



# **Companion Volume Implementation Guide**

## **Release 12**

### **Part 1: Overview and Implementation**

**AHC Agriculture, Horticulture and  
Conservation and Land Management**

**Training Package**

**Version 8.0**

**April 2022**

## Disclaimer

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## Implementation Guide modification history

Release number	Release date	Author	Comments
12	April 2022	Skills Impact	Content updates to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V8.0</i> .
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5	October 2019	Skills Impact	Content updates to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V4.0</i> .
4	December 2018	Skills Impact	Content updates to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0</i> .
3	December 2017	Skills Impact	Content updates to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V2.0</i> .
2	September 2016	Skills Impact	Content updates to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V1.1</i> . Mapping and typographical errors corrected.
1	June 2016	Skills Impact	Implementation Guide created to accompany release of <i>AHC Agriculture, Horticulture and Conservation and Land Management Training Package V1.0</i> .

# Introduction

## About this Guide

This Companion Volume Implementation Guide (Implementation Guide) is designed to assist assessors, trainers, Registered Training Organisations (RTOs) and enterprises to use the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package*.

## Structure of this Guide

This Implementation Guide for the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* consists of two parts. Each part can be downloaded from VETNet at: <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

This document is **Part 1** and it contains two sections.

### 1. Overview

This section includes information about:

- what training packages are, and how they are developed
- the qualifications, skill sets and units of competency (including imported and prerequisite units of competency) in the training package
- mapping between previous and current versions of the qualifications and units of competency
- key work, training and regulatory/licensing requirements in the industry.

### 2. Implementation

This section explains some of the key features of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* and the industry that will impact on the use of the Training Package. It includes information about:

- training pathways
- occupational outcomes of qualifications
- entry requirements for qualifications
- legislative requirements
- resources and equipment requirements.

### Note about Part 2

Please refer to the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Implementation Guide Release 12 Part 2: Component Details* file for:

- lists of qualifications, skill sets and units of competency in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package V8.0*
- units of competency from the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package 8.0* with prerequisite requirements
- units of competency imported from other training packages included in qualifications in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package V8.0*
- mapping information, providing a summary of the key changes between current and previous versions of the training package components (qualifications, skill sets and units of competency).

## Overview

### About training packages

Training packages specify the skills and knowledge (known as competencies) that individuals need in order to perform effectively in workplaces. Training packages:

- reflect identified workplace outcomes
- support national (and international) portability of skills and competencies
- reflect the core, job-specific and transferable skills, required for job roles
- enable the awarding of nationally recognised qualifications
- facilitate recognition of peoples' skills and knowledge, and support movement between school, VET and higher education sectors
- promote flexible modes of training to suit individual and industry requirements.

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**Note:** To make them easy to interpret, training packages are written in simple, concise language, with delivery and assessment requirements clearly described. Training package products do not prescribe how an individual should be trained so that users can develop training and assessment strategies to suit the needs of their particular learners.

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### Training package products

Training packages consist of endorsed and non-endorsed components<sup>1</sup>.

Although all components must be developed to comply with the *Standards for Training Packages 2012*<sup>2</sup>, endorsed components must be submitted for approval by the Australian Industry and Skills Committee before they are released for use.

A summary of endorsed and non-endorsed components is provided on the following page.

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<sup>1</sup> Note that the words 'components' and 'products' are used in currently applicable legislation standards and policies. Both words are generally used to refer to the qualifications, skill sets, units of competency, assessment requirements, credit arrangements and supporting materials produced for training packages.

<sup>2</sup> The *Standards for Training Packages 2012*, and accompanying policies, are available from the Australian Department of Education, Skills and Employment website <<https://www.dese.gov.au/skills-information-training-providers/resources/standards-training-packages-2012>>.

## Endorsed components

<b>Product</b>	<b>Description</b>
<b>Qualification</b>	A qualification combines the skills standards (called units of competency) into meaningful groups that meet workplace roles and align to the Australian Qualifications Framework (AQF).
<b>Unit of competency</b>	A unit of competency describes the requirements for effective performance in a discrete area of work, work function, activity or process. They specify the standard against which training delivery and assessment of competency can take place.
<b>Assessment requirements</b>	Assessment requirements accompany each unit of competency and include the performance evidence, knowledge evidence and conditions for assessment.
<b>Credit arrangements</b>	Credit arrangements provide details of existing arrangements between training package qualifications and higher education qualifications in accordance with the AQF. Note: There are currently no nationally applicable credit arrangements between any Skills Impact training package qualification and higher education qualification.

## Non-endorsed components

<b>Product</b>	<b>Description</b>
<b>Skill set</b>	A skill set addresses a particular industry need or a licensing or regulatory requirement. A skill set is not endorsed but includes endorsed units of competency.
<b>Companion volume</b>	This general term refers to any product (including this Implementation Guide) which supports training and assessment.

## Training package development

Training packages are developed through a process of national consultation with industry. There are some key stakeholders that drive training package development.

### Key stakeholder roles<sup>3</sup>

<b>COAG Industry and Skills Council (CISC)</b>	The CISC is the ministerial council responsible for industry and skills. The CISC provides a forum for intergovernmental collaboration and decision-making about industry competitiveness, productivity and labour market pressures, and skills development and national training arrangements, including training packages.
<b>The Australian Industry and Skills Committee (AISC)</b>	The AISC was established by the CISC in 2015 to provide industry leadership within the national training system. As well as setting the priorities for the review of training packages in a national review schedule, the AISC approves training packages for implementation.
<b>Industry Reference Committees (IRCs)</b>	IRCs are the key industry advisory bodies to the AISC. They are made up of people who are experts in their particular industry sectors. IRCs drive the process of training package development so that the qualifications and units of competency are aligned with modern work practices.
<b>Skills Service Organisations (SSOs)</b>	SSOs are funded by the Australian Government to provide technical, operational and secretariat support to IRCs. SSOs assist IRCs to identify the skills required for jobs. Under the direction of the IRCs, SSOs develop and review compliant training packages that meet industry needs. Skills Impact is an SSO.
<b>Government</b>	The Australian Government supports the AISC and its network of IRCs and manages the SSOs. State and territory governments (referred to as State or Territory Training Authorities (STAs/TTAs)) canvass stakeholder views about training packages, provide implementation advice, identify issues and develop purchasing guides for training providers.
<b>Vocational education and training regulators</b>	The national VET regulator, the Australian Skills Quality Authority (ASQA), and two state-based VET regulators, Victorian Registration and Qualifications Authority (VRQA) and Western Australian Training Accreditation Council (WA TAC), regulate the training and assessment strategies and practices of registered training organisations. Their aim is to ensure consistency with the requirements of the endorsed components of training packages.

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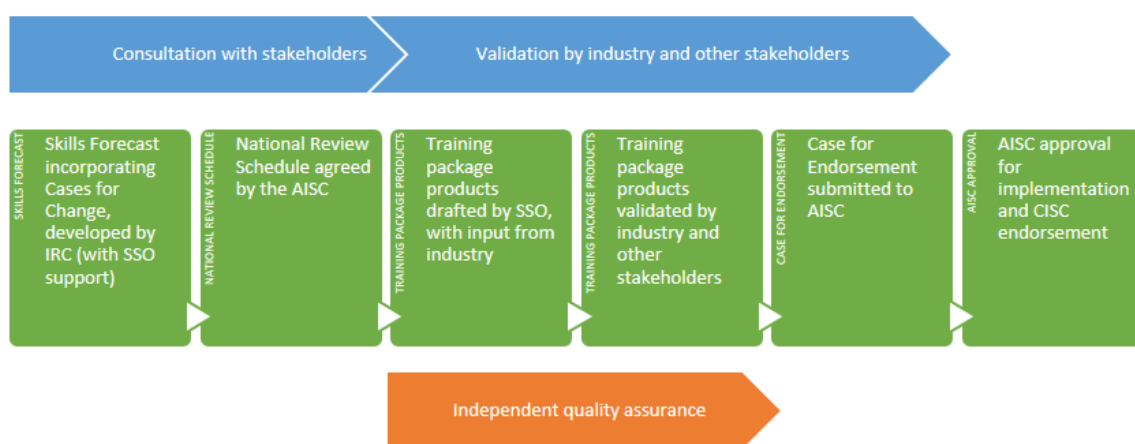
<sup>3</sup> More information about key stakeholder roles is available on the AISC website < <https://www.aisc.net.au>>.

## The development process

The process used to develop and endorse training packages is based on the following principles:

- open and inclusive industry participation in development, validation and endorsement of training packages
- strong stakeholder engagement and the opportunity for industry to drive change
- highly responsive and capable of meeting industry needs and priorities for new skills
- clear and transparent arrangements for resolving contentious issues
- accountability of all stakeholders for the role that they play in the process.

The diagram summarises the process of training package development. <sup>4</sup>



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<sup>4</sup> The training package development and endorsement process policy can be downloaded from the Department of Education, Skills and Employment website <<https://www.dese.gov.au/aisc/resources/training-package-development-and-endorsement-process-policy>>

## Contents of this training package

The *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* contains AQF aligned qualifications, skill sets and units of competency.

### Prerequisite requirements

Some units of competency have prerequisite requirements. This means that an individual must be competent in the prerequisite unit(s) of competency before undertaking any assessment in the unit containing the prerequisite(s).

### Imported units

Qualifications include units of competency from different training packages, including:

- ACM Animal Care and Management
- AMP Australian Meat Processing
- BSB Business Services
- CHC Community Service
- CPC Construction, Plumbing and Services
- CUA Creative Arts and Culture
- CPP Property Services
- FBP Food, Beverage and Pharmaceutical
- FDF Food Processing
- FNS Financial Services
- FSK Foundation Skills
- FWP Forest and Wood Products
- HLT Health
- ICT Information and Communications Technology
- MST Textiles, Clothing and Footwear
- LGA Local Government
- MEM Metal and Engineering
- MSL Laboratory Operations
- MSM Manufacturing
- NWP National Water
- PMB Plastics, Rubber and Cablemaking
- PSP Public Sector
- PUA Public Safety
- RII Resources and Infrastructure Industry
- SIR Retail Services
- SIT Tourism, Travel and Hospitality
- TAE Training and Education
- TLI Transport and Logistics
- UEE Electrotechnology

- UET Transmission, Distribution and Rail Sector.

Please refer to the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Implementation Guide Release 12 Part 2: Component Details* file for lists of:

- qualifications, skill sets and units of competency in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package V8.0*
- units of competency with prerequisite requirements
- imported units of competency.

This file can be downloaded from VETNet at:

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>.

## Mapping information

Mapping to previous versions of a training package can be useful for delivery and assessment because it:

- outlines the changes between current and previous versions of qualifications, skill sets and units of competency
- states whether the vocational outcomes of the current and previous versions of units of competency and qualifications are equivalent
- shows any components that have been added to, or removed from, the training package.

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Note: The mapping tables are summary documents only and cannot be used alone to determine an individual's competence.

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Please refer to the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Implementation Guide Release 9 Part 2: Component Details* file for details of mapping between previous and current qualifications, skill sets and units of competency. This file can be downloaded from VETNet at: <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

### RTO use

An RTO may use the mapping information to help design training and assessment strategies, including recognition of prior learning (RPL) systems. In addition to the mapping information, RPL processes must take into account other evidence of current competency, for example, how long ago an individual was awarded a superseded unit of competency and current work experience.

