations with producers, there is currently a significant shortage of both labour and skilled staff in horticulture and dairy industries. To meet these needs, employers are going to great lengths to source staff both locally and from overseas. Notably, the employers that participated in the working group sessions and those interviewed, undertake a range of supporting activities to ensure newly arrived CaLD employees are well settled and equipped.

We have termed these activities “Foundational Requirements”, which may include finding / providing housing, assisting with higher education applications and courses, support for training courses and helping with English language skills. Often significant employer support is provided with the visa application process, which are often expensive and complicated for both employees and employers.

The farmers/business managers we consulted, generally operated large, successful dairy farms and appear to be leading the way with respect to onboarding and maintaining employees from CaLD backgrounds for the longer term. The employees who we interviewed from these farms, all had valuable agriculture / dairy production skills and experience, either from previous training and experience overseas and/or developed here in Australia. All felt they have been well supported in their careers so far. One CaLD employee was content to remain working in similar role while the other three were all ready to take the next steps in their careers.

Based on the activities delivered for this project, we have identified four main questions to explore that are relevant to how CaLD employees remain and develop a career in Australian agriculture. These are:

1. **Skills Acquisition** – How can the current courses and training be tweaked to ensure they are suitable for CaLD employees? (pre-employment skills – driving, WHS, basic dairy and horticulture skills) (digital literacy and future skills - leadership, communication)
2. **Skills Enhancement** – How can the existing skills, some acquired prior to arrival in Australia, be recognised and enhanced to allow CaLD employee ambition to meet future horticulture and dairy needs?
3. **Supporting Employers of Choice** – How can ‘employers of choice’ be supported to ensure they are well equipped to employ and support people of CaLD backgrounds so this to be a positive experience for all involved?
4. **Foundational Requirements** – How can business owners and employees be better supported in these foundational requirements to maximise the long-term prospects of attracting and retaining potential CaLD employees?

These questions are illustrated in Figure 5-1 below and provide the framework for recommendations to support CaLD employees develop a career in Australian agriculture, in this case the dairy sector.

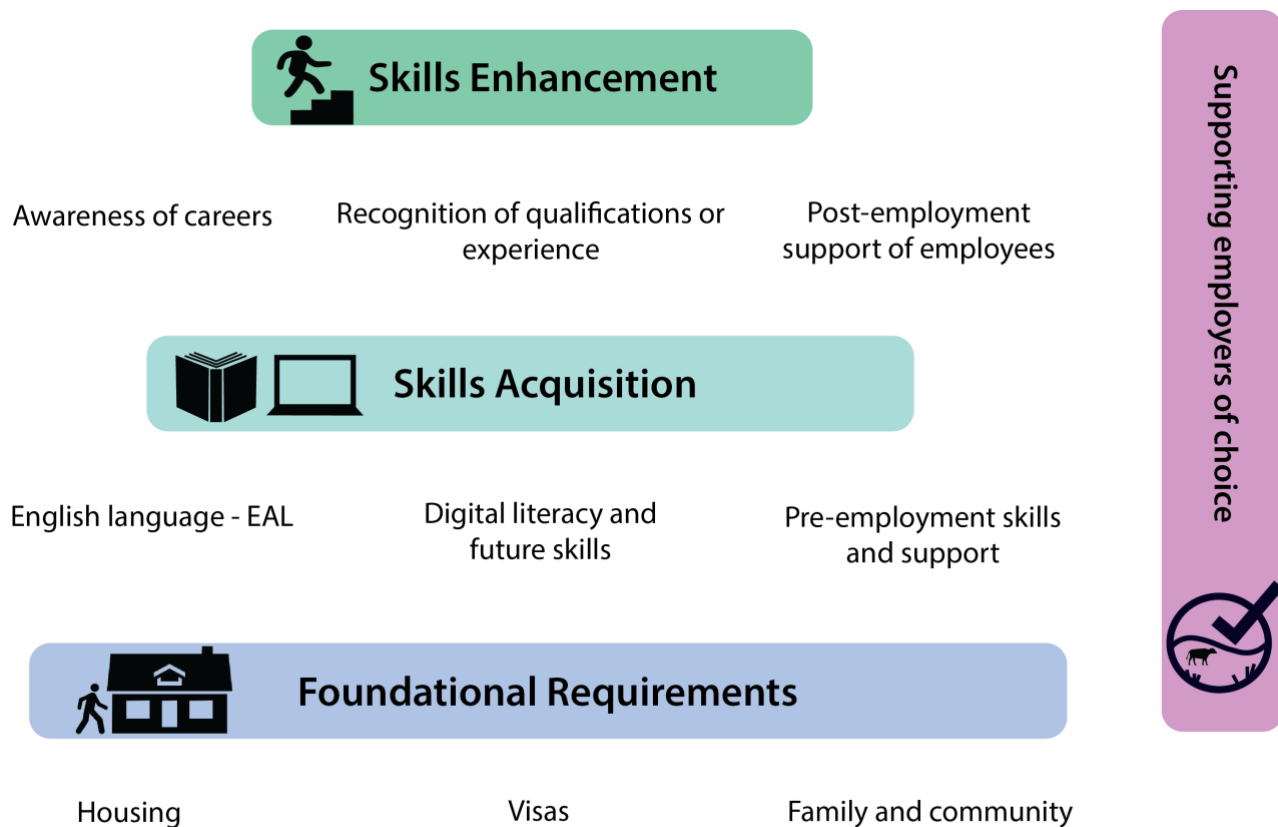


Figure 5-1: Approach to Skills Acquisition and Enhancement for Employees from CaLD backgrounds

6 Recommendations

6.1 SKILLS ACQUISITION AND ENHANCEMENT AND SUPPORTING EMPLOYERS OF CHOICE

Recommendations for how to address the *skills acquisition* and *enhancement* and *supporting employers of choice* are provided in Table 6-1. This plan is based on the challenges, learnings and suggestions from both the working group meetings and interviews with CaLD employees.

The plan highlights the key issues to be addressed and recommendations of who and how to implement the possible solutions.

Table 6-1: Recommendations for supporting CaLD employees remain and develop a career in Australian agriculture

TOPIC	WHO IS LEADING/ COLLABORATING?	BARRIERS OR RISKS	IMPLEMENTATION TIME: SHORT (ST) /LONG (LT) TERM	ISSUE TO BE ADDRESSED AND WHAT'S REQUIRED TO MAKE IT WORK
Skills Acquisition				
Improving the pre-work support process for employers of CaLD staff and CaLD employees themselves	Leading: Dairy Australia Collaborating: Settlement agencies, local support agencies, local government, peak industry bodies	Time and human resources	ST	<p>To improve the knowledge of and access to services to support CaLD employees in the pre-employment stage:</p> <ul style="list-style-type: none"> Map existing services that provide pre-employment support e.g. providing essential (clothing or travel costs), career advice, driving training, (e.g. ASRC and BSL have induction, WHS, legal information etc.) Create a service offering/checklist (regional/local based) of foundational support services to be accessible by employers and employees. Promote the checklist through Peak Industry Bodies and employer networks. <p>Expand Dairy Australia's present programs to assist in linking producers with employment agencies and onboarding with CaLD lens.</p>
English language, safety and onboarding	Leading: Dairy Australia Collaborating: Industry peak bodies, agencies working with CaLD communities	Time and resources	ST	<p>To assist with overcoming language barriers, ease onboarding and improve safety:</p> <ul style="list-style-type: none"> Collate good examples of translated WHS works, plain English video or Virtual Reality products, or written instructions that CaLD employees can easily understand and take home to study if needed. E.g. CFA, Agriculture Victoria seasonal workforce team, Department of Health will have examples. Ensure they include specific needs of CaLD employees for example could include awareness of bushfire risk, biosecurity protocols and food quality standards. Find a central place to house these assets and make it easy for employers and employees to access. <p>Investigate whether online study, face to face or a combination works better for CaLD employees with English as an Additional Language (EAL).</p>
Basic dairy skills acquisition – entry level courses (e.g. cups on cups off, mastitis detection, tractor driving)	Leading: TAFEs or Dairy Australia Collaborating: employers, settlement agencies	Time and resources	ST	<p>To make access to entry level courses as smooth and easy as possible for CaLD employees or potential employees:</p> <ul style="list-style-type: none"> Assess how easy these existing courses are to access, how easy they are to understand for CaLD with EAL, and whether they could be coupled with any of the pre-work information to further promote working in dairy.

TOPIC	WHO IS LEADING/ COLLABORATING?	BARRIERS OR RISKS	IMPLEMENTATION TIME: SHORT (ST) /LONG (LT) TERM	ISSUE TO BE ADDRESSED AND WHAT'S REQUIRED TO MAKE IT WORK
				Work together across Dairy Australia, TAFEs, settlement agencies and employers to package up courses tailored for CaLD employees.
Digital literacy and skills for the future e.g. irrigation management, glasshouse production, Artificial Intelligence (AI) and drones	Leading: TBD Collaborating: If formal qualifications then education providers. If informal then industry peak bodies with education providers.	Awareness of courses by industry, employers and employees. Most employers and employees are time poor due to the difficulty in attracting and retaining staff, so benefits to farms of investing in future skills will need to be communicated.	LT	<p>To ensure that industry continues to grow and be prepared for future challenges and opportunities:</p> <ul style="list-style-type: none"> Investigate who is leading the way in the provision of these skills and who could lead this work. Package together “digital literacy/skills for the future” projects Investigate opportunities such as “Smart Farms” as a way of enhancing these type of courses. Investigate the possibility of designing an “higher apprenticeship” https://www.aapathways.com.au/about/what-are-higher-apprenticeships for these courses tailored to CaLD employees. <p>Co-design ‘learn while you earn’ courses or micro-credentials with education providers experienced in working with CaLD students.</p>
Skills Enhancement				
Increasing awareness and knowledge of career opportunities in the dairy and horticulture sectors	Leading: Dairy Australia Collaborating: all working group members including Agriculture Victoria	Ensuring businesses are supported to allow their staff to attend the sessions e.g. provide casual staff or resources to backfill staff. Need to address any resistance from businesses feeling that exposing their staff to career options may lead to them leaving their business.	ST	<p>To address the lack of knowledge of career pathways by CaLD individuals:</p> <ul style="list-style-type: none"> Organise series of careers information days (or half days) for CaLD employees in dairy and horticulture. Showcasing different sectors, different roles and related industries Include future skills requirements such as artificial intelligence (AI) and autonomous solutions to get people thinking about the possibilities Showcase existing information available in the “People in Dairy Program”
Identify and encourage interested CaLD people to stay in the industry	Leading: Dairy Australia Collaborating: employers	Identifying suitable employees will take time and networking.	LT	<p>To address the specific support and networks that CaLD employees need to be successful and to reach their full potential:</p> <ul style="list-style-type: none"> Design career pathway models or adapt the Dairy Australia models for CaLD audiences and test their feasibility across businesses.

TOPIC	WHO IS LEADING/ COLLABORATING?	BARRIERS OR RISKS	IMPLEMENTATION TIME: SHORT (ST) /LONG (LT) TERM	ISSUE TO BE ADDRESSED AND WHAT'S REQUIRED TO MAKE IT WORK
		Need to assess the feasibility of farms in a region collaborating.		<ul style="list-style-type: none"> explore the possibility of a network of farms to provide secondment opportunities or exposure to different types of farms or roles to provide professional development and retain CaLD employees in the industry. explore graduate programs such as Queensland Farmers Federation Agricultural Extension Work Placement Program⁷ and assess its feasibility with a CaLD lens.
Recognition of previous qualifications or experience	<p>Leading: TAFEs</p> <p>Collaborating: industry peak bodies, Victorian Skills Authority (VSA)</p> <p>Note: VSA can work with TAFE (and other education providers) to reduce the complexity of requirements with the view to encouraging increase in skills for industry.</p>	Working through how to balance the need for rigorous assessment with immediate need for fast tracking the systems.	ST/LT	<p>The current Recognition of Prior Learning (RPL) system is complex and time consuming. To simplify and speed up this process to allow smoother pathways to permanent work for CaLD employees and access and security of staff for employers:</p> <ul style="list-style-type: none"> Collate the benefits of CaLD employees having their experience and/or qualifications recognised in a timelier fashion to meet the immediate needs of industry. For e.g. Could the formal system be complemented by an informal system? TAFE and industry members to work together on a simple system of assessment Involve VSA to support TAFE in making any changes to the current system.
Supporting Employers of Choice				
Build on existing programs and include specific CaLD employees' needs	<p>Leading: Dairy Australia</p> <p>Collaborating: Murray Dairy, West Vic Dairy, Gipps Dairy, Agriculture Victoria, settlement and support agencies.</p>	<p>Any incentives must be tailored to employer's perceived value</p> <p>Time to find and engage interested CaLD staff.</p> <p>Employers' busyness may make it hard for them to release staff for extra programs.</p>	ST/LT	<p>CaLD employees have specific support needs to navigate systems and understand the Australian workplace. To ensure they are accessing employment and career information and connecting with potential employers:</p> <ul style="list-style-type: none"> Work with Dairy Australia and regional bodies (Murray Dairy, West Vic dairy and Gippsland Dairy) to continue to work on sector wide – employer of choice models that include extra elements to support CaLD employees. For example, Dairy Australia's present "People in Dairy Program" program including leadership and management programs could be promoted through CaLD networks and/or a separate section developed for CaLD audiences. https://thepeopleindairy.org.au/ Develop an incentive program or extra support for businesses already providing support to their CaLD employees to ease their