### Employer use

An employer might use the mapping information to determine whether there are gaps between a qualification held by workers and the current expectations of a job role. Once gaps are identified, this could assist in planning professional development activities.

### Credit arrangements

There are no credit arrangements in the AHC training package at the time of publication

## How equivalence is determined

### Units of Competency

The training package developer determines equivalence based on the definition provided in the *Training Package Products Policy*<sup>5</sup> which state that:

“Training package developers are responsible for mapping units and determining their equivalence status.

- Where a unit of competency is superseded and the workplace outcome of the unit has changed, the superseding unit must be deemed ‘Not Equivalent’.
- The workplace outcome can be determined to have changed when the skills and knowledge (reflected through the elements, performance criteria and assessment requirements) required to achieve the workplace outcome of the superseded and superseding units cannot be mapped to each other.
- Determinations of ‘Not Equivalent’ may also be used to support licensing, regulatory, legislative or certification requirements. The equivalence table must list the units of competency and clearly identify the status of each unit according to the following categories:
  - **Equivalent** - the workplace outcomes of the superseded and superseding units are equivalent
  - **Not Equivalent** - the workplace outcomes of the superseded and superseding units are not equivalent (refer Section 2.5)
  - **Newly created** - the unit has been created to address an emerging skill or task required by industry
  - **Deleted** - the unit is deleted as the skill or task is no longer required by industry”

If two units are determined to be equivalent, an RTO can recognise an ‘old’ unit as satisfying the outcomes of a new unit (including RPL). However, an RTO cannot assume that no changes are needed for the training and assessment of the new unit.

If a unit of competency is not equivalent to its predecessor, this means that there are significant changes in the new unit. These changes would need to be addressed, for example, through training, providing additional RPL evidence.

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<sup>5</sup> The policy is available from the Department of Education, Skills and Employment website at <<https://www.dese.gov.au/skills-support-individuals/resources/training-package-products-policy>>

## Qualifications

'Training package developers are responsible for mapping qualifications and determining their equivalence status.

- Where a qualification is superseded and the occupational outcome and/or the AQF level of the qualification has changed, the superseding qualification must be deemed 'Not Equivalent'.
- The occupational outcome can be determined to have changed when the skills and knowledge required to achieve the occupational outcome of the superseded and superseding qualifications cannot be mapped to each other.
- Determinations of 'Not Equivalent' may also be used to support licensing, regulatory, legislative or certification requirements.
- The equivalence table must list the qualifications and clearly identify the equivalence status of each qualification according to the following categories:
  - **Equivalent** - the occupational outcomes of the superseded and superseding qualifications are equivalent
  - **Not Equivalent** - the occupational outcomes of the superseded and superseding qualifications are not equivalent
  - **Newly Created** - the qualification has been created to address an original skill or occupational outcome required by industry
  - **Deleted** - the qualification is deleted as the skill or occupational outcome is no longer required by industry.'

### Superseded and deleted training package products

A product is **superseded** when another training product replaces it. This happens if the skill needs of industry change so training package developers need to alter a qualification, unit of competency or skill set.

A product is **deleted** when another training product does not replace it. This happens if industry determines that there is no longer sufficient demand for a qualification, unit of competency or skill set. Definition of 'deleted' is also slightly changed in revised policy

ie. A deleted status indicates that a skill, task, or occupational outcome, is no longer required by industry.

(not same as 'no longer sufficient demand')

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The rules around the use of superseded and deleted products for training purposes are in Clause 1.26 of the *Standards for Registered Training Organisation (RTOs) 2015*.

ASQA has a useful guide that explains how to manage the transition from superseded and deleted training products. This can be accessed from: <<https://www.asqa.gov.au/standards/about-standards-rtos-2015/standard-one/clauses-1.26-1.27>>

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## Coding conventions

There are agreed conventions for the national codes used for training packages and their components.

### Training package codes

Each training package has a unique three-letter national code assigned when the Training Package is endorsed, for example, **AHC** is the code used for the *Agriculture, Horticulture and Conservation and Land Management Training Package*.

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The practice of assigning two numbers to identify the year of endorsement is no longer used as it is not consistent with national policy.

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### Qualification codes

Within the training package, each qualification has a unique eight-character code that is used to identify the qualification, along with its title. The table explains the format of a qualification code for the *Agriculture, Horticulture and Conservation and Land Management Training Package*.

Identifiers	Description	Example for AHC31319
Training package identifier	Three letters	= AHC
AQF level identifier	One number identifying the Australian Qualifications Framework level	= 3
Sequence identifier	Two numbers identifying the sequence of the qualification at that level in the Training Package	= 13
Version identifier	Two numbers identifying the year in which the qualification was endorsed.	= 19

## Unit of competency codes

Within the training package, each unit of competency has a unique code (up to 12 characters). The code, as well as the title, is used to identify the unit of competency. The table explains the format of a unit of competency code for the *Agriculture, Horticulture and Conservation and Land Management Training Package*.

Identifiers	Description	Example for <b>AHCIRG401X</b>
<b>Training package identifier</b>	Three letters	= AHC (Agriculture, Horticulture and Conservation and Land Management)
<b>Sector identifier</b>	Two to four letters	= IRG (irrigation)
<b>AQF level indicator</b>	One number that is a guide as to the type and depth of skills and knowledge described in the unit. This identifier is loosely tied to the Australian Qualifications Framework and can range from 1 (indicates Certificate 1) to 8 (indicates Graduate Certificate/Graduate Diploma)	= 4
<b>Sequence identifier</b>	The final numbers identify the sequence of the unit in the particular unit sector and AQF level, and allows each unit to have a unique code	= 01
<b>Cross sector unit</b>	Cross-sector units must have 'X' as the final character	= X

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Under the *Standards for Training Packages*, units of competency no longer include a version identifier (e.g. A, B, C). In training.gov.au the release history of each unit is shown in both the web view of the unit and in the unit modification history and mapping tables.

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## Key work and training requirements in the industry

Agriculture, Horticulture, Conservation and Land Management play vital roles in Australia, contributing to the social, economic and environmental sustainability of the nation. The industry has been at the forefront of Federal, State and Territory Government policies and Australian economic growth throughout the modern history of Australia.

The Agriculture, Horticulture and Conservation and Land Management (AHC) Training Package covers the majority of training in the businesses and operations that underpin the overwhelming majority of Australia's regional, rural and Indigenous communities. The sector employs almost 350,000 people, with more than 72,000 learners serviced by 643 Registered Training Organisations (2017 figures).

**Table 1: Industry snapshot**

Revenue	Industry Value Added <sup>6</sup>	Exports	Imports	Wages	Domestic Demand
\$144.4bn	\$39.1bn	\$18.4bn	\$1.5bn	\$11.2bn	\$127.4bn

Source: IBISWorld Industry Wizard

The AHC Training Package has 902 Units of Competency across 100 qualifications and 54 Unit Sectors. Each qualification within this Training Package typically includes units crossing several different industry sectors.

More than 80 per cent of Australian land hosts activities related to the AHC Training Package, with dominant uses including livestock grazing of native vegetation, grazing of modified pastures, conservation and parks, and dryland cropping. This excludes horticulture, micro-production, landscaping and gardening work within Australia's urban areas.

## Sector description

The agriculture, horticulture and conservation and land management industry sector is highly diverse, encompassing businesses that operate in the following sub-sectors:

<p><b>Amenity horticulture</b></p> <ul style="list-style-type: none"> <li>• Arboriculture</li> <li>• Landscape services</li> <li>• Gardening services</li> <li>• Turf and sports turf management</li> <li>• Permaculture</li> <li>• Green infrastructure</li> </ul> <p><b>Production horticulture</b></p> <ul style="list-style-type: none"> <li>• Turf production (commercial)</li> <li>• Nursery production</li> <li>• Retail nursery</li> </ul>	<p><b>Agriculture support services</b></p> <ul style="list-style-type: none"> <li>• Shearing, cropping and agricultural support service</li> <li>• Water trading</li> <li>• Grain storage services</li> <li>• Agronomy</li> </ul> <p><b>Agricultural product wholesaling</b></p> <ul style="list-style-type: none"> <li>• Fruit and vegetable wholesaling</li> <li>• Cereal grain wholesaling</li> <li>• Wool wholesaling</li> </ul>
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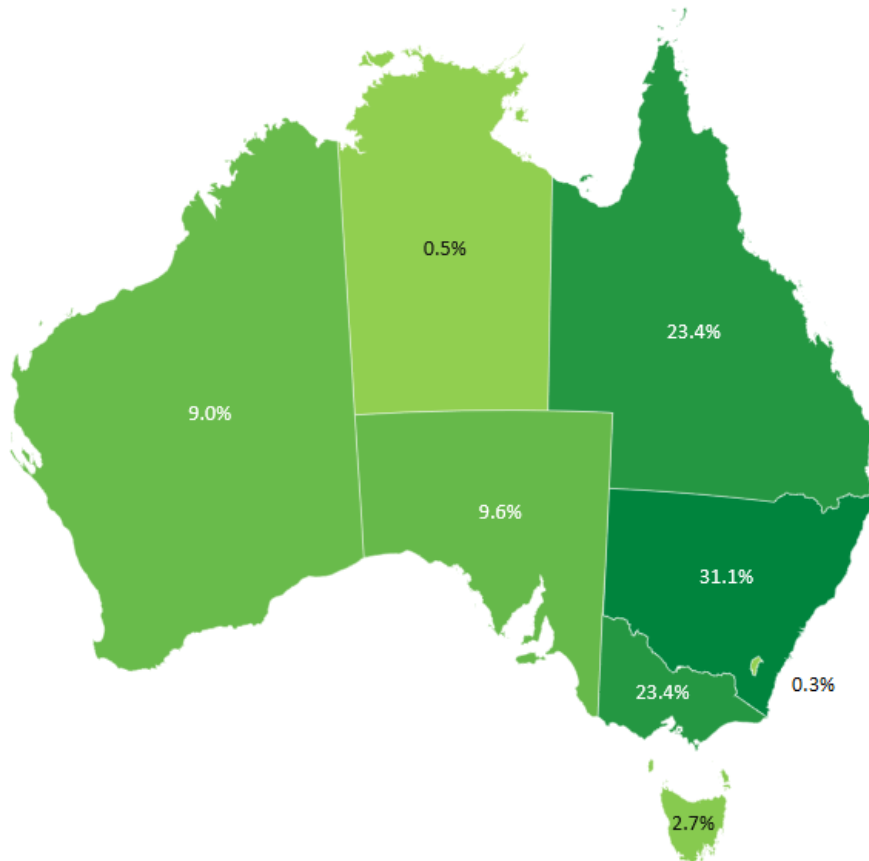
<sup>6</sup> Industry value added (IVA) is the contribution by businesses in each industry to gross domestic product (GDP). Put another way, IVA records the market value of the goods and services produced by the industry, with the cost of goods and services used in production subtracted from the total.

<ul style="list-style-type: none"> <li>• Floriculture production</li> <li>• Vegetable growing</li> <li>• Fruit tree growing</li> <li>• Nut tree growing</li> <li>• Seed processing</li> </ul> <p><b>Broadacre farming</b></p> <ul style="list-style-type: none"> <li>• Grain growing</li> <li>• Fodder growing</li> <li>• Sugar cane growing</li> <li>• Cotton growing</li> <li>• Seed production</li> </ul> <p><b>Livestock farming</b></p> <ul style="list-style-type: none"> <li>• Sheep farming</li> <li>• Beef cattle farming</li> <li>• Sheep-beef cattle farming</li> <li>• Dairy cattle farming</li> <li>• Poultry farming</li> <li>• Other livestock farming</li> </ul> <p><b>Mixed crop and livestock farming</b></p> <ul style="list-style-type: none"> <li>• Grain-sheep farming</li> <li>• Grain-beef cattle farming</li> <li>• Lifestyle block farming</li> </ul>	<ul style="list-style-type: none"> <li>• Fish and seafood wholesaling</li> </ul> <p><b>Conservation &amp; Land Management</b></p> <ul style="list-style-type: none"> <li>• National parks</li> <li>• Nature reserves</li> <li>• Council reserves</li> <li>• Indigenous lands and seas</li> <li>• Corridors (national, state and local)</li> <li>• Botanical gardens</li> <li>• Landcare</li> <li>• Coastcare</li> <li>• Rivercare</li> <li>• Seed banks</li> <li>• Private land</li> </ul> <p><b>Landscaping</b></p> <ul style="list-style-type: none"> <li>• Landscaping construction</li> <li>• Public and private space design and scoping</li> <li>• Feature installation and design</li> <li>• Lawn and garden installation and design</li> <li>• Residential, office &amp; commercial building landscaping and maintenance services</li> <li>• Watering systems and features</li> </ul>
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## Businesses

As at June 2019, there were 179,231 businesses across agriculture, horticulture, agricultural product wholesaling and parks and gardens operations<sup>7</sup>. Over 70 per cent (125,971) of businesses were non-employing, and 28 per cent (50,692) were small businesses, employing fewer than 20 people. There were 2,434 medium businesses (between 20 and 199 employees) and 101 large businesses (over 200 employees).

**Figure 1: Business locations by state**



Source: Australian Bureau of Statistics, 2020, 8165.0 Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019

AHC-related activities are a significant source of employment, particularly in regional, rural and remote areas, and make an important contribution to the Australian economy (see

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<sup>7</sup> Australian Bureau of Statistics, 2020, 8165.0 Counts of Australian Businesses, including Entries and Exits, June 2015 to June 2019

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**Figure 2: AHC Industry Sector Performance, 2019-2020**

Australian Industry Sector	Employment	Wages (\$m)	Revenue (\$m)	Contribution to GDP (\$m)
Floriculture Production	2,090	85.3	276.8	105.2
Under Cover Vegetable Growing	2,473	156.8	757.7	340.5
Outdoor Vegetable Growing	12,911	564.8	4,313.1	1,277.4
Rice Growing	290	3.3	27.2	7.2
Grain Growing	27,537	387.8	13,044.8	4,043.9
Sugar Cane Growing	9,179	132.4	1,037.5	380.9
Cotton Growing	4,783	184.0	1,398.6	564.6
Hay and Other Crop Growing	4,239	114.7	2,100.7	380.9
Apple, Pear and Stone Fruit Growing	6,856	107.8	954.1	201.5
Grape Growing	11,993	263.6	1,559.8	627.1
Olive Growing	1,394	15.0	119.3	41.7
Citrus Fruit, Nut and Other Fruit Growing	12,858	397.3	3,972.8	948.2
Egg Farming	3,994	97.6	868.2	157.4
Poultry Meat Farming	2,201	56.0	580.7	140.6
Sheep Farming	18,273	213.0	4,561.1	1,590.3
Beef Cattle Farming	76,902	1,077.6	16,623.8	6,932.1
Beef Cattle Feedlots	1,994	66.4	4,676.5	651.6
Sheep-Beef Cattle Farming	22,949	194.4	6,184.2	2,554.1
Grain-Sheep or Grain-Beef Cattle Farming	37,209	301.3	11,595.3	4,297.5
Dairy Cattle Farming	17,237	253.1	4,573.9	1,138.6
Pig Farming	2,253	126.8	1,138.3	253.2
Grain Storage	7,051	411.2	2,717.4	747.7
Hydroponic Crop Farming	2,789	170.7	458.5	269.9
Organic Crop Farming	5,171	92.7	1,130.2	373.3
Organic Livestock and Poultry Farming	676	12.7	1,384.7	559.4
Shearing, Cropping & Agricultural Support Services	30,051	708.4	3,909.8	1,321.3
Nursery Production	2,898	133.1	746.7	216.0
Turf Growing	1,139	51.5	259.8	79.1
Landscaping Services	34,463	1,669.5	5,934.5	2,550.4
Gardening Services	41,530	1,308.2	2,667.5	2,019.9
Nature Reserves and Conservation Parks	12,392	588.1	1,618.4	841.6
Zoological and Botanical Gardens	7,207	326.4	850.9	443.4
Organic Farming	6,078	142.4	2,564.2	956.4
Wool Wholesaling	647	36.4	3,806.7	171.3
Cereal Grain Wholesaling	3,266	216.1	21,504.1	824.3
Fruit and Vegetable Wholesaling	14,226	750.9	12,344.0	1,530.7

Source: IBISWorld Australia Industry Wizard

**Figure 3: The industry in a ‘nutshell’**



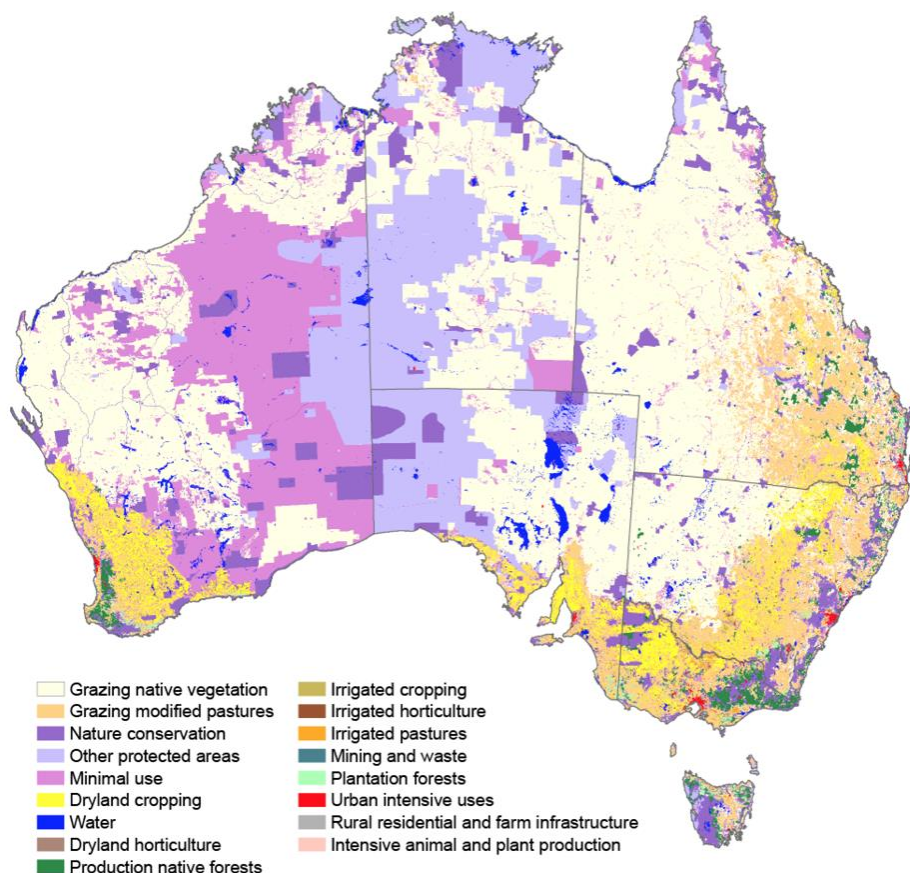
Source: Hort Innovation, 2018, Nursery Industry Statistics and Research, p.3

In addition to businesses, each level of government and a number of Non-Government Organisations are employers of graduates from the AHC Training Package.

The breadth of the scope of work undertaken by these businesses and operations can be illustrated by Australian Land Use mapping, which is regularly undertaken at various levels of government as

information required for current and future policies and strategies. The complexity of activities covered is illustrated in the size and training coverage of the AHC Training Package.

**Figure 4: Land use in Australia**



Source: Australian State of the Environment 2016

<<https://soe.environment.gov.au/theme/land/topic/2016/land-use-and-management>>

It should be noted that many activities in Horticulture, Conservation & Land Management, Landscaping and micro-production also take place in urban intensive areas.

AgriFutures Australia has identified the decline in land used for farming in Australia as a current trend which is likely to be ongoing.

## Future needs

Each year, Skills Impact works on behalf of Industry Reference Committees (IRCs) to develop an IRC Skills Forecast and Proposed Schedule of Work (IRC Skills Forecasts).

Through consultation with industry, IRC Skills Forecasts identify skills gaps, emerging skills needs and associated training needs for industry, and determine whether there is a need to change training packages. The documents propose a plan for reviewing and developing the relevant units, skill sets and qualifications. In April of each year, the relevant IRC submits the Skills Forecast to the [Australian Industry Skills Committee](#) (AISC) for their consideration and approval.

The AISC draws on this information to update their AISC National Schedule, and to determine future Training Package Projects. IRC Skills Forecasts are available to view and download from the Skills Impact website <https://www.skillsimpact.com.au/irc-skills-forecasts/>.

The Amenity Horticulture, Landscaping, Conservation and Land Management Industry Reference Committee (IRC) has responsibility for overseeing the development of industry units of competency, skill sets and qualifications relative to the following sectors:

- Arboriculture
- Carbon Farming
- Conservation and Land Management
- Green Infrastructure.
- Landscaping
- Nature reserves and conservation parks
- Parks and Gardens
- Permaculture
- Production Nursery
- Retail Nursery
- Turf
- Vertebrate and invertebrate pest management
- Weed management.

The Agriculture and Production Horticulture Industry Reference Committee (IRC) has responsibility for overseeing the development of industry units of competency, skill sets and qualifications relative to the following sectors:

- Agricultural chemicals.
- Agricultural irrigation
- Agricultural support services
- Broadacre cropping and farming
- Floriculture production
- Fruit growing
- Livestock farming
- Nut growing
- Vegetable growing.

## Implementation information

### Industry sectors and occupational outcomes of qualifications

The *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* includes units of competency from the following industry sectors.