⁷ <https://www.qff.org.au/projects/agricultural-extension-work-placement-program/>

TOPIC	WHO IS LEADING/ COLLABORATING?	BARRIERS OR RISKS	IMPLEMENTATION TIME: SHORT (ST) /LONG (LT) TERM	ISSUE TO BE ADDRESSED AND WHAT'S REQUIRED TO MAKE IT WORK
				<p>load, learn from their experience and recognise their value to industry. Settlement and support agencies can be linked into these programs to broaden the support.</p> <ul style="list-style-type: none"> Identify how employers are currently recruiting CaLD employees and what opportunities there are for an industry wide recruitment process.
Two-way cross cultural awareness courses	<p>Leading: Agencies working with CaLD communities</p> <p>Collaborating: employers</p>	Funds and people time	ST	<p>To facilitate understanding of both the CaLD employees of Australian culture and Australian employers of their CaLD employee's cultures:</p> <ul style="list-style-type: none"> Continue to develop and deliver two-way cross-cultural training for businesses.
Improving the post-work support process for CaLD employees	<p>Leading: Dairy Australia</p> <p>Collaborating: Dairy Australia, Peak Industry bodies, employers, other RTOs e.g. Qualify (RTO)</p>	<p>Time and human resources</p> <p>Communication channels to employers and employees</p>	ST	<p>To improve the knowledge of, and access to, services to support CaLD employees in the post-employment stage:</p> <ul style="list-style-type: none"> Map existing services that provide post-employment support (e.g. mentoring and career advice, Australian workplace English and culture. Create a service offering/checklist (regionally based/local based) of post-employment support services to be accessible by employers and employees. Promote the checklist through Peak Industry bodies and employer and employee networks.

6.2 FOUNDATIONAL REQUIREMENTS

Although out of scope for this project, the working group members and CaLD employees interviewed raised several issues that may present as barriers for CaLD people to either begin working or to develop a longer-term career in agriculture. Similar issues were raised in the previous project *“Identifying opportunities and challenges for Culturally and Linguistically Diverse (CaLD) communities to address workforce gaps in Victoria’s agriculture sector, 2020.”*

Below is a diagram from that report highlighting the main issues raised and researched. We have called these issues “Foundational Requirements” as any skills acquisition and enhancements need to be built on these foundations for long term success.



Figure 6-1: Settlement factors that influence CALD communities to pursue agricultural careers

Discussions in the working group meetings and with the Learning Action Plan interviewees reinforced these factors. Key issues raised as needing addressing from this round of engagement fit into the areas of Housing and Settlement into regional areas, Visas and Family and Community.

Housing and settlement into regional areas

- “...(we are) providing much time and support to our (CaLD) employees - getting them connected to schools, registering for the health system etc. (Employer and member of the working group)
- Housing is a critical issue due to a scarcity of all housing and in particular affordable housing in regional areas

- *“Often have great people come via these visa pathways but to support them to become permanent residents is extremely difficult (and expensive for the employer or employee)”* (Employer and member of working group).

Visas

- Businesses approach TAFE for training but find out that staff are on the ‘wrong’ visa for funding. This adds an extra barrier to sending CaLD employees to train as they are unable to access funding for TAFE courses if they are on a particular visa category
- Need to continue to advocate with new incoming Commonwealth Government around skilled migration to ensure the visas available are assisting businesses in accessing skilled staff or keeping staff who may be on other visas initially e.g. working holiday visas or student visas.

Family and community

- Family members already working or studying in Australia was mentioned by Learning Action Plan interviewees as what encouraged them to come to Australia and provides a basic understanding of the Australian workplace context
- Two out of four Learning Action Plan interviewees had wives and young children. Once they were settled with a permanent job, they were keen to bring their families out to join them. This then necessitates a bigger house and access to services such as community connections for spouses, health and schools for children
- Friends in the community are usually the first point of contact and often where CaLD people go to find out information about careers, courses and jobs.

6.3 WHERE TO NEXT?

Three cross sector working groups were set up as part of this project, providing initial introductions and conversations around the needs and opportunities of the dairy and horticulture industries, agencies working with CaLD communities and education providers. Although finding and retaining CaLD employees comes with many complexities, we believe that following through on the recommended actions and continuing to network between the sectors are the next steps that needs to be taken.

Agriculture Victoria can pass on their learnings to Dairy Australia and other interested peak industry bodies to build on and continue this important work.

This will help ensure the efforts both employers and CaLD employees need to pursue to find employment and remain in the agricultural industry will be lessened, and that industry will have greater access to short- and long-term staff ensuring the success of agriculture in Australia for the future.

Appendix A: Summary of previous research

Summary of previous research and desktop reviews

Skills Gaps in Agriculture and Skills of Culturally and Linguistically Diverse (CaLD) People

Agriculture Victoria
February 2022

Introduction

The following is a summary of the recent desktop review (November 2021) of *Skills Gaps in Agriculture and Skills of CaLD people* and a previous report *Identifying opportunities and challenges for Culturally and Linguistically Diverse (CaLD) communities to address workforce gaps in Victoria's agriculture sector, 2020*. Both reports were conducted by RMCG on behalf of Agriculture Victoria as part of the *Smarter Safer Farms* program.

The aim of the work is to identify the gaps and opportunities for CaLD employees currently working in the agricultural sector (or for potential CaLD employees) and use this knowledge to pave the way forward for the success of both the industries and the people from CaLD backgrounds now and in the future.

RMCG REPORT 1 – WHAT WAS DONE

Identifying opportunities and challenges for CaLD communities to address workforce gaps in Victoria's agriculture sector, 2020

The initial 2020 report comprised of:

- Identifying where CaLD communities are co-located with agricultural industries and understanding the workforce gaps that exist (a mapping exercise using Australian Bureau of Statistics (ABS) data was used to establish these areas with maps showing the details)
- Understanding the support and services required to increase participation of CaLD communities in agriculture, regions and jobs (desktop review and interviews with settlement support agencies, agricultural industry bodies and businesses and educational institutions were conducted to hear the barriers, needs and opportunities in this space. Examples from interviewees and case studies illustrate the key points).

REPORT 1 – WHAT WAS FOUND

The report identified four regions where CaLD communities are co-located with agricultural industries, of which three were chosen by Agriculture Victoria as regions to focus more deeply on identifying skill gaps and opportunities and developing learning action plans to illustrate the opportunities to fill those gaps. These regions are: Northern Victoria, Southwest Victoria and Southeast Victoria and two industries – dairy and horticulture.

The report also considered the skills and labour gaps for the agricultural sector and discussed the barriers that are preventing CALD communities from pursuing a career in agriculture and the opportunities to overcome those barriers. As agricultural areas and jobs are mostly found in rural and regional areas, it also discussed the importance of settlement and support services in those regions and how they are a key factor in encouraging CALD communities into a career in agriculture.

A summary of those findings can be seen in the following three diagrams. They illustrate the complexities of issues raised and the need for the different sectors to work together to truly gain the benefits of a diverse and productive workforce.

- Settlement factors that influence CALD communities to pursue agricultural careers (Figure 1)
- Labour and skills challenges and opportunities for the agricultural industry (Figure 2); and
- Opportunities and challenges for employment and career development pathways for people from CALD backgrounds (Figure 3).



Figure 1: Settlement factors that influence CALD communities to pursue agricultural careers

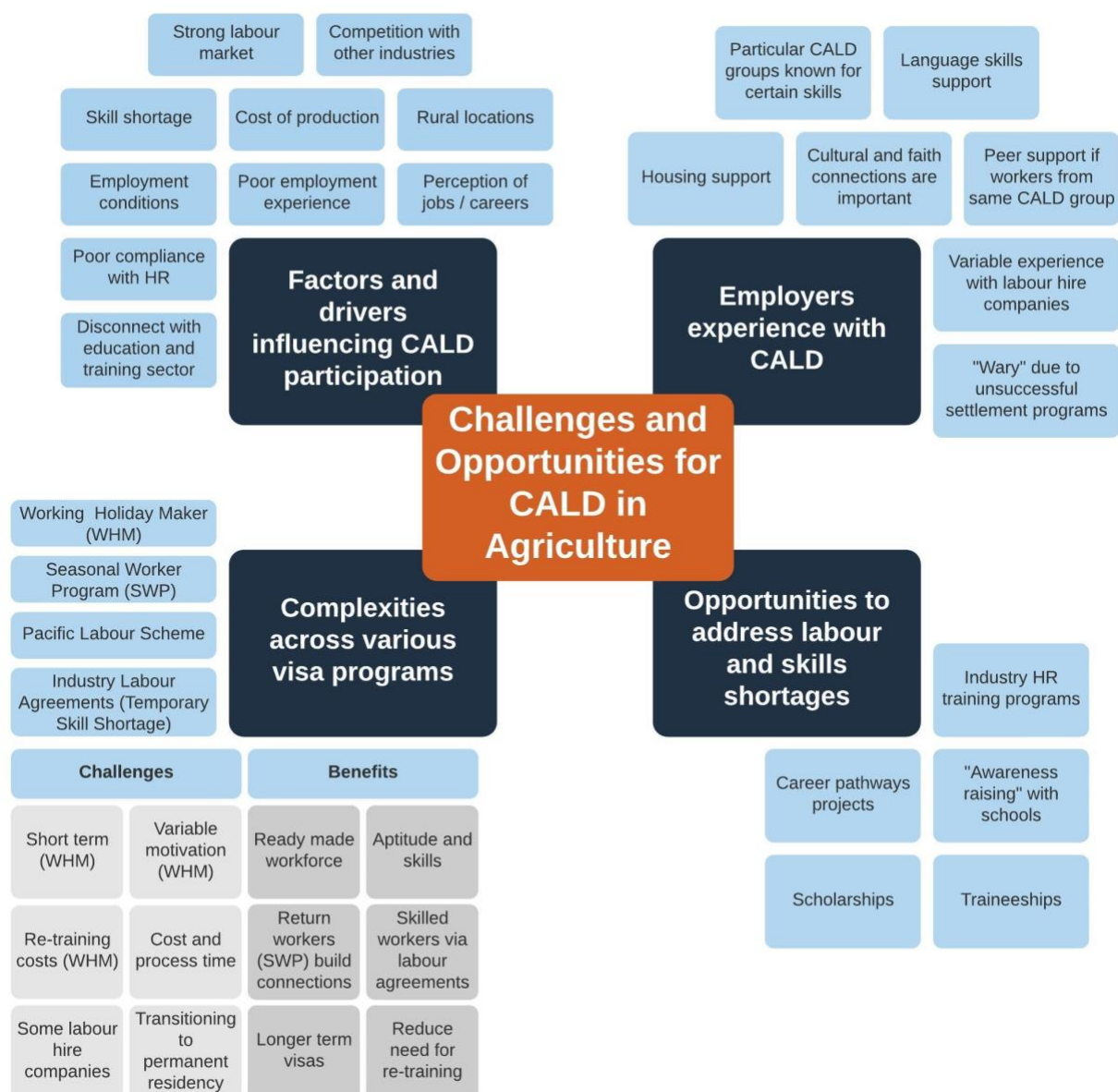


Figure 2: Victorian agriculture sector labour and skills – challenges and opportunities

Opportunities and Challenges for employment and career development pathways for people from CALD backgrounds

Opportunities	Challenges
Clear targeted career pathways guide	English language
Apprenticeships, traineeships and Work Integrated Learning (WIL)	Labour hire and casual work
Promotion of the breadth of jobs available in the agricultural industry	Time and energy to spend on studying
Visas that support training and encourage long term commitment	Knowledge of Australian workforce and networks
Cultural competency (2 way Australian and CALD specific) programs	Visa types
	Knowledge, openness and flexibility of employers when hiring CALD workers

Figure 3: Opportunities and challenges for employment and career development pathways for people from CALD backgrounds

DESKTOP REVIEW 2 – WHAT WAS DONE

Building on the data and knowledge from the first report, RMCG conducted a desktop review to outline the skills gaps in agriculture and the two target industries — dairy and horticulture, to compare them to the skills that CaLD people can bring to the industries. This review provided discussion points for three working groups that have been set up in the target regions and will lead to the development of up to five Learning Action Plans that will illustrate the opportunities to fill those gaps.