AGB	Agribusiness	LSK	Livestock
AIS	Artificial Insemination	MAR	Marine
ARB	Arboriculture	MDC	Medicinal Crops
ASW	Aboriginal-Sites Work	MER	Merchandising and Sales
BAC	Broad Acre Cropping	MKH	Milk Harvesting
BEK	Beekeeping	MOM	Machinery Operation and Maintenance
BER	Biosecurity Emergency Response	NRM	Natural Resource Management
BIO	Biosecurity	NSY	Nursery
BUS	Business	ORG	Organic Production
CCF	Community Coordination and Facilitation	PCM	Plant Culture and Maintenance
CFP	Carbon Farming	PER	Permaculture
CHM	Chemicals	PGD	Parks and Gardens
CMN	Common	PHT	Production Horticulture
COM	Composting	PLY	Poultry
DER	Deer	PMG	Pest Management
DES	Design	PRK	Pork
DRG	Drainage	SAW	Soil and Water Conservation
DRY	Dairy	SDT	Seed Processing
ECR	Ecological Restoration	SHG	Shearing
EXP	Explosives	SOL	Soils and Media
FAU	Fauna	SPO	Seed Testing
FIR	Fire	SUS	Sustainability
GRI	Green Infrastructure	THH	Therapeutic Horticulture
HYD	Hydroponics	TRF	Turf Management
ILM	Indigenous Land Management	WAT	Water
INF	Infrastructure	WHS	Work Health and Safety
IRG	Irrigation	WOL	Wool
LPW	Lands, Parks and Wildlife	WRK	Work
LSC	Landscaping		

## Sector overview

### Agriculture and agribusiness

Agriculture and Agribusiness are diverse sectors including both plant and animal-based production systems along with supporting Agribusiness enterprises that supply agriculture goods and services. Job roles within the sector range from farmhands, farm business managers and include numerous agricultural service roles. This sector is a leader in the uptake and development of new technologies and attracting investment on an international level.

Australian producers have a reputation for green and safe agricultural products which provides a marketing advantage that must be retained. As a result, biosecurity will be an important issue as Australia develops its export trade in agricultural goods. There is an increased interest in the area of carbon farming for land owners especially in the area of Emissions Reduction Fund projects which are supported by the Clean Energy Regulator.

### Agricultural chemicals

Agricultural chemicals and veterinary medicines play an essential role in maintaining and improving productivity of agriculture and related industries. The registration of chemicals for use in Australia is controlled by the Australian Pesticides and Veterinary Medicines Authority (APVMA). State and territory governments control the use of pesticides and veterinary medicines. The various state jurisdictions have a range of training requirements for the use and purchase of various classes of pesticides and veterinary medicines.

Currently there is a National Agvet Chemical Task Force looking at developing a more harmonised approach to chemical training requirements. Once this work is complete, a more comprehensive review of Training Package products will be required to ensure vocational training options meet the needs of all stakeholders.

### Animal Reproduction

Farmers need a range of skills and knowledge to manage the reproduction of animals, helping them to keep up with the high demand for products like meat, dairy and wool. Skills to identify breeding objectives, genetic influences, animal soundness and animal breeding health have been used for generations to increase livestock and poultry production and profitability. Recent developments in the availability of technologies have made this work even more effective and efficient, improving animal welfare, profitability and sustainability.

### Arboriculture

Arborists work in private and government positions to foster the economic, ecological, environmental, health and social benefits of trees and professional tree care. Arborists provide for the care and management of trees in conservation and tree preservation roles, tree climbing, tree maintenance, and the diverse operations of vegetation management, power line clearance, professional tree management and urban forestry. Consulting arborists have professional consulting, expert witness, research and academic roles in diagnostic testing and tree assessment.

### Beekeeping

Beekeeping is the maintenance of native and/or honey bee colonies, commonly in hives, by humans. A commercial beekeeper (or apiarist) keeps bees in order to collect their honey and other products that the hive produces (including beeswax, propolis, pollen, and royal jelly) for sale, to pollinate crops, and/or to produce bees for sale to other beekeepers. Beekeeping is a form of animal husbandry that involves providing feed when nectar and pollens are lacking, preventing infections from various microbes and diseases and dealing with parasitic mites.

### Broadacre cropping

Broadacre cropping or farming on arable land exists in Australia wherever farming in the soil is possible, especially across the grain and wheat belts, and for more water intensive crops along the Murray river and in the tropics. Workers in the sector must be skilled in how to grow their crops and related tasks.

### **Carbon farming**

Carbon farming is the process of changing agricultural practices or land use to increase the amount of carbon stored in the soil and vegetation (sequestration) and to reduce greenhouse gas emissions from livestock, soil or vegetation (avoidance). Carbon farming projects contribute to the reduction of Australia's net greenhouse gas emissions by providing incentives to reduce emissions through the Emissions Reduction Fund and non-ERF markets such as voluntary markets (for example, enterprises such as Qantas and Shell) and secondary markets where carbon credits are sold to others who then on sell.

### **Community coordination and facilitation**

Workers in this sector are generally responsible for fostering, promoting, organising and supporting community groups to undertake conservation activities.

### **Composting**

There are approximately 140 businesses around Australia recovering more than 5.2 million tonnes of organic waste and turning it into useful products and services each year. New products are continuously being developed for environmental applications such as erosion control and storm water treatment.

Qualifications and units of competency enable workers to process material into compost-based products such as soil conditioners, mulches, garden soils, top dressing soils and potting mixes and tailored products to be developed for agricultural applications such as fruit and vegetables, grains, pasture improvement and forestry.

Employment in this industry is growing and the units in this Training Package will give employees a career pathway in this and related industries.

### **Conservation coordination and facilitation**

The Conservation and Land Management sector is made up of workers from unskilled to professional levels and includes a large cohort of volunteer workers. There are a number of different areas people may work in the conservation and land management sector. Some examples are conservation earthworks which are involved in the design and implementation of earthworks associated with soil conservation on rural properties, erosion and sediment control on rural, urban and infrastructure construction sites.

### **Dairy**

The Dairy Industry is one of Australia's major rural industries and is located across the temperate and some subtropical areas of Australia. The bulk of milk production occurs in south eastern Australia with Victoria having the largest number of dairy farming enterprises. The associated downstream milk processing industry is also concentrated in the south-eastern regions. Dairy Industry enterprises range from large corporations through to small owner operators. The industry has had a long-term commitment to training which is promoted through its peak body Dairy Australia. This sector of training covers troubleshooting the machines used in large scale milk harvesting.

### **Ecological restoration**

This sector is mostly involved in conservation and restoration of ecological areas in order to regenerate bushlands and improve the ecological integrity and biodiversity of an area. This sector employs a high proportion of volunteers.

## **Explosives**

These units are strictly regulated and are mostly for use in the pest management industry, primarily for the destruction of rabbit warrens.

## **Fauna**

This sector units are utilised across the Conservation and Ecosystem certificates and relate to identifying and monitoring fauna. This sector is of use for rangers and organisations that require ranger like tasks to be performed.

## **Feedlot**

Feedlot operational employees fall into three main classifications: pen riders; feeding and milling operators and feedlot maintenance workers. The *Certificate III in Feedlot Operations* is divided into three streams to reflect these job roles while providing maximum transferability of core and common skills.

## **Fire**

The Fire sector in the AHC training package focuses on burning for ecological purposes. It uses the knowledge of our First Nations burners, who work closely with Skills Impact to make sure the units are culturally appropriate and the knowledge adequately captured. The Country Fire Association has also been heavily consulted to make sure these units are distinctly ecological in nature, as opposed to the Public Safety (PUA) training package which focuses on fire extermination for a professional fire fighter.

## **Floriculture**

Floriculture or flower growing involves the growing, harvesting and preparing flowers and foliage for sale. Floriculture businesses produce fresh and dried flowers and foliage for wholesale flower markets, florists and retail outlets, and increasingly for overseas exporting. The range of different flowers and foliage is immense and could include roses, carnations, orchids, native flowers, bulb and annual flowers, and tropical flowers. Some flower farms also grow flowers in open fields for their essential oils.

## **Green Infrastructure**

Roof garden, vertical wall and green facade infrastructure is a subset of the 'green infrastructure' or 'living infrastructure' industry sector, which is of increasing significance to a range of stakeholders (product suppliers, government policy makers, builders/property developers, landscapers/horticulturalists and the community) as increasing urbanisation motivates green infrastructure projects in urban development for aesthetic, environmental, economic and/or social reasons.

## **Indigenous land management**

Indigenous Land Managers, as the title suggests, are responsible for the management of Indigenous owned/held lands. Indigenous lands may be used for a range of activities including tourism, horticulture and agriculture. Indigenous land management job roles may include a range of these activities as well as conservation and restoration tasks. Indigenous Land Management officers generally use a combination of traditional and contemporary approaches to land management.

## **Irrigation**

Irrigation is the artificial application of water to the land or soil. It is used to assist in the growing of agricultural and horticultural crops, maintenance of landscapes, and revegetation of disturbed soils in areas to replicate the natural rainfall during dry periods. Irrigation systems are also used

for dust suppression, disposal of sewage, and in mining. Irrigation is often associated with drainage, which is the natural or artificial removal of surface and sub--surface water from a given area. The irrigation qualifications and units of competency support the skills base of the industry's retailers, designers, managers, installers and maintenance workers.

The irrigation industry design, manage, install, maintain and monitor irrigation systems ranging from domestic systems through to large commercial irrigation systems. This may include open irrigation and drainage, pressurised or gravity fed irrigation systems. Job roles within the sector range from irrigation installation assistant to irrigation system designer. This sector is a leader in the uptake of technology such as applications (APP) based technology, controller and sensor technology and drones.

### **Lands, parks and wildlife**

Lands parks and wildlife officers, rangers and managers are involved in the management and maintenance of areas of native and cultural significance. They may be employed by government or non-government organisations. Roles will generally involve a mixture of conservation and restoration tasks as well as tourism, education, construction and pest management.

### **Landscape Construction and Design**

A skilled workforce of landscape professionals design, construct and maintain the gardens and green spaces in our public spaces and backyards. As urban city blocks get smaller, people are looking to landscapers to create and deliver outcomes where they can get the most out of their garden space. Many backyards these days are an extension to the living room, so it is important they offer a safe, comfortable, and sustainable space for entertainment and enjoyment. Well-designed public gardens, parks, and streetscapes increase the liveability of local communities.

### **Marine**

The Marine sector is a new group of units that focus on ecological work being undertaken at sea. It recognises the unique needs of these rangers who work in marine environments, as there are skills unique to working in the ocean, even separate from other aquatic environments.

### **Medicinal Cannabis**

Working in the medicinal cannabis industry in Australia involves working in medium to large sized protected cropping facilities where a range of skilled work is undertaken in controlled growing, licensed medicinal cannabis operations. Workers in this sector are required to be over 18 years of age must comply with strict workplace security and regulatory employment obligations while undertaking cultivation and production practices. Tasks may be associated with the propagation, growth and harvesting of the plant and job roles include cultivation technicians and cultivation supervisors and managers. The Australian medicinal cannabis industry is expected to undergo major developments over the next couple of years and significant production and manufacturing capacity coming online from the licensed sector.

### **Organic production**

Organic farming focuses on utilising natural, non--synthetic farming techniques. These include crop rotation, the use of green manure and biological pest control. Organic farms aim to be sustainable with an emphasis on the use of renewable resources. The considerations of energy, soil and water resources as well as the maintenance of environmental quality are key attributes of organic farming.