The desktop review comprised of:

- A summary of researched skills for future work (including McKinsey Global Institute's 56 foundational skills) illustrating that a high proficiency in such skills is already associated with a higher likelihood of employment, higher incomes, and job satisfaction¹. These include: cognitive, interpersonal, self-leadership and personal skills
- A summary of the key skill requirements for agriculture including: changing workforce needs, types of employment and skill needs, skill development and occupations
- Further breakdown and focus on the specific skill and employment needs for dairy and horticulture sectors
- Skills gaps and opportunities of people from CaLD backgrounds.

¹ [McKinsey: These are the skills you will need for the future of work](#)

DESKTOP REVIEW 2 – WHAT WAS FOUND

The desktop review highlighted the changing needs and environment that the agricultural sector works in, as well as the challenges it faces. More specifically, the review outlines the Dairy Farm Skills Framework and Workforce Plan, and the horticulture sector skill needs and potential career pathways.

Although much information can be found on the barriers to CaLD participation in agriculture, and the workforce in general, very little desktop information was available on the opportunity that exists with CaLD skills and experience. This information was, therefore, mainly sourced from previous interviews conducted in Report 1 with CaLD support agencies and individuals, agricultural businesses, and education providers who had first-hand experience working with CaLD groups and individuals.

In summary, the main barriers were:

- English language,
- Numeracy and literacy skills
- Australian workplace culture and context.

The main opportunities were:

- Entrepreneurial skills
- Innovation and skills specific to dairy and horticulture.

Leadership and management skills are considered both an opportunity and a barrier due to the subtle differences in an Australian setting.

The information from the specific industries of dairy and horticulture together with the gaps and opportunities from employing CaLD people are summarised in Table 1 below. This will form the main discussion point with the working groups, in particular the final column of gaps and opportunities.

Summary of skills gaps and opportunities for CaLD people in the target regions/industries

A summary of the skill needs for agriculture, in particular the dairy and horticulture sectors, as well as how such needs align with the potential skills CaLD people may have, is presented in **Table 1**. Consideration of the opportunity for participating in the workforce is also included.

Table 1: Alignment of skill needs of agriculture sector and potential skills of CaLD people

SKILLS – FARM ENTRY LEVEL	SKILLS – SUPERVISOR/ TECHNICAL LEVEL	SKILLS – MANAGERIAL LEVEL	CALD SKILLS AND GAPS AND OPPORTUNITIES
<ul style="list-style-type: none"> Following WHS procedures Working with chemicals Driving skills – quad bikes, tractors Working with / operating machinery Record keeping Fencing – install, maintain and repair Observing and reporting on weather Respond to emergencies. 	<ul style="list-style-type: none"> Work plan development Record keeping Implement and monitor quality assurance procedures Maintain health and safety processes Manage water / irrigation systems Diagnose plant health problems Develop soil health and plant nutrition program Management of technology. 	<ul style="list-style-type: none"> Develop and review business plan Plan and managing infrastructure requirements Develop Whole Farm Plan Manage finances – investment decisions, commercialisation Manage human resources – labour management Design Quality Management Systems Compliance management Contact management. 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Previous agriculture experience Business management skills Leadership in own community Innovation. <p><u>Gaps</u></p> <ul style="list-style-type: none"> English language skills, especially for reading of technical information (e.g. chemical labels) Numeracy and literacy skills Ability to convert or lack of recognition for existing licences and qualifications Limited resources (time, finances) to update / translate relevant skills.
<ul style="list-style-type: none"> Communication – active listening 	<ul style="list-style-type: none"> Supervising work routines and performance Team building – resolving conflicts 	<ul style="list-style-type: none"> Self-leadership – goals achievement, self-confidence, entrepreneurship, courage 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Strong work ethic Adaptability

SKILLS – FARM ENTRY LEVEL	SKILLS – SUPERVISOR/ TECHNICAL LEVEL	SKILLS – MANAGERIAL LEVEL	CALD SKILLS AND GAPS AND OPPORTUNITIES
<ul style="list-style-type: none"> Working with others / in a team effectively Reliability Adaptability to work in range of environments Strong work ethic to completing tasks Accepting feedback. 	<ul style="list-style-type: none"> Decision making Time management and prioritisation Critical thinking – problem solving, seeking relevant information Mental flexibility. 	<ul style="list-style-type: none"> Mobilising systems – role modelling, negotiations, providing vision Developing relationships – industry connections / leadership Teamwork effectiveness – motivating, coaching, empowering, supporting inclusiveness, resolving issues Critical thinking – problem solving, logical reasoning, seeking relevant information Communication – asking right questions, active listening, public speaking Mental flexibility. 	<ul style="list-style-type: none"> Resourcefulness Ability and willingness to learn Leadership and management skills Entrepreneurial skills. <p><u>Gaps</u></p> <ul style="list-style-type: none"> Understanding workplace culture and context Networks to relevant opportunities Confidence Poor past employment experience.
<ul style="list-style-type: none"> Handling livestock Care for health and welfare of livestock Carry out calving duties Provide feed for livestock Maintain water supply for livestock Milking duties Assist with artificial insemination. 	<ul style="list-style-type: none"> Manage implementation of milking shed routines Develop livestock health and welfare strategies Manage pastures / supplement feed for livestock production. 	<ul style="list-style-type: none"> Manage livestock production Develop and implement a breeding strategy. 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Strong affinity and experience in working with animals (depending on CaLD background). <p><u>Gaps</u></p> <ul style="list-style-type: none"> Transportation/ access to dairy farms.
<ul style="list-style-type: none"> Plant identification Harvesting duties 	<ul style="list-style-type: none"> Design / implement Integrated Pest Management program 	<ul style="list-style-type: none"> Production system decisions – protected production, greenhouse 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Past experience in horticulture

SKILLS – FARM ENTRY LEVEL	SKILLS – SUPERVISOR/ TECHNICAL LEVEL	SKILLS – MANAGERIAL LEVEL	CALD SKILLS AND GAPS AND OPPORTUNITIES
<ul style="list-style-type: none"> Post harvest duties – grading, packing. 	<ul style="list-style-type: none"> Manage field trials Labour management for harvest Oversee post harvest activities – grading, cool storage, logistics. 	<ul style="list-style-type: none"> soil substrate management variety selection Design / implement Integrated Pest Management program Postharvest management Supply chain management Marketing/ promotion/ selling Export development / management. 	<ul style="list-style-type: none"> Opportunity for part time / seasonal employment Potential opportunities through supply chain (e.g. production, harvest, packing, logistics). <p><u>Gaps</u></p> <ul style="list-style-type: none"> Poor past employment experience (or awareness of) Transportation / access.

Appendix B: Desktop review report

Desktop review – Skills Gaps in Agriculture and Skills of Culturally and Linguistically Diverse (CaLD) People

Agriculture Victoria
November 2021

1 Background

1.1 PURPOSE

This desktop review builds on a previous report by RMCG on behalf of Agriculture Victoria, *identifying opportunities and challenges for Culturally and Linguistically Diverse (CaLD) communities to address workforce gaps in Victoria's agriculture sector, 2020*.

The report assisted Agriculture Victoria in identifying three target regions – Northern Victoria, Southwest Victoria and Southeast Victoria and two industries – dairy and horticulture. Agriculture Victoria has chosen these regions and industries as the focus for identifying skills gaps and opportunities, and developing learning action plans to pave the way forward for the success of both the industries and the people from CaLD backgrounds working now and in the future in agriculture.

The purpose of this desktop review is to outline the skills gaps in agriculture and, in particular, in the two target industries of dairy and horticulture, and compare them to the skills that CaLD people can bring to the industries. It is to provide discussion points for three working groups that have been set up in the target regions and to lead to the development of up to five Learning Action Plans to illustrate the opportunities to fill those gaps.

1.2 SKILLS FOR FUTURE WORK

There is a general understanding that digital and artificial intelligence (AI) technologies are transforming the world of work and that today's workforce will need to learn new skills and learn to continually adapt, regardless of the industry. There is an expectation that manual and physical skills along with basic cognitive ones will be decreasing in demand and the need for technological, social and emotional, and higher cognitive skills will increase. Still, there are some types of manual work in horticulture and the dairy industry that will not be replaced in the short term. The current global COVID-19 pandemic has added to this complexity of work and required skills.

McKinsey Global Institute have completed research to support governments' endeavours in 'future-proofing' citizens' skills for work. The research identified a set of 56 foundational skills that they indicate will benefit all people, illustrating that a high proficiency in such skills is already associated with a higher likelihood of employment, higher incomes, and job satisfaction¹. It is presented here as key foundational skills that all potential workers may need to develop for the future.



Figure 1-1: Foundational skills for work identified by McKinsey

¹ McKinsey: These are the skills you will need for the future of work

2 Key skill requirements in agriculture

2.1 CHANGING WORKFORCE NEEDS OF AUSTRALIAN AGRICULTURE²

Australia has been experiencing critical changes that impact on the rural and regional workforce and therefore on farms, as well as in processing industries and other agribusinesses located in these areas. These changes include an ageing population, more family members working off-farm, internal migration from rural and regional areas to urban centres and low unemployment rates since the early 2000s; all of which contribute to a competitive labour market and impact on the agriculture sector in attracting the workforce it needs. The image of agriculture as a primarily hands-on industry with few career options adds to the challenges for the sector.

There also have been changes in agricultural production, being more market-orientated and internationally competitive in some sectors, along with development of value-added processes. This has been underpinned by increased agricultural productivity with farm consolidation, intensification, and corporatisation along with investment in new technologies driving this increase. All these factors continue to influence the size, structure and skill needs of the agricultural workforce.

However, workforce needs vary between the different agriculture sectors reflecting differences in production systems, degree of mechanisation and industry structure (farm sizes, ownership, supply chains). For example, growth in horticulture production and the need for many crops to be harvested by hand, means horticultural business have considerably larger, mainly seasonal, workforce requirements than dairy or broadacre grazing and cropping businesses. There is continued demand for casual as well as temporary and seasonal workers in the horticulture sector, but also dairy and cotton are increasingly relying on more casual labour rather than relying on family members or offering full or part time permanent employment.

Demographic changes across smaller farms are seeing the need for more hired labour, while farm consolidation is presenting opportunities for managerial positions. Technology adoption and other innovations on farm and through the supply chain is driving the need for more skilled workers. Still, the current agricultural workforce still has a large proportion of people that perform hands on jobs and this is expected to remain so in the medium term.

The described dynamic industry and thus workforce changes across agricultural industries means increasingly business owners need more advanced management and leadership skills to manage larger and more complex operations.

2.2 TYPES OF EMPLOYMENT AND SKILL NEEDS³

Results from ABARES 2018 farm labour survey confirmed, unsurprisingly, that large farms employed a greater range of occupations. They also employed a higher proportion of labourers and workers with machine operator and technical skills compared to smaller farms. However, relatively, these larger operations employ a lower proportion of managerial and clerical staff.

² This section based on information from the following documents:

Department of Agriculture, Water and the Environment and the National Agricultural Labour Advisory Committee 2020, *National Agricultural Workforce Strategy discussion paper*, Canberra, February. CC BY 4.0.

Department of Agriculture, Water and the Environment, 2020, *National Agricultural Workforce Strategy – Discussion Paper*.

Dufty, N, Martin, P & Zhao, S 2019, *Demand for farm workers: ABARES farm survey results 2018*, ABARES research report, Canberra, September. CC BY 4.0.

³ This section is based on information from Dufty, N, Martin, P & Zhao, S 2019, *Demand for farm workers: ABARES farm survey results 2018*, ABARES research report, Canberra, September. CC BY 4.0.

On family farms, management roles are usually held by the owner-manager and their spouse or other relatives, reflecting the dominance of owner-managers in agriculture. Dafty *et al* (2019) note that usually these management roles aren't duplicated as more workers are employed. However, as farms become larger, intensify, or amalgamate, more skilled roles are needed which leads to more permanent positions.

The ABARES farm labour survey highlighted that labourers on horticultural farms were primarily employed as casual and contract workers. On dairy farms, a greater proportion of labourers were employed in full-time positions. This can be attributed to long milk production seasons and intensive production systems for many dairy farms that increase the need for permanent staff, as well as a greater use of labour beyond the family compared to broadacre farms.

2.2.1 SKILL DEVELOPMENT IN AGRICULTURE

Some of the larger farming businesses like to employ young people 'on the shop floor' and develop their skills in house and/or by sending them to formal or informal training. One of the main demands when asking employers in agriculture about training needs or qualification requirements is to get people with the right attributes and attitudes. The argument is that they can 'train good people' on the job. The quality of this type of 'training' varies greatly depending on business size and people management skills. Most positions in agriculture do not have a position description, even in relatively large-scale operations.