### **Parks and Gardens**

The Australian parks and gardens industry maintains and manages public green spaces for recreation and leisure that benefit all Australians. Many parks and gardens areas are home to native and unique plant species, animals and historic structures. They hold cultural and social importance and are visited by thousands of locals and tourists every year. The diversity, beauty, safety and sustainability of these parks and gardens is managed and maintained by a skilled workforce of grounds keepers and gardeners. Park managers are responsible for staff and park operations as well as managing contracts for outsourced services

## **Permaculture**

Permaculture is a multi-disciplinary ecological design science focussed on care for the earth, care for people and all species, sharing of surpluses and setting limits to industrial and exploitative growth. It is based on the premise that the planet is a finite ecological system with limited energy and material resources to be shared and managed in a manner inspired by nature.

## **Pest management**

This covers non-urban pest management roles. Integrated pest management requires workers in this field to be able to apply several management options strategically in order to reduce pest damage levels. Pest management officers may be employed by government agencies or private organisations. Pest management may also be undertaken by workers in other industry sectors such as: agriculture; horticulture; conservation and land management; parks and wildlife services; parks and gardens; viticulture and wine grape growing. Pest management covers both plant and animal pests.

## **Pork**

The Australian Pork Industry is spread throughout Australia with a range of enterprise sizes and production systems. There are three main types of pig farming systems: Indoor Housing, Outdoor Bred and Free Range. The pork industry is particularly focused on addressing the welfare needs of pigs, environmental stewardship and the education of stock persons who handle pigs.

## **Poultry**

The Poultry Industry is established in all states of Australia with the focus of the industry in the three eastern states. It is located around capital cities or major provincial centres that are close to cereal grain cropping areas. It comprises two main sectors; poultry meat and egg layer industries. Poultry industry enterprises range from large corporations through to small owner operators. Animal welfare and biosecurity are two key issues which the industry is seeking to address through training.

## **Production horticulture**

Production horticulture is a diverse industry which involves growing and harvesting fruit or vegetables. Production horticulture businesses produce fresh and dried fruit and vegetables for local markets, processing and exporting. The range of produce is vast and could include many varieties of different fruits, nuts and vegetables. Many production horticulture businesses operate as farms growing vegetables, while others are based on extensive orchards. Some businesses are intensive and grow fruit, vegetables and mushrooms in controlled environments.

## **Production nursery**

Production or wholesale nurseries propagate and supply plants to supermarkets, retail nurseries, garden centres and landscapers. They are often large and are generally located on the outskirts of major cities. They may employ from ten to 100 staff. Some also maintain retail outlets.

Production nurseries can also be found in some municipal councils, government departments, landscape companies and 'greening' or revegetation organisations. These nurseries grow plants for local landscape and revegetation projects. Other businesses allied to the nursery industry include indoor plant hire and maintenance companies and suppliers of garden products.

## **Protected horticulture**

Protected Horticulture is a fast growing diverse sector which includes the production of vegetables, and flowers using a ranged of protected horticulture facilities ranging from commercial hydroponics and greenhouse facilities through to covered crops. Job roles within the sector range from picker, packer, crop and nursery worker through to senior grower and

integrated pest manager (IPM). This sector is a leader in the uptake of technology such as controlled environment technology, robotics and automated technology.

### **Retail nursery**

Retail nurseries, also called Garden Centres, sell plants and gardening products to the general public. They employ workers with a good knowledge of plants and gardening products. Most importantly they require workers who can communicate well with customers.

### **Rural Merchandising**

Rural merchandising supports diverse sectors of the agricultural industry, including production horticulture, broad acre crop production, nursery production and protected cropping. Job roles within the sector range from rural sales assistants to specialist rural merchandisers in areas such as; farm machinery, irrigation, livestock, farm chemicals, fertiliser and soil ameliorant sales.

### **Seed processing**

Seed processing involves the cleaning and grading of seed after it has been harvested and dried to meet required levels of physical purity and germination. Cleaning removes extraneous material while grading aims at removal of less developed, dead and diseased seeds. Careful handling and specific procedures are necessary to maintain seed vigour and a satisfactory shelf life in storage. Workers in this industry operate seed processing equipment and machinery, pack and store seed including the operation of vehicles such as a forklift.

### **Seed testing**

Seed testing is the science of evaluating seed quality for agricultural and horticultural purposes. This includes the physical quality of a seed lot including freedom from unwanted seeds and material, and evaluation of the germination potential of the seed. Seed may also be tested for freedom from seed-borne diseases. Seed testing plays a major role in the international trade in seed.

### **Shearing and wool handling**

Professional shearers and wool handlers work as trades' people within the wool harvesting industry sector. Regardless of level they are required to be physically fit, work quickly and consistently with their hands, work confidently with sheep and work as part of a team.

### **Sports turf management**

The Sports Turf Management Industry involves the construction and maintenance of grassed and lawn areas which are used for sport and recreation. The sports turf management industry employs people who care for and manage turf playing surfaces. There are several major employers including local councils, sporting clubs, golf clubs and horse racecourses. The workplaces include bowling greens, lawn tennis courts, cricket wickets, sports fields and ovals, recreational parks and grounds, domestic and commercial mowing and lawn maintenance operations and commercial turf farms. Work in the sports turf management industry focuses on the maintenance of these surfaces and preparation for play.

The work may involve early starting times and some weekend work. Skills in the operation of specialist machinery and equipment are required for work in this industry. At the supervisory and management level, there is also emphasis on agronomy, greens reconstruction and renovation, irrigation management, chemical use and healthy turf growth. Managers are responsible for budgets and may have to report to club committees.

### **Viticulture**

Viticulture is a diverse sector including production of grapes for wine production and table grapes. Job roles within the sector range from pickers, technical scouts to vineyard manager. This sector is a leader in the uptake of technology such as drone and automation.

## Water Trading

Water trading is a part of the WAT training sector and refers to the trading of water and understanding of water entitlements that are attached to parcels of land. This includes carryover water and buying and selling water on approved platforms as well as private sales.

## Wool

Wool classers normally work in shearing sheds as a member of a wool harvesting and preparation team. Some work as wool valuers and assess the value of the wool on behalf of wool buyers, brokers and domestic and overseas woollen mills or in wool rehandling facilities.

## Occupational outcomes

The units of competency, skill sets and qualifications in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* cover a diverse range of work activities within the industry. The following table lists the qualifications and provides an overview of occupational outcomes for each qualification.

Qualification	Overview of occupational outcomes
<p><b>Graduate Diploma</b></p> <ul style="list-style-type: none"> <li>▪ AHC80120 Graduate Diploma of Arboriculture</li> </ul>	<p>The Graduate Certificate reflects the role of advanced practitioners who require high-level knowledge in a range of contexts to carry out highly skilled/specialist work, including research.</p> <p>It is also a pathway to further learning.</p>
<p><b>Advanced Diploma</b></p> <ul style="list-style-type: none"> <li>▪ AHC60216 Advanced Diploma of Horticulture</li> <li>▪ AHC60319 Advanced Diploma of Agribusiness Management</li> <li>▪ AHC60415 Advanced Diploma of Conservation and Land Management</li> <li>▪ AHC60520 Advanced Diploma of Arboriculture</li> </ul>	<p>The Advanced Diploma reflects the role of managers, consultants and leaders who are required to apply specialised knowledge in a range of contexts and undertake advanced skilled or paraprofessional work.</p> <p>The Advanced Diploma serves also as a pathway for further learning.</p>
<p><b>Diploma</b></p> <ul style="list-style-type: none"> <li>▪ AHC50116 Diploma of Agriculture</li> <li>▪ AHC50320 Diploma of Production Horticulture</li> <li>▪ AHC50416 Diploma of Horticulture</li> <li>▪ AHC50520 Diploma of Arboriculture</li> <li>▪ AHC50621 Diploma of Landscape Design</li> <li>▪ AHC50820 Diploma of Nursery Management</li> <li>▪ AHC51019 Diploma of Sports Turf Management</li> <li>▪ AHC51120 Diploma of Conservation and Ecosystem Management</li> <li>▪ AHC51216 Diploma of Community Coordination and Facilitation</li> <li>▪ AHC51316 Diploma of Pest Management</li> <li>▪ AHC51422 Diploma of Agribusiness Management</li> <li>▪ AHC51519 Diploma of Viticulture</li> <li>▪ AHC51619 Diploma of Irrigation Design</li> <li>▪ AHC51816 Diploma of Organic Farming</li> <li>▪ AHC51920 Diploma of Applied Agronomy</li> </ul>	<p>The Diploma qualification reflects the role of individuals who apply integrated technical and theoretical concepts in a broad range of contexts and undertake skilled or paraprofessional work. The Diploma is suitable for supervisors, managers, consultants and specialist job roles.</p> <p>The Diploma serves also as a pathway for further learning.</p>

Qualification	Overview of occupational outcomes
<ul style="list-style-type: none"> <li>▪ AHC50621 Diploma of Landscape Design</li> <li>▪ AHC52021 Diploma of Landscape Construction Management</li> <li>▪ AHC52116 Diploma of Permaculture</li> </ul>	
<p><b>Certificate IV</b></p> <ul style="list-style-type: none"> <li>▪ AHC40116 Certificate IV in Agriculture</li> <li>▪ AHC40219 Certificate IV in Protected Horticulture</li> <li>▪ AHC40320 Certificate IV in Production Horticulture</li> <li>▪ AHC40416 Certificate IV in Horticulture</li> <li>▪ AHC40620 Certificate IV in Nursery Operations</li> <li>▪ AHC40920 Certificate IV in Conservation and Ecosystem Management</li> <li>▪ AHC41019 Certificate IV in Agribusiness</li> <li>▪ AHC41119 Certificate IV in Irrigation Management</li> <li>▪ AHC41316 Certificate IV in Wool Classing</li> <li>▪ AHC41616 Certificate IV in Organic Farming</li> <li>▪ AHC41716 Certificate IV in Pest Management</li> <li>▪ AHC42021 Certificate IV in Landscape Construction Management</li> <li>▪ AHC42116 Certificate IV in Permaculture</li> <li>▪ AHC42320 Certificate IV in Medicinal Cannabis cultivation and production</li> <li>▪ AHC42421 Certificate IV in Landscape Design</li> </ul>	<p>The Certificate IV qualification reflects the role of individuals to undertake work in varied contexts using a broad range of specialised knowledge and skills. Certificate IV is suitable for senior workers and technicians who supervise or lead teams. Certificate IV also serves as a pathway for further learning.</p>
<p><b>Certificate III</b></p> <ul style="list-style-type: none"> <li>▪ AHC30116 Certificate III in Agriculture</li> <li>▪ AHC30221 Certificate III in Dairy Production</li> <li>▪ AHC30318 Certificate III in Rural and Environmental Pest Management</li> <li>▪ AHC30416 Certificate III in Pork Production</li> <li>▪ AHC30516 Certificate III in Poultry Production</li> <li>▪ AHC30620 Certificate III in Production Horticulture</li> <li>▪ AHC30716 Certificate III in Horticulture</li> <li>▪ AHC30820 Certificate III in Arboriculture</li> <li>▪ AHC30921 Certificate III in Landscape Construction</li> <li>▪ AHC31021 Certificate III in Parks and Gardens</li> <li>▪ AHC31120 Certificate III in Nursery Operations</li> <li>▪ AHC31319 Certificate III in Sports Turf Management</li> <li>▪ AHC31421 Certificate III in Conservation and Ecosystem Management</li> <li>▪ AHC31516 Certificate III in Indigenous Land Management</li> <li>▪ AHC31616 Certificate III in Lands, Parks and Wildlife</li> <li>▪ AHC31818 Certificate III in Beekeeping</li> <li>▪ AHC32216 Certificate III in Commercial Composting</li> <li>▪ AHC32422 Certificate III in Irrigation Technology</li> <li>▪ AHC32516 Certificate III in Aboriginal Sites Work</li> </ul>	<p>The Certificate III qualification reflects the role of individuals required to apply a broad range of knowledge and skills in varied contexts and undertake skilled work. Certificate III is suitable for experienced operators, technicians and trades workers. Certificate III serves also as a pathway for further learning.</p>