Many agricultural operations do not require a qualification from their employees and the type and variable quality of formal training that is available, all contributes to a relatively negative attitude towards training by many agricultural businesses. In general, training is more valued in the dairy industry than in the horticulture industry. The reason is that dairy has an industry focussed training package while the horticulture training package is not specific for different sectors (e.g. fruit or vegetables), and it is not offered by most Register Training Organisations (RTOs). Mostly people who want to train in horticulture on a VET level, are pushed into agriculture courses.

2.2.2 OCCUPATIONS IN AGRICULTURE

The Australian and New Zealand Standard Classification of Occupations (ANZSCO) provides a basis for the standardised collection, analysis and dissemination of occupation data for Australia and New Zealand. ANZSCO is designed to classify all paid workers into a range of occupations that are organised into progressively larger groups based on their similarities in terms of both skill level and skill specialisation.

A broad outline of occupations available in the agriculture sector, based on ANZSCO is provided in the table below (Table 2-1).

Table 2-1: Worker occupations definitions⁴

OCCUPATION	EXAMPLES	INDICATIVE QUALIFICATION
Managers	Farmer or farm manager, chief executive or general managers, specialist manager—such as in advertising, sales, business admin, ICT.	Bachelor's degree or above, or at least 5 years of relevant expertise.
Professionals	Agronomist, veterinarians, human resource (HR) specialist, plant scientist, lawyer, marketing, engineer, environmental scientist, accountants.	Bachelor's degree or above in specific field.
Technicians and trades	Skilled animal or horticultural worker, construction trade (e.g. plumber and carpenter), mechanic, chef.	Bachelor's degree or Cert II and 2 years on the job training or 3 years on the job training.
Clerical and administrators	Bookkeeper, project administrator, secretary, office support.	Bachelor's degree or Cert II and 2 years on the job training or 3 years on the job training
Machinery operators and drivers	Harvester operator, forklift operator, processing machine operator.	Cert II or cert III or formal experience related training
Labourers	General farm hand, wool handler, stable hand, vegetable or fruit picker, packers, meat processing worker.	Can require no formal training

Industry stakeholders note, however, that the ANZSCO classifications don't accurately reflect modern job roles in agriculture, and they regularly report frustrations with trying to identify suitable classifications⁵. The classifications do not do justice to the range of roles in the dairy industry nor the diversity of roles in the horticulture industry. This is illustrated with the limited ANZSCO title job roles listed with the AHC Agriculture, Horticulture and Conservation and Land Management Training Package⁶:

Industry stakeholders believe the current ANZSCO structure has several issues including:

- Attaching low skill levels to many on-farm occupations, which is not in line with changing skill levels of these jobs due to technology and innovation adoption, farm consolidation, corporatisation, more sophisticated land and animal management techniques being employed, and regulation increases
- Poor recognition of the middle tier of on-farm occupations with decision-making authority and higher skill sets than the labour category indicates
- Lack of reflection of the granularity in AgriFood occupations (i.e. agribusinesses and the supply chain as well as specialised occupations and trades required) and consequently AgriFood workforce data
- Complicating industry efforts to address recruitment difficulties through migration avenues.

⁴ Ibid

⁵ Azarias, J, Nettle, R & Williams, J 2020, National Agricultural Workforce Strategy: Learning to excel, National Agricultural Labour Advisory Committee, Canberra, December. CC BY 4.0

⁶ Agriculture, Horticulture and Conservation and Land Management Industry Sector, IRC Skills Forecast and Proposed Schedule of Work 2019–2022 (Prepared on behalf of the Agriculture, Horticulture and Conservation and Land Management Industry Reference Committee for the Australian Industry Skill Council (AISC)); see https://www.skillsimpact.com.au/site/skillimpactmedia/uploads/2019/05/ISF.AHC_IRCskillsForecast.2019-2022.Final_.pdf?x89069

ANZSCO Title Job Roles as currently listed against AHC Qualifications:

- Farmers and Farm Managers
- Farm, Forestry and Garden Workers
- Crop Farmers
- Pig Farmer
- Crop Farm Workers
- Dairy Cattle Farm Worker
- Livestock Farm Workers
- Poultry Farm Worker
- Mixed Crop and Livestock Farm Worker
- Grain, Oilseed or Pasture Farm Worker
- Grape Grower
- Apiarist
- Agricultural Technician
- Wool Handler
- Wool Classer
- Shearer
- Agricultural Engineer
- Stock and Station Agent
- Pest Controller
- Park Ranger
- Nurseryperson
- Landscape Gardener
- Arborist
- Garden Labourer
- Greenkeeper
- Horticultural Nursery Assistant
- Technicians and Trades Worker
- Mobile Plant Operators
- Gardeners.

2.2.3 OVERVIEW OF SKILL NEEDS

An assessment by the Australian Industry Skills Council (2016), identified key trends that could drive changes in workplace design and therefore the possible skills needed in the agriculture sector, including horticulture and dairy, as summarised in Table 2-2.

Table 2-2: Skills outlook (adapted from Australian Industry Skills Council (2016))⁷

DRIVER	SKILLS OUTLOOK
Transition to ongoing implementation of new processes and technologies in irrigation.	Skills required around various types of irrigation such as pressurised irrigation operations and gravity fed irrigation systems.
The National Agvet Chemical Task Force working group harmonisation to chemical training requirements, including a review of state based regulatory frameworks and future developments in managing spray drift risks.	Skills required in the industry are required to reflect the recommendations of the Task Force.
Transition to new technology and processes used in conservation and land management.	New knowledge and operational capacity to optimise technology.
Recent deaths on quadbikes have led to concern over the safety of operation. New machinery may be used instead of quads (i.e. drones).	Concern regarding the level of skills of quadbike operators. New and emerging skills will be required for the use of new technology such as drones.
Over reliance on chemicals to manage pests is causing concerns environmentally with increasing resistance to chemicals requiring new variants of chemicals to be developed. A holistic approach of balancing chemical use with a greater use of introducing beneficial insects and use of organic rather than chemical agents will be more environmentally sustainable benefitting the overall ecosystem.	Industry requires skills in botanical knowledge, pruning techniques, grafting techniques, plant identification, pest identification, integrated pest management, and identifying soil/media composition.
Online shopping and ordering has increased the sales footprint of many organisations leading to an expansion in the delivery and sourcing of products from longer distances. Logistics management is a growing skill need for small to medium enterprises.	Higher level supply chain and logistics skills required to support lean, fast, reliable, transparent and collaborative relationships with key suppliers and customers and with other companies, including competition and research organisations
Free trade agreements have opened opportunities for market access to Australian farmers.	Skills required in how to export food to emerging markets and global logistics.
Investment in integrated technology, such as robotics and digital and wireless technology to monitor farm operations and detect crop issues. Also, requirements for quality standards in operations, and industry databases (including commodity-specific production platforms and other technology platforms)	Need for skills in strategic planning, risk management, mergers and acquisitions, online marketing business development and financial planning to respond to the dynamic and changing operating environment, with increased competition and opportunities to reach global markets.

⁷ [Agriculture, Horticulture and Conservation and Land Management Industry Sector, IRC Work Plan 2016 – 2019](#) (Prepared on behalf of the Agriculture, Horticulture and Conservation and Land Management Industry Reference Committee for the Australian Industry Skill Council (AISC))

DRIVER	SKILLS OUTLOOK
Increasing market demand for innovation in product development to ensure viability of enterprises.	New knowledge and operational capacity related to innovation and product development.
<p>Growing investment in integrated farm technology, quality standards and data analysis are expected to influence the roles of farmers.</p> <p>Continuous development of biotechnology with new discoveries providing the potential to support farmers with emerging challenges, including those arising from climate change, pressure on global food supplies and fresh water, and the management of pests and diseases, will add to the vocational outcomes of agricultural work sector.</p>	In response to climate change and government policy, knowledge of relevant science, digital and analytical skills, assessing crop health, data capture from a range of devices, and strategic planning and business management.
The changing landscape of animal welfare, farm gate milk processing technology, increasing automation and low milk pricing have broader implications on training.	Skill needs in the areas of milking automation, animal welfare, and processing technology.

Supporting this skills outlook, is KPMG's assessment of the megatrends that will impact on Australia's agriculture workforce as outlined in Table 2-3.

Table 2-3: Megatrends impact on agriculture workforce (adapted from KPMG 2019)⁸

MEGATRENDS	KEY WORKFORCE IMPACTS
Increased food demand	<ul style="list-style-type: none"> Need for attraction and retentions strategies, migrant labour and up-skilling existing labour Efficiency in value chain to produce more with less while addressing the challenges of food waste.
Socially aware consumers	<ul style="list-style-type: none"> Understand the consumers' signals and meet rapidly changing consumer preference Workforce needs to enhance competencies in traceability strategies to communicate on food provenance.
Resource depletion	<ul style="list-style-type: none"> Learning to do more and 'better', with less and increasing awareness of changing environmental trends (e.g. importance of protecting biodiversity) Increasing farm management complexity and skills requirement.
Connected digital world	<ul style="list-style-type: none"> Enhancing capabilities in data collection, storage, and utilisation Increasing farm management complexity and skills requirement.
Increasing regulations	<ul style="list-style-type: none"> Workforce needs to keep up to date with changes in regulations and pragmatic in compliant responses and communication that is moving to digital practices.
Increasing severity of climate emergencies and biosecurity risks	<ul style="list-style-type: none"> Enhancing capabilities in emergency preparedness and recovery Increasing risk management skill requirement.
Carbon emissions	<ul style="list-style-type: none"> Scanning and understanding impact of global supply chain scrutiny on carbon emissions Preparing for implications of carbon trading (e.g. carbon sequestration).

⁸ KPMG and Skills Impact (with contributions from Faethm and The University of Queensland), 2019, Agricultural Workforce Digital Capability Framework

Historically, most on-farm workers in the agriculture sector have acquired their skills through on-the-job learning. However, whether this is enough to address the current and skill needs illustrated above, is currently under debate, particularly for areas where there are technological changes and a strong need for management skills⁹.

Based on this high-level desktop review and RMCG's previous project experience related to agriculture workforce development, skills gaps and career pathways, a summary of the core skills required by the agriculture sector are highlighted below.

Summary of the core skills the agriculture sector requires:

- Leadership – individual leadership and industry leadership
- Management – business, people, risk
- Business administration
- Financial literacy
- Work, Health and Safety
- Technology (e.g. Internet of Things)
- Trades
- Agronomy
- Water supply management, irrigation
- Animal husbandry
- Natural resource management – water, soils, biodiversity
- Climate change adaptation and mitigation, carbon sequestration, emission reduction
- Waste management
- Machinery operation and maintenance (esp. advanced technology)
- Sales
- Commercialisation and marketing
- Regulation – understanding and implementing requirements
- Emergency management – preparedness, recovery, including biosecurity
- Export
- Science and research
- Innovation.

⁹ Department of Agriculture, Water and the Environment, 2020, National Agricultural Workforce Strategy literature review, Canberra, February. CC BY 4.0.

2.3 DAIRY SECTOR

Dairy farms seek employees with higher skill levels than some other agricultural industries, reflecting the complex capabilities required in dairy farming systems¹⁰. The industry requires skilled people to work with animals, technical milking equipment and other complex farm machinery. The industry suggests that very few jobs on a dairy farm can be successfully undertaken by unskilled workers and that dairy farmers and their workers need more than 170 separate skills in 11 specialist areas to run a successful farm business, which include¹¹:

- Fencing
- Natural resources
- Animal husbandry, health and welfare
- Biosecurity
- Working with machinery
- Occupational health and safety
- Feeding livestock, pastures and soil
- Irrigation and water
- Working with chemicals
- Working with animals
- Milk harvesting, food safety and quality assurance
- Business management and
- Human resource

For example, specific technical skills and knowledge are required in the management of mastitis, in the implementation of food safety requirements and for supervising skilled workers.

2.3.1 DAIRY INDUSTRY SKILLS FRAMEWORK (DISF)¹²

The Dairy Industry Skills Framework was created in 2016 and is used by the dairy industry and Vocational Education and Training sector to classify the various occupations in the dairy industry, as outlined in Table 2-4. The DISF maps skills against each dairy farm occupation and provides a summary of skilled roles and tasks required in the dairy industry.

¹⁰ <https://www.farmonline.com.au/story/7192438/a-skilled-workforce-is-essential/>

¹¹ Australian Dairy Farmers and Dairy Australia, 2021, Response to Targeted update of agricultural sector occupations in ANZSCO: discussion paper

¹² This section based on information from Australian Dairy Farmers and Dairy Australia, 2021, Response to Targeted update of agricultural sector occupations in ANZSCO: discussion paper

Table 2-4: Dairy Farm Skills Framework (roles)

FARM SKILLS FOR:	FARM BUSINESS MANAGER	FARM PRODUCTION MANAGER	SENIOR FARM HAND	FARMHAND	ASSISTANT FARM HAND
Business	<ul style="list-style-type: none"> Manage the Production System Design and Manage the Enterprise Quality Management System Analyse Business Performance 	<ul style="list-style-type: none"> Plan and Manage Infrastructure Requirements Develop and Review a Business Plan' Plan Production for the Whole Land/Farm Based Business 	<ul style="list-style-type: none"> Manage Finances 		<ul style="list-style-type: none"> Collect and Record Production Data
People	<ul style="list-style-type: none"> Manage Estate Planning Manage Human Resources Lead and Manage Community/Industry Organisations 	<ul style="list-style-type: none"> Manage enterprise staff requirements 	<ul style="list-style-type: none"> Supervise work routines and staff performance 		<ul style="list-style-type: none"> Work Effectively in the Industry Participate in Workplace Communication
Natural resource management		<ul style="list-style-type: none"> Develop a Whole Farm Plan 		<ul style="list-style-type: none"> Operate Gravity Fed Irrigation Systems OR Operate Pressurised Irrigation Systems Operate a Dairy Recycling System 	
Feedbase		<ul style="list-style-type: none"> Manage water systems Manage integrated crop and pasture production 	<ul style="list-style-type: none"> Diagnose plant health problems Develop livestock feeding plans Develop a soil health and plant nutrition program Manage Pastures for Livestock Production 	<ul style="list-style-type: none"> Implement a Plant Nutrition Program Implement Feeding Plans for Livestock Establish Pastures and Crops for Livestock Production 	<ul style="list-style-type: none"> Provide Feed for Livestock

FARM SKILLS FOR:	FARM BUSINESS MANAGER	FARM PRODUCTION MANAGER	SENIOR FARM HAND	FARMHAND	ASSISTANT FARM HAND
Animals		<ul style="list-style-type: none"> ▪ Develop Production Plans for Livestock ▪ Develop Livestock Health and Welfare Strategies ▪ Develop and implement a Breeding Strategy ▪ Manage Livestock Production 	<ul style="list-style-type: none"> ▪ Supervise Animal Health Programs ▪ Manage the Implementation of Milking Shed Routines 	<ul style="list-style-type: none"> ▪ Carry out Birthing Duties ▪ Implement Animal Health Control Programs ▪ Rear Newborn and Young Livestock ▪ Coordinate Milking Operations ▪ Artificially Inseminate Livestock 	<ul style="list-style-type: none"> ▪ Care for Health and Welfare of Livestock ▪ Handle Livestock Using Basic Techniques ▪ Milk Livestock
Other			<ul style="list-style-type: none"> ▪ Maintain work health and safety processes ▪ Implement and Monitor Quality Assurance Procedures 	<ul style="list-style-type: none"> ▪ Operate quad bikes ▪ Contribute to WHS procedures ▪ Plan and Construct an Electric Fence ▪ Transport, Handle and Store Chemicals ▪ Prepare and Apply Chemicals to control pests, weeds and diseases ▪ Respond to Emergencies ▪ Operate Specialised Machinery and Equipment 	<ul style="list-style-type: none"> ▪ Observe and Report on Weather ▪ Maintain Livestock Water Supply ▪ Observe Environmental Work Practices ▪ Assist with soil or growing media sampling and testing ▪ Operate two-wheel motorbikes ▪ Provide Basic First Aid ▪ Apply Chemicals Under Supervision ▪ Follow WHS Procedures ▪ Operate Tractors ▪ Install, Maintain and Repair Fencing

2.3.2 DAIRY WORKFORCE PLANNING

The recently developed Australian Dairy Plan¹³ has identified workforce planning including attracting, supporting, retaining, investing in building industry capacity and improving industry culture as a key priority in the transformation of the industry as part of its strategic plan for 2020 – 2025. The Plan acknowledges and will build on existing programs that focus on learning and capability development, as well as industry-wide leadership.

For example, the Pathway for People in Dairy program aims to attract job seekers, accelerate induction and maintain a portable skills registry. Linked to this program, is the Dairy Passport initiative, which is being delivered by Dairy Australia, and enables job seekers to prepare for a career in dairy, supporting new entrants to develop essential skills required for on-farm roles¹⁴.

In addition, the recently developed Dairy Industry Leadership Strategy outlines a plan to develop leadership capabilities of people in the sector and to build a positive industry culture.

¹³ <https://www.dairyplan.com.au/about-the-dairy-plan>

¹⁴ <https://www.farmonline.com.au/story/7192438/a-skilled-workforce-is-essential/>

2.4 HORTICULTURE SECTOR

The horticulture sector is the third largest in Australia, after livestock and grains, and has seen significant changes in the industry structure over the past decade or more. The sector has moved beyond a ‘market garden’ mindset to one that encompasses a range of business management facets, including supply chain, technology, product innovation, export competitiveness and workforce management¹⁵. Horticultural businesses also need to meet a range of compliance responsibilities, including biosecurity, workplace health and safety, labour management, pesticide management, food safety, customer relationships and environmental sustainability. The latter is also likely to include responsibilities around the management of waste and carbon emissions in the future.

However, small to medium enterprises cannot afford to employ several specialists to cover this increasing array of technical and other business management tasks. Many require multi-skilled staff in management positions. RMCG (2019) in the development of the *Nursery industry career pathway development strategy* highlighted the importance of such staff and adopted a two-tier classification system of job levels¹⁶. The classification includes positions that require independent decision-making as skilled jobs (‘deciders’), and jobs which are mostly about carrying out instructions provided by others as semi-skilled or non-managerial jobs (‘doers’) as highlighted in Figure 2-1¹⁷.

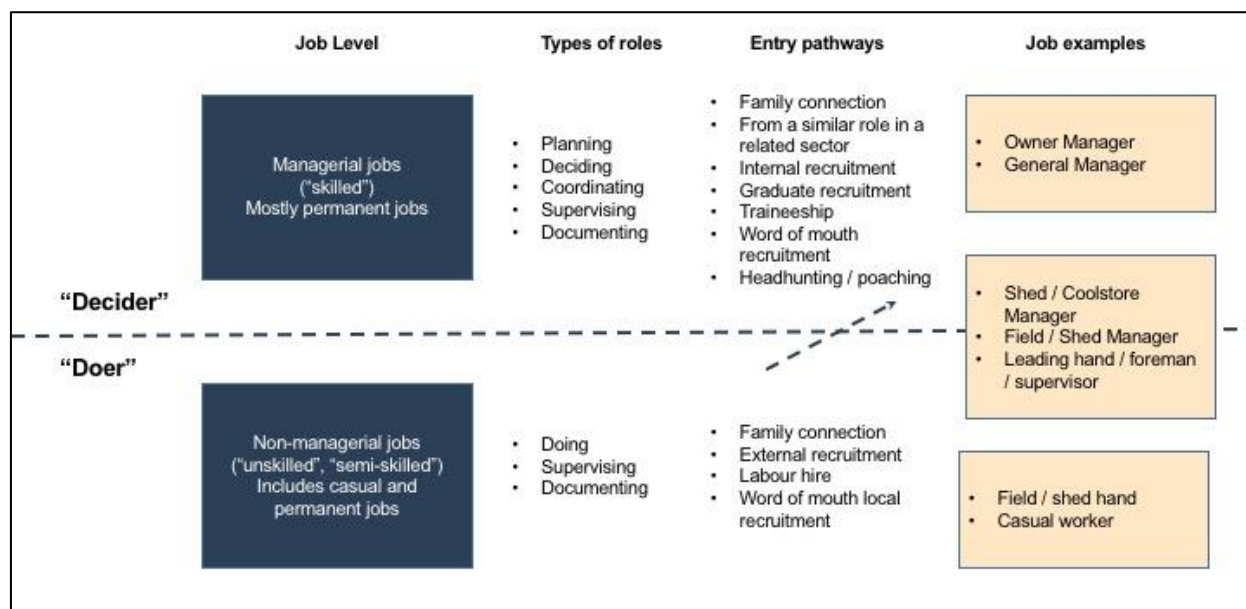


Figure 2-1: Classification of horticulture job level (Adapted from Santhanam-Martin and Cowan, 2017)

2.4.1 SKILLS NEED OF THE HORTICULTURE SECTOR

While the skills need of different horticultural production businesses will vary depending on crop type and scale of operations, the following discussion focuses on the vegetable and nursery industries. Many horticultural businesses in the Southeast Victoria (Gippsland) region, represent these two key industries. However, the skills discussed for participation in these industries would be applicable to other types of horticultural business, such as orchards or berry (e.g. strawberries, raspberries) farms.

¹⁵ RMCG, 2015, Vegetable Industry Education and Training Gap Analysis, report prepared by RMCG for Horticulture Innovation Australia, Project Number VG14061

¹⁶ RMCG, 2019, Nursery industry career path development strategy - Industry strategy and action plan report prepared by RMCG for Horticulture Innovation Australia

¹⁷ Santhanam-Martin M and Cowan L, 2017, *Understanding Skilled Workforce Issues in the Goulburn Valley Fruit Industry*, University of Melbourne and Agriculture Victoria

A comparative study of the Australian vegetable industry undertaken by RMCG (2015), identified gaps in skills as well as gaps in education and training offered to vegetable producers. It is important to note that the skills gap identified by industry, as outlined in Table 2-5, can be considered either a skills shortage or a shortage in the delivery of these skills.

Table 2-5: Identified vegetable industry skill shortages (RMCG, 2015)¹⁸

KNOWLEDGE AND SKILL AREA	SKILL GAPS
Technology	Information technology, machinery & equipment, precision horticulture, spatial technology, remote sensing, GPS/GIS, vision/sensing technology (e.g. for grading or in the field), robotics, irrigation technology, spray application technology, waste management, energy efficiency
Production environment	Climate/climate change, landscape / land capability / site selection, natural resource management / sustainability, water resources / quality, resource use efficiency, emission management, carbon farming, environmental sustainability, site selection
Field production and advanced crop management	Soil management, crop nutrition / fertilisers, plant health and crop protection, machinery & equipment, irrigation management, integrated crop management, agronomy, sustainable production, variety selection, on-farm research methods (farm trials)
Protected Production/Hydroponics	Structures/crop covers, hydroponics, greenhouse soil / substrate management, nutrition management / fertilisers, plant health and crop protection, climate and atmosphere control, machinery & equipment, irrigation management, integrated crop management
Postharvest management	Grading, cool chain management, post-harvest physiology, packaging, storage, temperature and atmosphere control, logistics, transport/shipping, distribution, food safety, waste management
Managing the business	Strategy, financial management, business planning/management, cost of production, record keeping, investment decisions, commercialisation, managing growth, compliance (legislative / regulatory), quality systems, managing risks
Products to markets	Understanding markets and consumers, marketing / promotion / selling, exporting, product development, supply chain management, product development
People	Leadership & management, conflict management / negotiation, WH&S / OH&S, managing staff, mentoring, people development, managing apprentices, labour management, communication
Information transfer	Adult learning, consulting, extension methodologies, facilitation, communication e.g. via public media, public speaking

For the nursery industry, RMCG have undertaken an assessment of common positions in the industry, along with consideration of the technical and interpersonal skills required, as presented in Table 2-6. Similar assessments have also been completed for the vegetable and fruit growing industries by RMCG.