Qualification	Overview of occupational outcomes
<ul style="list-style-type: none"> <li>▪ AHC32720 Certificate III in Rural Merchandising</li> <li>▪ AHC32816 Certificate III in Rural Operations</li> <li>▪ AHC32916 Certificate III in Shearing</li> <li>▪ AHC33016 Certificate III in Wool Clip Preparation</li> <li>▪ AHC33116 Certificate III in Advanced Wool Handling</li> <li>▪ AHC33316 Certificate III in Feedlot Operations</li> <li>▪ AHC33719 Certificate III in Protected Horticulture</li> <li>▪ AHC33816 Certificate III in Permaculture</li> <li>▪ AHC33920 Certificate III in Medicinal Cannabis Cultivation and Production</li> </ul>	
<p><b>Certificate II</b></p> <ul style="list-style-type: none"> <li>▪ AHC20116 Certificate II in Agriculture</li> <li>▪ AHC20320 Certificate II in Production Horticulture</li> <li>▪ AHC20416 Certificate II in Horticulture</li> <li>▪ AHC20520 Certificate II in Arboriculture</li> <li>▪ AHC20621 Certificate II in Parks and Gardens</li> <li>▪ AHC20720 Certificate II in Nursery Operations</li> <li>▪ AHC20919 Certificate II in Sports Turf Management</li> <li>▪ AHC21020 Certificate II in Conservation and Ecosystem Management</li> <li>▪ AHC21119 Certificate II in Irrigation</li> <li>▪ AHC21216 Certificate II in Rural Operations</li> <li>▪ AHC21316 Certificate II in Shearing</li> <li>▪ AHC21416 Certificate II in Wool Handling</li> <li>▪ AHC21621 Certificate II in Landscaping</li> <li>▪ AHC21716 Certificate II in Permaculture</li> <li>▪ AHC21819 Certificate II in Protected Horticulture</li> </ul>	<p>The Certificate II qualification reflects the role of individuals who undertake mainly routine work. Generally, Certificate II is used as an induction into the industry and is aligned to operator, production and assistant roles. Certificate II serves also to offer a pathway for further learning.</p>
<p><b>Certificate I</b></p> <ul style="list-style-type: none"> <li>▪ AHC10120 Certificate I in Conservation and Ecosystem Management</li> <li>▪ AHC10216 Certificate I in AgriFood Operations</li> <li>▪ AHC10316 Certificate I in Horticulture</li> <li>▪ AHC10416 Certificate I in Permaculture</li> </ul>	<p>The purpose of Certificate I qualifications is to provide individuals with basic functional knowledge and skills to undertake work, further learning, and community involvement in the industry. Certificate I may be used as an induction into to the industry.</p>

## Occupational outcomes

The following tables provide typical occupational outcomes of each AQF qualification in each industry sector.<sup>8</sup>

### Agribusiness

Qualification	Typical occupational outcomes
AHC41019 Certificate IV in Agribusiness	<ul style="list-style-type: none"> <li>▪ Agribusiness team leader/supervisor</li> <li>▪ Agribusiness administrator</li> </ul>
AHC51422 Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Farm manager/administrator</li> <li>▪ Production unit manager/administrator</li> <li>▪ Station/property manager</li> <li>▪ Agribusiness manager/administrator</li> <li>▪ Horticulture production manager</li> </ul>
AHC60319 Advanced Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Rural and regional agribusiness manager or advisor (including lending managers, insurance brokers, machinery dealers, chemical resellers, stock agents, grain marketers)</li> <li>▪ Agribusiness advisor/consultant</li> <li>▪ Agriculture enterprise business manager</li> <li>▪ Production horticulture enterprise business manager</li> </ul>

### Agronomy

Qualification	Typical occupational outcomes
AHC51920 Diploma of Applied Agronomy	<ul style="list-style-type: none"> <li>▪ Agronomist</li> </ul>

### Animal and other livestock production

Qualification	Typical occupational outcomes
AHC20116 Certificate II in Agriculture	<ul style="list-style-type: none"> <li>▪ Assistant cattle farmhand</li> <li>▪ Assistant dairy farmhand</li> <li>▪ Assistant piggery attendant</li> <li>▪ Assistant poultry farmhand</li> <li>▪ Assistant sheep and grain farmhand</li> <li>▪ Assistant sheep and wool farmhand</li> <li>▪ Stud farmhand</li> </ul>

<sup>8</sup> Information provided as a guide only. Some information is sourced from The Australian Apprenticeships & Traineeships Information Service <aapathways.com.au/jpc> which is funded by the Australian Government Department of Education and Training. Information in the tables is based on <<http://www.aapathways.com.au/Career-Resources/Job-Pathway-Charts-Link/Job-Pathways-Charts-PDF>>.

AHC30116 Certificate III in Agriculture	<ul style="list-style-type: none"> <li>▪ Cattle farmhand</li> <li>▪ Livestock transporter</li> <li>▪ Station hand (sheep and wheat)</li> <li>▪ Station hand (sheep and wool)</li> <li>▪ Stud farm worker</li> </ul>
AHC31818 Certificate III in Beekeeping	<ul style="list-style-type: none"> <li>▪ Beekeeper</li> </ul>
AHC30221 Certificate III in Dairy Production	<ul style="list-style-type: none"> <li>▪ Dairy farmhand</li> </ul>
AHC30416 Certificate III in Pork Production	<ul style="list-style-type: none"> <li>▪ Piggery attendant</li> </ul>
AHC30516 Certificate III in Poultry Production	<ul style="list-style-type: none"> <li>▪ Poultry hand</li> </ul>
AHC33316 Certificate III in Feedlot Operations	<ul style="list-style-type: none"> <li>▪ Feedlot feeding and milling hand</li> <li>▪ Feedlot maintenance hand</li> </ul>
AHC40116 Certificate IV in Agriculture	<ul style="list-style-type: none"> <li>▪ Dairy farm supervisor</li> <li>▪ Farm supervisor (sheep)</li> <li>▪ Head stockperson (beef cattle)</li> <li>▪ Piggery unit supervisor</li> <li>▪ Stud farm supervisor/manager</li> </ul>
AHC41616 Certificate IV in Organic Farming	<ul style="list-style-type: none"> <li>▪ Organic beef farmer</li> </ul>
AHC50116 Diploma of Agriculture	<ul style="list-style-type: none"> <li>▪ Farm production manager (beef cattle)</li> <li>▪ Station manager (sheep and grain)</li> </ul>
AHC60319 Advanced Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Agribusiness enterprise business manager</li> </ul>

## Arboriculture

Qualification	Typical occupational outcomes
AHC20520 Certificate II in Arboriculture	<ul style="list-style-type: none"> <li>▪ Ground-based tree worker</li> </ul>
AHC30820 Certificate III in Arboriculture	<ul style="list-style-type: none"> <li>▪ Climbing arborist</li> <li>▪ Elevated work platform arborist</li> <li>▪ Crane specialist arborist</li> <li>▪ Environmental arborist</li> <li>▪ Arborist works coordinator</li> </ul>
AHC50520 Diploma of Arboriculture	<ul style="list-style-type: none"> <li>▪ Tree manager</li> <li>▪ Consulting arborist</li> </ul>
AHC60520 Advanced Diploma of Arboriculture	<ul style="list-style-type: none"> <li>▪ Consulting arborist</li> <li>▪ Specialist consulting arborist</li> <li>▪ Senior tree manager</li> </ul>
AHC80120 Graduate Diploma of Arboriculture	<ul style="list-style-type: none"> <li>▪ Senior consulting arborist</li> <li>▪ Specialist consulting arborist</li> <li>▪ Senior tree manager</li> <li>▪ Senior technical/research arborist</li> </ul>

## Conservation and ecosystem management

Qualification	Typical occupational outcomes
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AHC21020 Certificate II in Conservation and Ecosystem Management	<ul style="list-style-type: none"> <li>▪ Conservation worker - land management</li> <li>▪ Conservation worker - parks and wildlife</li> <li>▪ Earthworks conservation worker</li> </ul>
AHC30318 Certificate III in Rural and Environmental Pest Management	<ul style="list-style-type: none"> <li>▪ Pest management field officer</li> <li>▪ Pest management contracting</li> <li>▪ Vertebrate pest management field officer</li> <li>▪ Weed management field officer in the pest management industry</li> </ul>
AHC31421 Certificate III in Conservation and Ecosystem Management	<ul style="list-style-type: none"> <li>▪ Land rehabilitation worker</li> <li>▪ National parks worker</li> <li>▪ Revegetation worker</li> <li>▪ National parks ranger</li> <li>▪ Land rehabilitation worker</li> <li>▪ Revegetation worker</li> <li>▪ Earthworks conservation technician</li> <li>▪ Rehabilitation of mined land worker</li> </ul>
AHC40920 Certificate IV in Conservation and Ecosystem Management	<ul style="list-style-type: none"> <li>▪ Senior conservation worker</li> </ul>
AHC41716 Certificate IV in Pest Management	<ul style="list-style-type: none"> <li>▪ Senior field officer – pest management</li> <li>▪ Supervisor – pest management</li> </ul>
AHC51120 Diploma of Conservation and Ecosystem Management	<ul style="list-style-type: none"> <li>▪ Senior park ranger</li> </ul>
AHC51216 Diploma of Community Coordination and Facilitation	<ul style="list-style-type: none"> <li>▪ Community project coordinator (land care)</li> </ul>
AHC51316 Diploma of Pest Management	<ul style="list-style-type: none"> <li>▪ Senior officer – pest management</li> <li>▪ Manager – pest management</li> </ul>
AHC21020 Certificate II in Conservation and Ecosystem Management	<ul style="list-style-type: none"> <li>▪ Conservation worker - land management</li> <li>▪ Conservation worker - parks and wildlife</li> <li>▪ Earthworks conservation worker</li> </ul>
AHC30318 Certificate III in Rural and Environmental Pest Management	<ul style="list-style-type: none"> <li>▪ Pest management field officer</li> <li>▪ Pest management contracting</li> <li>▪ Vertebrate pest management field officer</li> <li>▪ Weed management field officer in the pest management industry</li> </ul>

## Dairy

Qualification	Typical occupational outcomes
AHC30221 Certificate III in Dairy Production	<ul style="list-style-type: none"> <li>▪ Dairy worker</li> </ul>