¹⁸ RMCG, 2015, *Vegetable Industry Education and Training Gap Analysis*, report prepared by RMCG for Horticulture Innovation Australia

Table 2-6: Nursery industry positions and potential career pathways¹⁹

POSITION	TECHNICAL SKILLS	INTERPERSONAL SKILLS
Production Nursery Assistant	<ul style="list-style-type: none"> ▪ Application of chemicals under supervision ▪ Operation of large machinery ▪ Undertake various nursery propagation activities ▪ Plant identification. 	<ul style="list-style-type: none"> ▪ Communication skills ▪ Ability to work in a range of environments ▪ Punctuality ▪ Strong work ethic ▪ Ability to accept feedback ▪ Work effectively in a team environment ▪ Reliable.
Nursery Sales Assistant	<ul style="list-style-type: none"> ▪ Maintain health of nursery stock ▪ Plant identification ▪ Assist with sales tasks ▪ Manage finances. 	
Production Nursery Tradesperson	<ul style="list-style-type: none"> ▪ Conduct a range of tasks relating to safe storage and transportation, preparation, and application of chemicals ▪ Identify and control pests, weeds, and diseases ▪ Construct and maintain irrigation systems ▪ Understand a range of issues relating to plant health. 	<ul style="list-style-type: none"> ▪ Strong work ethic ▪ Critical thinking ▪ Experience dealing with a range of different personalities ▪ Team building ▪ Decision-making skills ▪ Interpersonal skills ▪ Enthusiastic.
Retail Nursery Tradesperson	<ul style="list-style-type: none"> ▪ Engage with customers on a daily basis ▪ Maintain health of nursery stock ▪ Have an in-depth knowledge of various plants and their growing conditions ▪ Identify and control pests, weeds, and diseases 	
Production Nursery Supervisor	<ul style="list-style-type: none"> ▪ Supervise nursery production teams ▪ Develop a range of soil and plant health monitoring plans. ▪ Supervise and monitor the performance of employees ▪ Effectively communicate and interact with employees and customers ▪ Implement and maintain workplace health and safety programs. 	<ul style="list-style-type: none"> ▪ Highly organised ▪ Strong work ethic ▪ Critical thinking ▪ Logical thinking ▪ Problem solving ▪ Resourceful ▪ Willing to learn ▪ Cooperative.
Retail Nursery Supervisor	<ul style="list-style-type: none"> ▪ Supervise nursery logistics ▪ Manage an effective work team ▪ Supervise and monitor the performance of employees ▪ Effectively communicate and interact with employees and customers. 	
Production Nursery Manager	<ul style="list-style-type: none"> ▪ Effectively coordinate and complete production tasks that will increase the productivity of the business ▪ Apply extensive knowledge of plant taxonomy to business operations ▪ Implement a range of plant, water and nutrient management plans ▪ Lead and manage a production team in an effective manner ▪ Management of machinery and equipment. 	<ul style="list-style-type: none"> ▪ Sufficient verbal and written communication skills ▪ Make deadlines ▪ Business etiquette ▪ Decision making ▪ Dispute resolution ▪ Conflict management ▪ Leadership

¹⁹ RMCG, 2019, Nursery industry career path – Desktop review prepared by RMCG for Horticulture Innovation Australia

POSITION	TECHNICAL SKILLS	INTERPERSONAL SKILLS
Garden Centre Manager	<ul style="list-style-type: none"> Manage finances and nursery logistics in a safe and profitable manner to increase the profitability and sustainability of the business Understand the fundamentals of business management Apply extensive knowledge of plant taxonomy to business operations Manage employees in an effective manner Monitor and manage store facilities. 	<ul style="list-style-type: none"> Ability to deal with difficult managerial situations.
Horticulture Business Manager	<ul style="list-style-type: none"> Analyse and develop business management plans Manage human resources Analyse and manage a range of tasks relating to business performance Implement planning and budget monitoring programs to effectively sell stock. 	<ul style="list-style-type: none"> Logical thinking.

3 CaLD skills gaps and opportunities

There is limited published information regarding existing skills and knowledge of CaLD people that may be relevant to the agriculture sector, as well as the specific skill gaps that may need to be addressed to support their participation in the sector. This is potentially due to the great variation in skills within these communities. However, the following discussion draws on RMCG's recent project and final report for Agriculture Victoria, particularly interviews with support services to CaLD communities.

English language

Widely quoted as one of the biggest skills gaps for CaLD workers from countries where English is not widely spoken or taught, spoken or written English language is a recognised gap that hinders CaLD workers from gaining entry level jobs, rising up in their careers and limiting the opportunity to communicate what actual skills they can offer to workplaces. Other gaps around English language include knowledge of workplace jargon, Australian slang and workplace specific English (Tafe Gippsland interview, 2020).

Tafe Gippsland noted that they see lots of doctors, lawyers, people with PhDs and engineers coming through their Australian Migrant English Program (AMEP) courses. It was commented that although people have the skills and qualifications they need a foot in the door and confidence with English to succeed. It was noted that although some CaLD go into higher education to increase their skills at work, language remains a barrier.

Literacy and numeracy skills

Many CaLD from farming backgrounds have strong farm management skills however may lack basic literacy and numeracy skills which limits their ability to communicate their true skills.

Tafe Gippsland explained that a lot of their students combine working in the Dairy Industry with their Certificate III in Agriculture. The core units of this course, and a requirement to work in the industry, involves the Farm Chemical Users certificate. This requires reading and interpreting labels which is difficult with lower levels of literacy and numeracy skills.

Entrepreneurial skills

Entrepreneurial skills drive employment growth and productivity and so are of great value to agriculture. Skilled immigrants in the agricultural sector were found to be much more likely to have set up their own business (15%) than those in other industries (9.6%)²⁰.

The CGU Migrant Business report found that migrant business owners are *entrepreneurial, innovative and ambitious*.²¹

- Eight in 10 (83%) migrant business owners started their first business venture after moving to Australia
- Nearly one quarter of migrant business owners started their business to try out an innovative or new idea (23% compared to 16% of non-migrants)
- One in two migrant business owners are aiming to generate higher revenue in the next five years (47% compared to 38% of non-migrants)
- A quarter of migrant business owners are training young people in the community (25% compared to 19% of non-migrants)
- One in three migrant business owners are planning on growing their business with new hires (33% compared to 25% of non-migrants).

This was backed up by the *Seven steps to Success: Enabling refugee entrepreneurs to flourish, Report by CPD and Open Political Economy Network (OPEN)*²² who found that refugees were the most entrepreneurial migrants in Australia being nearly twice as likely to be entrepreneurs as Australian taxpayers as whole. They found that:

- Migrants not only fill jobs but create them
- Migrants are more likely to be business owners **in regions than in metro areas**
- Migrant business owners that employ others are **more likely to be found in regional areas**
- Migrant businesses are highly diverse and go well beyond the hospitality industry
- Migrants share a desire to 'give back' to communities that embrace and support them
- It is important to not only attract migrants to regions but retain them as the longer a migrant lives here, the more likely it is that they establish a business and employ others.

The Shepparton Ethnic Communities Council gave an example of this entrepreneurship and innovation with an Indian Sikh group who run farms around Shepparton and have successfully adapted the kind of produce they grow to suit the changing climate²³.

The Southwest Community Services noted that those arriving on skilled visas in the area spoke about setting up their own businesses within 1-2 years of arriving in Australia.

Innovation and skills specific to Dairy and Horticulture

As with most diversity in workplaces, different ideas and ways of working can be an asset in the ever changing environment and economy. CaLD workers bring with them skills and experiences that, if allowed to grow, can make organisations in agriculture more productive and resilient as seen in the examples in the quote below.

“Immigrant farmers fill the growing intergenerational gap in farm succession and bring with them new technologies and innovations to Australian farming. Zimbabwean immigrant Nicky Mann and

²⁰ <https://theconversation.com/how-migrant-workers-are-critical-to-the-future-of-australias-agricultural-industry-66422>

²¹ CGU Migrant Small Business report – quoted on Settlement Council of Australia website <https://scoa.org.au/wp-content/uploads/2017/03/SCoA-Regional-Settlement-Policy-Paper.pdf>

²² Seven steps to Success: Enabling refugee entrepreneurs to flourish, Report by CPD and Open Political Economy Network (OPEN) April 2019

²³ Interview with Shepparton Ethnic Communities Council by RMCG, 2020

her husband introduced hydroponic rose-growing at their NSW central coast operation. Vietnamese and Chinese market gardeners have introduced many new vegetables to expand Australians' food horizons." The Conversation, 2016²⁴

Although there is great diversity in the skills, qualifications and experiences of people from CaLD backgrounds, a report by Rural Industries Research and Development Corporation²⁵ found the following tendencies in participation in particular farming industries where almost one third or more of the farmers from a particular group tend to enter the same industry.

Farmers born in:

- North and Western Europe tend to be involved in sheep, beef, cattle and grain farming (34%)
- South and Eastern Europe tend to be involved in fruit growing (30%)
- North Africa and the Middle East tend to be involved in vegetable growing (31%)
- Asia tends to be involved in vegetable and fruit growing (more than 40%)
- Sub-Saharan Africa tend to be involved in sheep, beef, cattle and grain farming (30%).

Previous research and engagement conducted by RMCG heard that specific CaLD groups such as farmers from the Philippines, the Middle East and Argentina were proficient in animal management skills and veterinary skills - both highly valued in the dairy industry.²⁶ An interview with Wise Well Women also noted that other communities newer to the Shepparton area have come from farming backgrounds including South Sudanese, Iraqi, Irani, Congolese and Syrian people.

According to the Designated Area Migration Agreement (DAMA) Coordinator in the Southwest, Filipino vets are strong targets for dairy farmers however their qualifications are not recognised here so they end up doing lower level jobs such as farm hands.

Critical gaps here for both potential CaLD employees and employers in the agriculture sector are:

- a) Time, energy and resources required to have overseas qualifications and experience recognised
- b) Creativity and open mindedness of employers to recognise that skills from other sectors can be translated into dairy or horticulture. Employers in the pork industry have found ongoing success and increased productivity in employing Filipino vets and animal managers. However, the above gap remains, leading to an ongoing issue with skills and lack of career pathways for those wishing to have their qualifications and experience recognised.²⁷

Australian workplace culture and context

Another gap cited by interviewees from the previous RMCG report²⁸ was understanding and knowing how to work in the Australian workplace. As one interviewee from that project stated, after organising for CaLD workers to be tested by industry for their level of skill:

²⁴ <https://theconversation.com/how-migrant-workers-are-critical-to-the-future-of-australias-agricultural-industry-66422>

²⁵ New Immigrants Improving Productivity in Australian Agriculture, Rural Industries Research and Development Corporation, 2016

²⁶ RMCG, 2020, *Workforce Strategy for the Pork Industry*, and RMCG, 2020 *and Identifying opportunities and challenges for Culturally and Linguistically Diverse (CALD) communities to address workforce gaps in Victoria's agriculture sector* – Final report for Agriculture Victoria (Department of Jobs, Precincts and Regions)

²⁷ RMCG focus group with Queensland and South Australia pork producers (on behalf of Australian Pork Limited), 2020

²⁸ RMCG, 2020, *Identifying opportunities and challenges for Culturally and Linguistically Diverse (CALD) communities to address workforce gaps in Victoria's agriculture sector* – Final report for Agriculture Victoria (Department of Jobs, Precincts and Regions)

“Better to have another way of recognising their skills. ...Often they found that they (their skills) were ok however needed to learn the “Australian way”. Skill sets were there but need some sort of bridging in the local context and way of doing things”²⁹.

AMES Australia, who work closely with many CaLD groups, had the following comments:

“We have lots of people who could run a farm in logistics, operations and successful business management – they have experience in other industries such as oil, gas, manufacturing, transport, export expertise. This is translatable to agriculture with mentoring and local experience. For example, we worked with a man who had experience as a trade envoy to China from Iran – he could add a lot of expertise if he could be trained in understanding the local context.”

Leadership and management skills

As seen in the AMES Australia quote above, CaLD people often arrive in Australia bringing strong leadership and management skills with them although these may be from a sector other than agriculture. Managing and leading people in an Australian setting would need to be taught or incorporated into on the job training.

In developing the pork industry workforce strategy, RMCG heard from the pork industry producers that Filipino workers *“bring a good work ethic to the companies and are essential to continuation of the business”* however were reluctant to take on anything higher than supervisor positions.³⁰ It was suggested that tailored leadership development courses for supervisors would help to fill this gap for the CaLD workers and industry.

²⁹ Interview with Dean Wickham, CEO Sunraysia Mallee Ethnic Communities Council, RMCG 2020

³⁰ RMCG focus group with Queensland and South Australia pork producers (on behalf of Australian Pork Limited), 2020

4 Summary of skills gaps and opportunities for CaLD people in the target regions / industries

A summary of the skill needs for agriculture, in particular the dairy and horticulture sectors, is presented in Table 4-1 and how such needs align with the potential skills CaLD people may have. Consideration to the opportunity for participating in the workforce is also included.

Table 4-1: Alignment of skill needs of agriculture sector and potential skills of CaLD people

SKILL CATEGORY	SKILLS – FARM ENTRY LEVEL	SKILLS – SUPERVISOR/ TECHNICAL LEVEL	SKILLS – MANAGERIAL LEVEL	CALD SKILLS AND GAPS AND OPPORTUNITIES
General – technical	<ul style="list-style-type: none"> Following WHS procedures Working with chemicals Driving skills – quad bikes, tractors Working with / operating machinery Record keeping Fencing – install, maintain and repair Observing and reporting on weather Respond to emergencies. 	<ul style="list-style-type: none"> Work plan development Record keeping Implement and monitor quality assurance procedures Maintain health and safety processes Manage water / irrigation systems Diagnose plant health problems Develop soil health and plant nutrition program Management of technology. 	<ul style="list-style-type: none"> Develop and review business plan Plan and managing infrastructure requirements Develop Whole Farm Plan Manage finances – investment decisions, commercialisation Manage human resources – labour management Design Quality Management Systems Compliance management Contact management. 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Previous agriculture experience Business management skills Leadership in own community Innovation. <p><u>Gaps</u></p> <ul style="list-style-type: none"> English language skills, especially for reading of technical information (e.g. chemical labels) Numeracy and literacy skills Ability to convert or lack of recognition for existing licences and qualifications Limited resources (time, finances) to update / translate relevant skills.
General - interpersonal	<ul style="list-style-type: none"> Communication – active listening Working with others / in a team effectively Reliability Adaptability to work in range of environments Strong work ethic to completing tasks Accepting feedback. 	<ul style="list-style-type: none"> Supervising work routines and performance Team building – resolving conflicts Decision making Time management and prioritisation Critical thinking – problem solving, seeking relevant information Mental flexibility. 	<ul style="list-style-type: none"> Self-leadership – goals achievement, self-confidence, entrepreneurship, courage Mobilising systems – role modelling, negotiations, providing vision Developing relationships – industry connections / leadership Teamwork effectiveness – motivating, coaching, empowering, supporting inclusiveness, resolving issues 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> Strong work ethic Adaptability Resourcefulness Ability and willingness to learn Leadership and management skills Entrepreneurial skills. <p><u>Gaps</u></p> <ul style="list-style-type: none"> Understanding workplace culture and context

SKILL CATEGORY	SKILLS – FARM ENTRY LEVEL	SKILLS – SUPERVISOR/ TECHINICAL LEVEL	SKILLS – MANAGERIAL LEVEL	CALD SKILLS AND GAPS AND OPPORTUNITIES
			<ul style="list-style-type: none"> ▪ Critical thinking – problem solving, logical reasoning, seeking relevant information ▪ Communication – asking right questions, active listening, public speaking ▪ Mental flexibility. 	<ul style="list-style-type: none"> ▪ Networks to relevant opportunities ▪ Confidence ▪ Poor past employment experience.
Dairy specific	<ul style="list-style-type: none"> ▪ Handling livestock ▪ Care for health and welfare of livestock ▪ Carry out calving duties ▪ Provide feed for livestock ▪ Maintain water supply for livestock ▪ Milking duties ▪ Assist with artificial insemination. 	<ul style="list-style-type: none"> ▪ Manage implementation of milking shed routines ▪ Develop livestock health and welfare strategies ▪ Manage pastures / supplement feed for livestock production. 	<ul style="list-style-type: none"> ▪ Manage livestock production ▪ Develop and implement a breeding strategy. 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Strong affinity and experience in working with animals (depending on CaLD background). <p><u>Gaps</u></p> <ul style="list-style-type: none"> ▪ Transportation/ access to dairy farms.
Horticulture specific	<ul style="list-style-type: none"> ▪ Plant identification ▪ Harvesting duties ▪ Post harvest duties – grading, packing. 	<ul style="list-style-type: none"> ▪ Design / implement Integrated Pest Management program ▪ Manage field trials ▪ Labour management for harvest ▪ Oversee post harvest activities – grading, cool storage, logistics. 	<ul style="list-style-type: none"> ▪ Production system decisions – protected production, greenhouse soil substrate management variety selection ▪ Design / implement Integrated Pest Management program ▪ Postharvest management ▪ Supply chain management ▪ Marketing/ promotion/ selling ▪ Export development / management. 	<p><u>Opportunities</u></p> <ul style="list-style-type: none"> ▪ Past experience in horticulture ▪ Opportunity for part time / seasonal employment ▪ Potential opportunities through supply chain (e.g. production, harvest, packing, logistics). <p><u>Gaps</u></p> <ul style="list-style-type: none"> ▪ Poor past employment experience (or awareness of) ▪ Transportation / access.

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2.0	Final	22/11/2021	D. Prentice E. Tee	D. Blaesing	B. Gravenor	D. Blaesing	D. Delpitiya (DPRJ)

Appendix C: Working group workshops

Table AC-1: Details of workshop sessions with regional working groups

WORKSHOP	DETAILS	ATTENDEES / ORGANISATIONS
1. Gippsland Agricultural Skills for CaLD Working Group (Horticulture)	Monday 21 st February 2022, 1pm	<ul style="list-style-type: none"> ▪ Abiola Ajetombi – Asylum Seeker Resource Centre ▪ Farhat Firdous – Latrobe Community Health Centre ▪ Tova Wilshansky – Food and Fibre Gippsland ▪ Liante (Van Bawi Lian Sunthang) and Huai Sukte – Migrant Information Centre ▪ Louise Underhill – Tafe Gippsland ▪ Peter Flugge – Brotherhood of St Laurence ▪ Scott Botten – Agriculture Victoria (ex-Mulgowie Farms)
2. Northern Victoria Agricultural Skills for CaLD Working Group (Dairy)	Tuesday 22 nd February 2022, 10am	<ul style="list-style-type: none"> ▪ Darren Payne – GoTafe ▪ Melva Tyson – Murray Dairy ▪ Peter Harrison – AMES Australia ▪ Kirsten Clark – Dairy Business ▪ Ruth Kydd – Dairy Business ▪ Rose Phillipzen – Moxey's Farms ▪ Greg Jarman – Dairy Australia
3. Western Victoria Agricultural Skills for CaLD Working Group (Dairy)	Thursday 24 th February 2022, 1pm	<ul style="list-style-type: none"> ▪ Peter Harrison – AMES Australia ▪ Lindsay Ferguson and Matthew Wood – West Vic Dairy ▪ Simone Reynard – Dairy Business ▪ Will Henderson, Ryan Guareschi and Travis Benham – Qualify (RTO) ▪ John Flett and Paul Meredith – South West Tafe ▪ Bill Hamill – RIST (Rural Industries Skills Training)

Appendix D: Interviews with CaLD employees

Table AD-1: Interview preparation and guide

INTERVIEW GUIDE
<p>Purpose</p> <p>The purpose of the interviews is to develop up to five learning action plans around up to five individuals. These learning actions plans will highlight the individual's journey from prior to working in agriculture in Australia through to their future aspirations. It will be a semi-structured interview based on the following questions:</p>
<p>Criteria for selecting interviewees</p> <ul style="list-style-type: none"> ▪ CaLD person already working in dairy or horticulture sector ▪ Supportive employer
<p>Questions</p> <ul style="list-style-type: none"> ▪ What is their current role? ▪ What aspirations do they have? To stay in the sector or move elsewhere? To progress their careers? ▪ What skills they had prior to working in agriculture and what they needed to acquire after starting? ▪ What skills they bring to their jobs? ▪ What specific barriers the employees faced or might be facing in developing their careers? ▪ What courses or formal learning have they undertaken, how they found that and whether it was useful? ▪ What courses or formal learning would be required to take the next step in their careers? ▪ What informal – either on the job or external learning had they experienced and how useful it was to them? ▪ What informal learning would be required or would they like to receive in order to develop their careers? ▪ What support are they seeking, either from employers, education providers or other support services they would require, to succeed?

Table AD-2: Details of interviewees

CONTACT	BACKGROUND	REGION
Jay-ar Justiniano	<ul style="list-style-type: none"> ▪ Filipino 	Finley (NSW) – Northern Vic
Pedro Araujo DaSilva	<ul style="list-style-type: none"> ▪ Brazilian 	Finley (NSW) – Northern Vic
Joel Bilanes	<ul style="list-style-type: none"> ▪ Filipino 	Scotts Creek – South West Vic
Tony Kim	<ul style="list-style-type: none"> ▪ Korean 	Finley (NSW) – Northern Vic
Oonagh Kilpatrick	<ul style="list-style-type: none"> ▪ Manages two dairy farms with husband ▪ Originally from Ireland and has established connections with Irish agricultural colleges for prospective employees / student exchanges ▪ Key role in employment / human resource management for business 	Koroit – South West Vic

Appendix E: Learning Action Plans

Table AE-1: Learning Action Plan Framework provided by Agriculture Victoria project manager

The whole interview process with the employer and job seeker or employee												
The part of the interview that is relevant in developing the learning action plan								The part of the interview that is relevant for the Gap analysis				
Individual	Employer				Individual			Working Group				
Skills that I currently have	Skills that I need to have	Objective	Steps needed to achieve my objective	who can deliver the training	Resources needed to help me achieve my objective	Timeline to achieve my objective	Outcome or indication of success of my objective	what is preventing me from taking that training	why	what is the solution	Who is the provider	what does the provider have to say / any gaps
	at Farm entry level	Develop basic English language skills English language skills at a level to understand instructions and report issues with the supervisor, communicate with team members, read and understand flow charts, treatment info and notices.	Enroll in an English language course locally	Adult migrant english language course by AMES	will be provided free of charge by the provider	within 6 months of starting employment	certificate	I am reluctant to take part now and am willing to do the course once I am in the job	I cant afford to pay for travel , don't have a car, need help finding a provider	a local provider can help case manage and fund the learning. Discuss with provider if training can be place based to avoid travel requirement	AMES	the course can only be delivered in class room settings and the closest class is in Morwell. The student can attend group sessions and can explore if some sessions can be delivered virtually but not all , the learning is better with peer learning.
		Ability to ride a 4 wheel bike	need to do a 4 wheel bike safety course	TAFE				Employer wont pay for my training	I cant afford to pay for my training as I have other commitments as I am unemployed	TAFE can fund and do the training.		
	to become a Supervisor	ability to use and apply agricultural chemicals to paddocks and pastures ability to treat cows under direction	do a ChemCerts course	TAFE Gippsland	will be provided by provider and once qualified can practice at work	before becoming a supervisor	certificate	I havent thought about it yet/ motivation factor	I thought I cant apply for position/ didn't know I could	Discuss with employer, if agreed, source local provider and funder - local CalD provider to case manage this part	Gippsland employment and skills training	the individual is not registered with us and is in metro melbourne now, need registration with us GEST for us to fund, but can be done.
I am good at data entry with accuracy, can learn new systems quite easily		Yes this is a skill we need on the farm. We only need to onboard with the computer system we are using on farm	get training by Easy Dairy company on their system	Easy Dairy Company	employer has all the folders on farm	can undertake task after completing the training	course completion only no certificate	I have discussed with my boss and waiting to start	busy with work, so havent got to it yet	again, this is an internal discussion and don't need intervention	employer have identified trainer to suit business need	yes, the employer have all the training folders on farm, we will plan to visit farm on a day that suits both and do a one day training and there after can liaise virtually and guide, clarify, problem solve
	Manager	Ability to artificially inseminate cows	need to undertake a AI course	TAFE	will be provided by provider and once qualified can practice at work	before becoming a Manager	certificate	I don't know how much it costs for the course, thought it costs a lot for such a course	havent asked that question before	it's a discussion between employer, employee and provider. Need someone to help facilitate that (in this case only)	need help from WG to find provider	yes , can register for next course
		Ability to preg test cows	need to undertake a preg test course		same	before becoming a Manager	certificate	same				
I have worked with horses before and can treat horses		ability to treat cows and direct staff to treat, make decisions on treatments	need to do multiple courses	Dairy Australia	same	before becoming a Manager	certificate	I havent thought about it yet/ motivation factor				
I have skills in managing people, following HR protocols and record keeping		This is a good skill to have, I don't have the time to do all that stuff on the farm now and need help with, then I can spend more time on other technical things on farm. But need to assess capacity for atleast 2 years on farm.	open to decide at a later stage when applicant is more acclimatised to farm									

Table AE-2: LAP for CaLD employee (Jay-ar – Finley, NSW)

SKILL LEVEL REQUIREMENRS - FARM ENTRY	Qualifications & previous experience Personal attributes	Training courses completed (in Aust)	Skills developed on the job	Career aspiration	Factors influencing likelihood to stay in dairy / agriculture	Comments / observations
General - technical				Would like to stay in the dairy sector - enjoys being outside & having more 'space' & there is less strict biosecurity protocols compared to working in pig or poultry industry	Personal attributes - loves working with animals; loves being outside - has a drive to want to keep learning ("I want to learn everything") - own initiative to develop skills on the job etc	Currently works 6 days per week (6am - 6pm) & works the extra day for overtime. Would like to be paid current equivalent but have 2 days off
(English communication skills required)	Assume sound English skills for workplace given previous exp. in US					
Following WHS procedures			Treating mastitis	Goal is to have a share farm (300 - 400 cow heard)		
Working with chemicals				Opportunity for further learning - Would like to do training in irrigation; employer said they would provide on-job opportunities to learn - Jay-ar took initiative to identify training courses for AI & pregnancy testing; paid for course himself; skills not really needed in current role - however has been able to 'step in' to do prenanacy testing when usual contractor/vet was unable to provide service		
Record keeping						
(Practical)						
Fencing – install, maintain and repair	No previous experience with fencing		Y			
Driving skills – quad bikes, tractors		DA course - quadbike handling	Y (tractor driving)			
Working with / operating machinery	Previous exp. working in US dairy (milking sheds)					
Observing and reporting on weather						
Respond to emergencies						
General - personal						
Communication – active listening						
Working with others / in a team effectively						
Reliability						
Adaptability to work in range of environments	Worked in other countries & other animal industries					
Strong work ethic to completing tasks	Strong drive to learn					
Accepting feedback						
Specific Dairy skills						
Handling livestock	Past experience & training:					
Care for health and welfare of livestock	- Animal Science course (Philippines) - animal husbandry skills	DA course - mastitis	Y (Identify & treat mastitis)			
Carry out calving duties	- Previously managed poultry farms in Phillipines		Pregnacy testing			
Provide feed for livestock		DA course - silage				
Maintain water supply for livestock	- One year working (including training) in dairy industry in US (Nth Dakota) - mainly feeding & milking					
Milking duties		DA course - cups on/cups off				
Assist with artificial insemination		AI & pregnancy testing course with private provider (\$2000 / 4 days)	Y			
SKILL LEVEL REQUIREMENRS - Supervisor						
The following skills have been identified at supervisor or above level: - manage milking shed routines (assume this is part of current role) - would like to complete training or on job experience in managing irrigation systems						