## Gardening

Qualification	Typical occupational outcomes
AHC20621 Certificate II in Parks and Gardens	<ul style="list-style-type: none"> <li>▪ Park and gardens assistant</li> </ul>

AHC20919 Certificate II in Sports Turf Management	<ul style="list-style-type: none"> <li>▪ Sports turf support person</li> <li>▪ Sports turf volunteer</li> </ul>
AHC21621 Certificate II in Landscaping	<ul style="list-style-type: none"> <li>▪ Landscaping assistant</li> </ul>
AHC30921 Certificate III in Landscape Construction	<ul style="list-style-type: none"> <li>▪ Landscape gardener</li> </ul>
AHC31021 Certificate III in Parks and Gardens	<ul style="list-style-type: none"> <li>▪ Parks and gardens tradesperson</li> </ul>
AHC31319 Certificate III in Sports Turf Management	<ul style="list-style-type: none"> <li>▪ Sports turf tradesperson including green keeper and grounds person</li> </ul>
AHC42021 Certificate IV in Landscape Construction Management	<ul style="list-style-type: none"> <li>▪ Landscape contractor supervisor</li> </ul>
AHC42421 Certificate IV in Landscape Design	<ul style="list-style-type: none"> <li>▪ Landscape designer</li> </ul>
AHC50621 Diploma of Landscape Design	<ul style="list-style-type: none"> <li>▪ Landscape designer</li> </ul>
AHC51019 Diploma of Sports Turf Management	<ul style="list-style-type: none"> <li>▪ Sports turf manager, including golf course superintendent, grounds manager, golf course curator, head bowling greenkeeper, race track manager</li> <li>▪ Sports turf management consultant</li> </ul>
AHC52021 Diploma of Landscape Construction Management	<ul style="list-style-type: none"> <li>▪ Landscape project manager</li> </ul>
AHC60216 Advanced Diploma of Horticulture	<ul style="list-style-type: none"> <li>▪ Horticultural business manager</li> </ul>

### Grain production

Qualification	Typical occupational outcomes
AHC30116 Certificate III in Agriculture	<ul style="list-style-type: none"> <li>▪ Farmhand (grain)</li> <li>▪ Station hand (sheep and wheat)</li> </ul>
AHC40116 Certificate IV in Agriculture	<ul style="list-style-type: none"> <li>▪ Farm supervisor (grain)</li> </ul>
AHC41616 Certificate IV in Organic Farming	<ul style="list-style-type: none"> <li>▪ Organic farmer (grain crops)</li> </ul>
AHC50116 Diploma of Agriculture	<ul style="list-style-type: none"> <li>▪ Farm manager (rice)</li> <li>▪ Station manager (sheep and grain)</li> </ul>
AHC51816 Diploma of Organic Farming	<ul style="list-style-type: none"> <li>▪ Organic farm production manager (grain crops)</li> </ul>
AHC60319 Advanced Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Agribusiness enterprise business manager</li> </ul>

### Horticulture

Qualification	Typical occupational outcomes
AHC20416 Certificate II in Horticulture	<ul style="list-style-type: none"> <li>▪ Horticulture assistant</li> </ul>
AHC30716 Certificate III in Horticulture	<ul style="list-style-type: none"> <li>▪ Horticulturalist</li> </ul>
AHC40416 Certificate IV in Horticulture	<ul style="list-style-type: none"> <li>▪ Horticulture team leader</li> </ul>
AHC50416 Diploma of Horticulture	<ul style="list-style-type: none"> <li>▪ Horticultural manager</li> </ul>
AHC60216 Advanced Diploma of Horticulture	<ul style="list-style-type: none"> <li>▪ Horticultural business manager</li> </ul>

## Indigenous land management

Qualification	Typical occupational outcomes
AHC21020 Certificate II in Conservation and Land Management	<ul style="list-style-type: none"> <li>▪ Conservation worker</li> <li>▪ Indigenous land management</li> </ul>
AHC31516 Certificate III in Indigenous Land Management	<ul style="list-style-type: none"> <li>▪ Indigenous land worker</li> </ul>
AHC32516 Certificate III in Aboriginal Sites Work	<ul style="list-style-type: none"> <li>▪ Cultural and heritage officer</li> <li>▪ Site officer (Aboriginal land council)</li> </ul>
AHC40920 Certificate IV in Conservation and Land Management	<ul style="list-style-type: none"> <li>▪ Senior conservation worker</li> </ul>
AHC51116 Diploma of Conservation and Land Management	<ul style="list-style-type: none"> <li>▪ Indigenous land manager</li> </ul>

## Irrigation

Qualification	Typical occupational outcomes
AHC21119 Certificate II in Irrigation	<ul style="list-style-type: none"> <li>▪ Irrigation installation assistant</li> </ul>
AHC32422 Certificate III in Irrigation Technology	<ul style="list-style-type: none"> <li>▪ Irrigation installer</li> <li>▪ Irrigation maintainer</li> </ul>
AHC41119 Certificate IV in Irrigation Management	<ul style="list-style-type: none"> <li>▪ Irrigation installation supervisor</li> <li>▪ Irrigation installation site manager</li> <li>▪ Irrigation manager</li> <li>▪ Irrigation sales management</li> </ul>
AHC51619 Diploma of Irrigation Design	<ul style="list-style-type: none"> <li>▪ Irrigation system designer</li> <li>▪ Irrigation business manager</li> <li>▪ Irrigation system assessor</li> </ul>

## Medicinal Cannabis

Qualification	Typical occupational outcomes
AHC33920 Certificate III in Medicinal Cannabis Cultivation and Production	<ul style="list-style-type: none"> <li>▪ Cultivation technician</li> </ul>
AHC42320 Certificate IV in Medicinal Cannabis Cultivation and Production	<ul style="list-style-type: none"> <li>▪ Cultivation supervisor/manager</li> </ul>

## Permaculture

Qualification	Typical occupational outcomes
AHC33816 Certificate III in Permaculture	<ul style="list-style-type: none"> <li>▪ Permaculture farm hand</li> </ul>
AHC42116 Certificate IV in Permaculture	<ul style="list-style-type: none"> <li>▪ Permaculture project supervisor</li> </ul>
AHC52116 Diploma of Permaculture	<ul style="list-style-type: none"> <li>▪ Permaculture specialist</li> </ul>

## Production horticulture

Qualification	Typical occupational outcomes
AHC20116 Certificate II in Agriculture	<ul style="list-style-type: none"> <li>▪ Assistant grain farmhand</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Assistant horticultural crop farmhand</li> </ul>
AHC20320 Certificate II in Production Horticulture	<ul style="list-style-type: none"> <li>▪ Field worker</li> <li>▪ Picker</li> <li>▪ Pruner</li> <li>▪ Packer</li> </ul>
AHC20720 Certificate II in Nursery Operations	<ul style="list-style-type: none"> <li>▪ Production nursery assistant</li> </ul>
AHC21819 Certificate II in Protected Horticulture	<ul style="list-style-type: none"> <li>▪ Supervised picker</li> <li>▪ Production nursery worker</li> <li>▪ Retail nursery sales assistant</li> <li>▪ Retail nursery maintainer</li> </ul>
AHC30620 Certificate III in Production Horticulture	<ul style="list-style-type: none"> <li>▪ Field worker</li> <li>▪ Seeding person</li> <li>▪ Operator</li> <li>▪ Irrigation maintainer</li> <li>▪ Machinery maintainer</li> <li>▪ Leading hand vegetable grower</li> </ul>
AHC31120 Certificate III in Nursery Operations	<ul style="list-style-type: none"> <li>▪ Trade level roles in the nursery production and retail nursery industry</li> </ul>
AHC40116 Certificate IV in Agriculture	<ul style="list-style-type: none"> <li>▪ Cotton farm supervisor</li> </ul>
AHC40320 Certificate IV in Production Horticulture	<ul style="list-style-type: none"> <li>▪ Production horticulture; <ul style="list-style-type: none"> <li>○ Grower</li> <li>○ Field manager</li> <li>○ Supervisor</li> <li>○ Crop grower</li> <li>○ Plant manager</li> <li>○ Integrated pest manager</li> <li>○ Quality assurance</li> <li>○ Compliance manager</li> </ul> </li> <li>▪ Human resources manager</li> </ul>
AHC33719 Certificate III in Protected Horticulture	<ul style="list-style-type: none"> <li>▪ Picker</li> <li>▪ Packer</li> <li>▪ Crop worker</li> <li>▪ Nursery assistant</li> </ul>
AHC40620 Certificate IV in Nursery Operations	<ul style="list-style-type: none"> <li>▪ Integrated pest manager</li> <li>▪ Production nursery; <ul style="list-style-type: none"> <li>○ Irrigation manager</li> <li>○ Dispatch manager</li> <li>○ Head grower</li> <li>○ Sales manager</li> <li>○ Site manager</li> <li>○ Quality assurance manager</li> </ul> </li> <li>▪ Retail nursery; <ul style="list-style-type: none"> <li>○ Stock supervisor</li> <li>○ Sales manager</li> <li>○ Green life buyer</li> <li>○ Nursery manager</li> </ul> </li> <li>▪ Merchandiser</li> </ul>
AHC40219 Certificate IV in Protected Horticulture	<ul style="list-style-type: none"> <li>▪ Leading hand/Coordinator</li> <li>▪ Supervisor</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Trainer</li> </ul>
AHC50320 Diploma of Production Horticulture	<ul style="list-style-type: none"> <li>▪ Owner</li> <li>▪ Farm manager</li> <li>▪ Production horticulture; <ul style="list-style-type: none"> <li>○ Head grower</li> <li>○ Crop manager</li> <li>○ Section manager</li> <li>○ Dispatch manager</li> <li>○ Sales manager</li> <li>○ Marketing manager</li> </ul> </li> <li>▪ Specialist consultants</li> </ul>
AHC50820 Diploma of Nursery Management	<ul style="list-style-type: none"> <li>▪ Owner</li> <li>▪ Farm manager</li> <li>▪ Production or retail nursery; <ul style="list-style-type: none"> <li>○ Head grower</li> <li>○ Crop manager</li> <li>○ Sales manager</li> <li>○ Marketing manager</li> </ul> </li> <li>▪ Specialist consultants</li> </ul>
AHC51516 Diploma of Viticulture	<ul style="list-style-type: none"> <li>▪ Viticulturalist</li> <li>▪ Vineyard manager</li> <li>▪ Foliage manager</li> <li>▪ Irrigation manager</li> <li>▪ Sprayer/chemical manager</li> </ul>
AHC60216 Advanced Diploma of Horticulture	<ul style="list-style-type: none"> <li>▪ Horticultural business manager</li> </ul>
AHC60316 Advanced Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Agribusiness enterprise business manager</li> </ul>

### Retail nursery

Qualification	Typical occupational outcomes
AHC60216 Advanced Diploma of Horticulture	<ul style="list-style-type: none"> <li>▪ Horticultural business manager</li> </ul>