Table AE-3: LAP for CaLD employee (Pedro – Finley, NSW)

SKILL LEVEL REQUIREMENTS - FARM ENTRY	Qualifications / previous experience Attributes	Training courses completed (in Aust)	Skills developed on the job	Career aspiration	Factors influencing likelihood to stay in dairy / ag	Comments / observations
General - technical				He is uncertain about next steps in career. He is unsure as to why he left NZ corporate dairy to come back to Australia to work on family owned dairy Considering looking at different opportunities & challenges - doesn't want to be in same role forever When first graduated in Brazil thought he would work with crops & be agronomist Would like to do more AI technician work, since having AI training; not sure how to get into this area	Personal attributes - Initiative to invest in own training & develop skills on the job Visas - Spent 1 year in US dairy sector; this was good experience but immigration is expensive & difficult in the US - Came to Aust on a traineeship / exchange visa in 2015 - was a 1 year visa but wasn't able to stay longer because didn't meet visa requirements in needed more work experience - Left to work in NZ on large corporate dairy farm for 3 years; came back after previous Aust employer contacted him & asked if he'd come back to work Family / community - Has no family here - Recently returned from Brazil visiting family; has last seen them before COVID (2019) - it was sad leaving them but its a long way to go given cost of flights & travel time Understanding Aust context (prior connections) - Previous time working in Aust. helped with expectations Awareness of 'pathways' - observed friends, made since arriving in Aust, who have moved farms & got role as a manager Support from employers - Having accommodation provided makes a significant difference esp. for early milking - Value of having a paid salary	Believes in investing in own training - "can't wait around for someone else to offer you a favour [training]....if want to learn, develop new skill then just have to go find it & pay for training yourself....if means you have this extra skill that can help with getting a better role / pay"
(English communication skills required)	Assume sound English skills for workplace given previous exp. in US					
Following WHS procedures						
Working with chemicals			Treating sick cows			
Record keeping						
(Practical)						
Fencing – install, maintain and repair						
Driving skills – quad bikes, tractors	previous exp. working in US dairy - milking sheds, driving tractors		Y (tractor driving)	Opportunity for further learning - May look to at further studies, as a refresher e.g. Masters - to develop more skills & knowledge in agronomy - Has completed AI & pregnancy testing training		
Working with / operating machinery						
Observing and reporting on weather						
Respond to emergencies						
General - personal						
Communication – active listening						
Working with others / in a team effectively	Worked in corporate NZ dairy - 2IC role & was responsible for managing people					
Reliability	Was willing to come back to Aust on request of previous employer					
Adaptability to work in range of environments	Worked in other countries					
Strong work ethic to completing tasks	Strong drive to learn					
Accepting feedback						
Specific Dairy skills						
Handling livestock	Existing skills / training: - Ag. sci course (Brazil)					
Care for health and welfare of livestock	- Then spent 1 year in US dairy sector - milking cows, driving tractors		Y (id & treat mastitis)			
Carry out calving duties	- Came to Aust on traineeship / exchange visa (2015) & worked on Kydd dairy farm	DA course - pasture feeding	Pregnancy testing			
Provide feed for livestock						
Maintain water supply for livestock		DA course - cups on/cups off				
Milking duties	- Worked for large corporate dairy in NZ	AI & pregnancy testing course (paid for himself)	Y			
Assist with artificial insemination						
SKILL LEVEL REQUIREMENTS - Supervisor / Manager						
Has previously worked as a 2IC on a NZ corporate dairy so has skills in managing people & day to day operations						

Table AE-4: LAP for CaLD employee (Tony – Finley, NSW)

SKILL LEVEL REQUIREMENTS - FARM ENTRY	Qualifications & previous experience Personal attributes	Training courses completed (in Aust)	Skills developed on the job	Career aspiration	Factors influencing likelihood to stay in dairy / ag	Comments / observations
General - technical				Stay in dairy. He is very thankful to his employers who have been very supportive to him and as long as his back is ok he plans on staying in his present job. He feels he is too old to start a new career and feels if he had come to Australia earlier he would have had more of a chance to learn other skills.	Personal attributes - very thankful of opportunity and support of employer - he feels very lucky - likes farming as it was such a fresh experience after working in IT - determination and persistence to get a full time job (as evidenced by striving through all the visa and study pathways into Australia)	Tony works at a large dairy farm (approx 1200 milking cows) which is growing all the time. He does all farm jobs eg. milking, collecting the cows, spreading fertiliser, feeding silage, fenceing, tractor work when his back allows. He has a back injury so needs to do a variety of tasks to not aggravate it. His employer has made accommodations for this.
(English communication skills required)	Very good English skills although very shy	TAFE course helped his written English	Developed stronger English skills through engaging with Ruth and her family. He had many dinners there and he felt he improved not only his English but also his knowledge of Australian culture.		Visas - Started on working holiday visa and worked on diary farm - returned to South Korea and worked as a chef - Remembered dairy farm and working for Ruth's family to be a good experience so moved back to Australia. Applied for 457 visa but was not successful due to lack of experience so returned again to South Korea. - after 1-2 years came back on a student visa and studied a Cert IV and Diploma of Agriculture at Wagga Wagga TAFE for 3 years. - then after another 3 years applied and received permanent residency - a long and expensive journey.	
Following WHS procedures		WHS training		Opportunity for further learning Tony was offered many other courses however as he was studying the TAFE course it was hard for him to find time to do the Dairy specific courses as well. He noted that most of his dairy knowledge and skills were learnt on the job. From his experience he thinks it would be good for backpackers or others wishing to work on a farm to have basic skills such as "Cups on cups off", mastitis knowledge before coming onto the farm. The whole farm is busy so there is often no time to train new people. For people from Europe, English is not such an issue however for people from Asian countries you would need to include a way to help their English improve. they may be scared to speak English and the type of English spoken in each industry is different. He found the TAFE system very hard to navigate and the homework was a lot so help with that would be useful too.		
Working with chemicals		Chemical user course				
Record keeping (Practical)						
Fencing – install, maintain and repair						
Driving skills – quad bikes, tractors		Quad bike driving, tractor driving				
Working with / operating machinery						
Observing and reporting on weather						
Agronomy experience and skills		Cert IV and Diploma of Agriculture - Wagga Wagga TAFE			Family / community - His sister studied nursing at Melbourne University and encouraged him to return the second time to Australia. She returned to South Korea and tried to come back to Australia but then Covid-19 prevented her from doing that. He sometimes goes to the city to visit other South Koreans however is generally content being alone. he feels free in Australia and enjoys the peace and quiet of the country.	
Science and agricultural knowledge					Understanding Aust context (prior connections) - his sister's experience and encouragement	
Respond to emergencies					Awareness of 'pathways' - appeared to be all through his employer	
Other skills -digital literacy	Majored in IT and worked in IT for the Korean equivalent of Telstra				Support from employers - relies on his employers to suggest training / skill development - on the job training - Assistance with applying for and completing his TAFE course. Tony comments that he could not have got through the course without help from his employer - going through the application process, writing essays etc. There was another South Korean student there at the same time and he found it too difficult so did not finish the course.	
General - personal						
Communication – active listening						
Working with others / in a team effectively						
Reliability, respect for employers	Y					
Adaptability to work in range of environments	Works in different jobs across the farm					
Strong work ethic to completing tasks	strong work ethic					
Accepting feedback, ability to learn on the job,	Y					
Passion for farming	wants to continue to farm					
Specific Dairy skills						
Handling livestock		Y	Y			
Care for health and welfare of livestock		Mastitis course and Euthenasia course	Detection of mastitis and care of animals			
Carry out calving duties		Y	Y			
Provide feed for livestock			Y			
Maintain water supply for livestock		Y	Y			
Milking duties		Cups on cups off training	Y			
Assist with artificial insemination		Mostly done by contractor from Holland				
SKILL LEVEL REQUIREMENTS - Supervisor, Manager or other						
Tony has digital literacy skills that could be valuable to a changing dairy / agriculture sector						

Appendix F: Program Logic

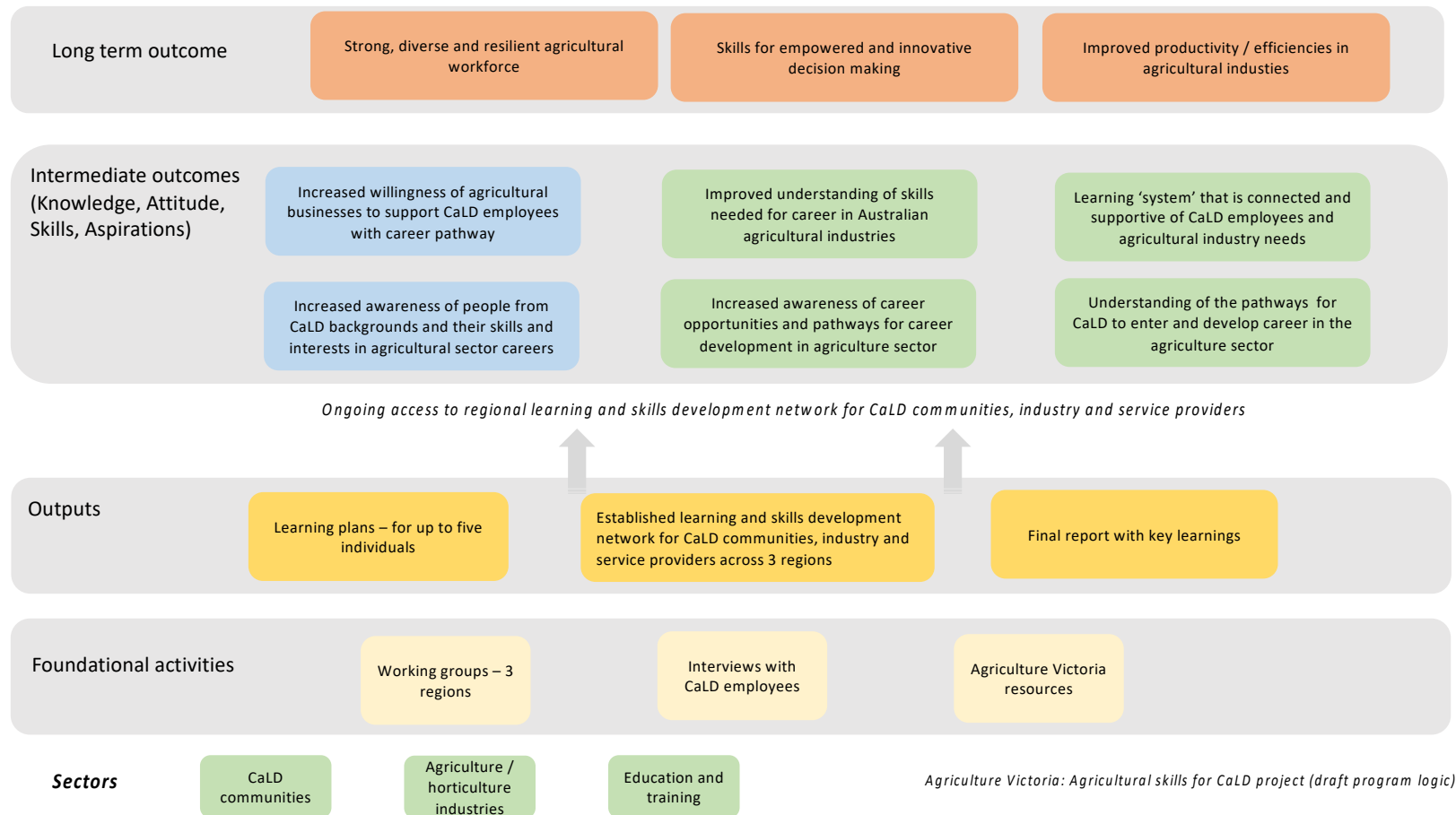


Figure AF-1: Program Logic

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