### Rural and general operations

Qualification	Typical occupational outcomes
AHC21216 Certificate II in Rural Operations	<ul style="list-style-type: none"> <li>▪ Rural operations worker</li> </ul>
AHC32216 Certificate III in Commercial Composting	<ul style="list-style-type: none"> <li>▪ Commercial composting plant operator</li> </ul>
AHC32720 Certificate III in Rural Merchandising	<ul style="list-style-type: none"> <li>▪ Rural merchandiser</li> <li>▪ Rural sales assistant</li> </ul>
AHC32816 Certificate III in Rural Operations	<ul style="list-style-type: none"> <li>▪ Senior rural operations farmhand</li> </ul>
AHC41019 Certificate IV in Agribusiness	<ul style="list-style-type: none"> <li>▪ Agribusiness administrator</li> </ul>
AHC51422 Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Agribusiness manager</li> </ul>
AHC60319 Advanced Diploma of Agribusiness Management	<ul style="list-style-type: none"> <li>▪ Agribusiness enterprise business manager</li> </ul>

## Shearing/Wool harvesting & handling

Qualification	Typical occupational outcomes
AHC21316 Certificate II in Shearing	<ul style="list-style-type: none"><li>▪ Shearer novice level</li></ul>
AHC21416 Certificate II in Wool Handling	<ul style="list-style-type: none"><li>▪ Wool handling assistant</li></ul>
AHC32916 Certificate III in Shearing	<ul style="list-style-type: none"><li>▪ Shearer - professional level</li></ul>
AHC33016 Certificate III in Wool Clip Preparation	<ul style="list-style-type: none"><li>▪ Owner wool classer</li></ul>
AHC33116 Certificate III in Advanced Wool Handling	<ul style="list-style-type: none"><li>▪ Shearing shed hand</li></ul>
AHC41316 Certificate IV in Wool Classing	<ul style="list-style-type: none"><li>▪ Wool classer</li></ul>

## Key features of the training package and the industry that will impact on the selection of training pathways

A pathway is the route or course of action taken to get to a destination. A training pathway means the learning activities or experiences used to attain the competencies needed to achieve career goals.

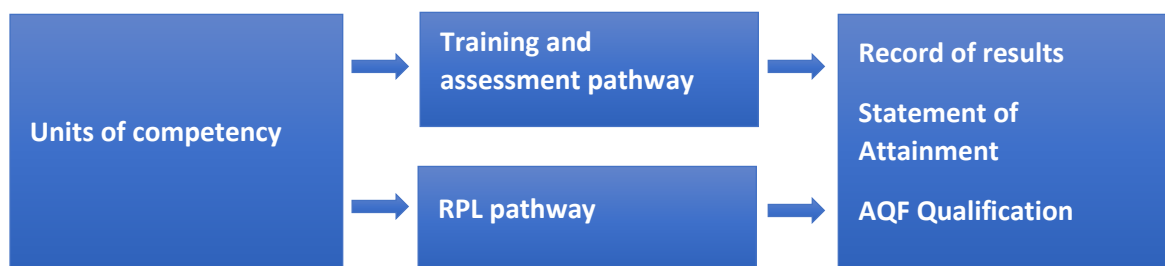
### AQF Qualifications Pathways Policy Requirements

The AQF Qualifications Pathways Policy,<sup>9</sup> as part of the Australian Qualifications Framework, supports students' lifelong learning by aiming to:

- recognise the multiple pathways that students take to gain AQF qualifications and that learning can be formal and informal
- enhance student progression into and between AQF qualifications, both horizontally (across AQF qualifications at the same level) and vertically (between qualifications at different levels).
- support the development of clear pathways in the design of qualifications.

### Multiple pathways to gain qualifications

In line with requirements of the *AQF Pathways Policy*, the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* allows for individuals to follow a training and assessment pathway, or recognition of prior learning (RPL) pathway (or combinations of each pathway) to complete the units of competency needed to be awarded a qualification. These pathways are shown in the following diagram.



### Training and assessment pathway

Training and assessment pathways usually incorporate a mix of formal, structured training and workplace experience to build skills and knowledge together with formative and summative assessment activities through which individuals can demonstrate their skills and knowledge. Structured training and assessment courses may be conducted:

- face-to-face
- by distance or e-learning
- in the workplace.
- by combining face-to-face, distance, e-learning and/or workplace delivery.

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<sup>9</sup> The AQF Qualifications Pathways Policy is available to download from the Australian Qualifications Framework website: <<http://www.aqf.edu.au/aqf/in-detail/aqf-policies/>>

## Recognition for Prior Learning (RPL) pathway

RPL acknowledges that individuals may already have the skills and knowledge required for all or part of a qualification. Individuals can gain credit towards a qualification by providing evidence of their current competency, which may have been gained through formal or informal learning, work experience or general life experience.

## Australian apprenticeships/traineeships

Apprenticeships and traineeships are legally binding training arrangements, between an employer and employee, which combine training with paid employment. Australian Apprenticeships are delivered through a cooperative arrangement between the Australian Government, State and Territory Governments, industry employers and RTOs. Each State or Territory Training Authority (STA/TTA) is responsible for apprenticeships and traineeships in its jurisdiction.<sup>10</sup>

RTOs should contact relevant jurisdictional agencies to clarify available support for implementation of particular qualifications.

## VET for secondary students

Vocational Education and Training (VET) programs enable students to acquire workplace skills and knowledge while they are still at school. Successful completion of a VET program provides a student with a nationally recognised AQF qualification (or particular units of competency), usually as part of a senior secondary certificate. VET programs are packaged and delivered in various ways across Australia. The three main delivery arrangements used are:

- schools hold RTO status
- school sectoral bodies (such as Boards of Studies or regional offices) hold RTO status on behalf of a group of schools
- schools work in partnership with RTOs.

The following qualification may be suitable for delivery to secondary students:

- Certificate I in AgriFood Operations
- Certificate I in Conservation and Ecosystem Management
- Certificate I in Horticulture
- Certificate II in Agriculture
- Certificate II in Arboriculture
- Certificate II in Conservation and Ecosystem Management
- Certificate II in Horticulture
- Certificate II in Irrigation
- Certificate II in Landscaping
- Certificate II in Parks and Gardens

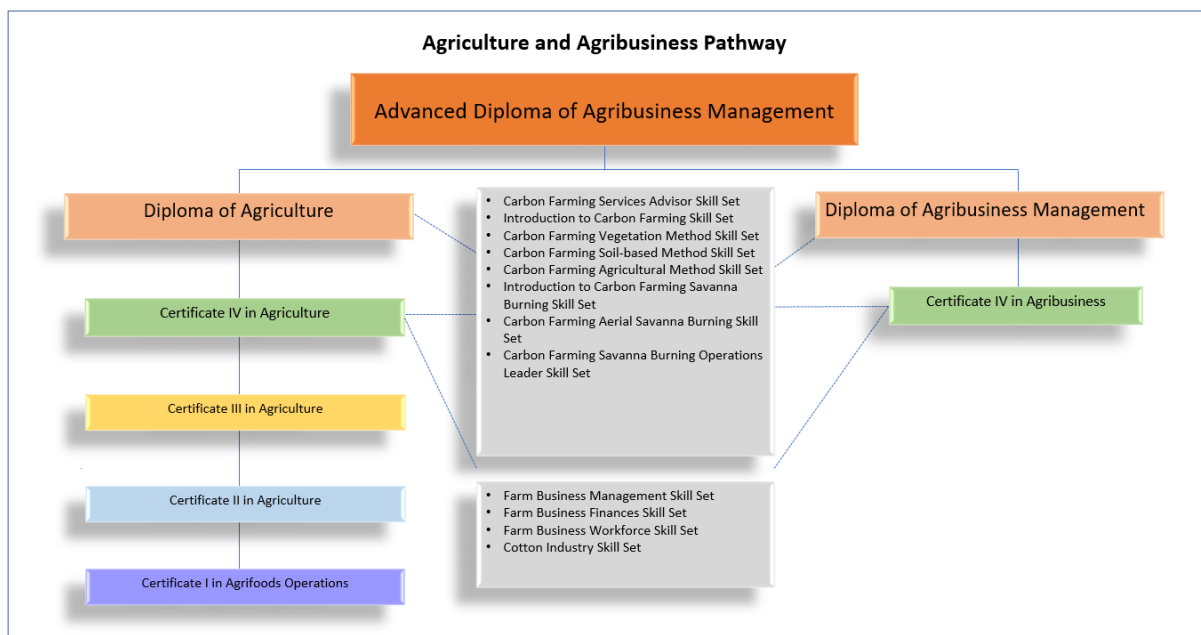
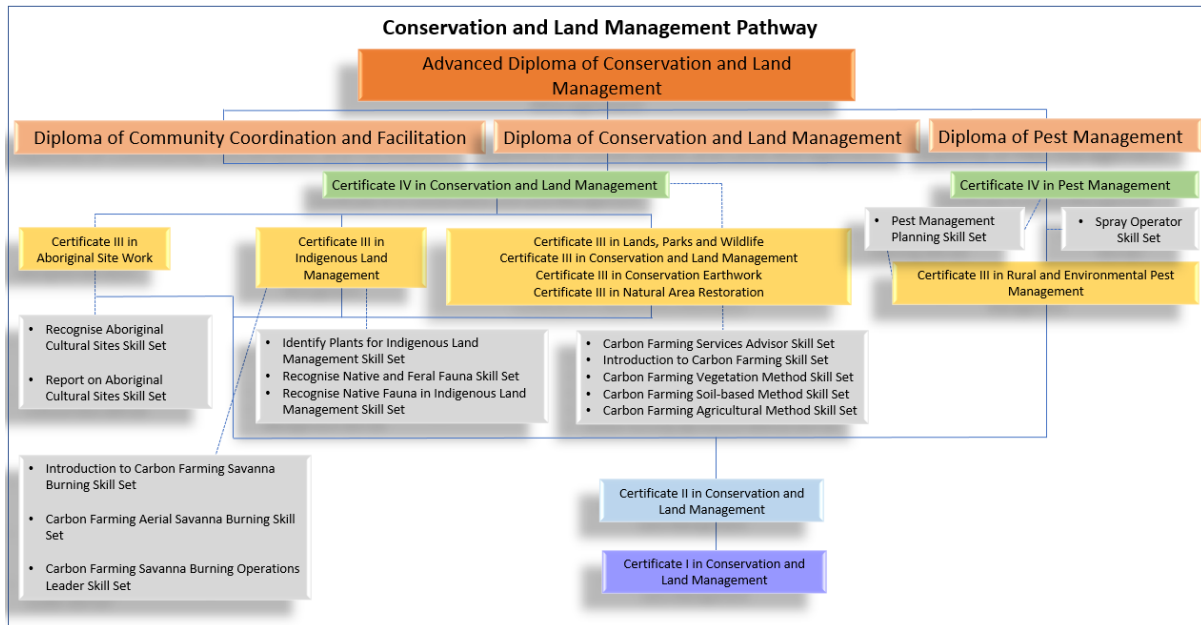
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<sup>10</sup> The Australian Apprenticeships website has information about traineeships and apprenticeships. Visit <[www.australianapprenticeships.gov.au](http://www.australianapprenticeships.gov.au)> for more information. STA contact details are provided in the Links section of this Implementation Guide.

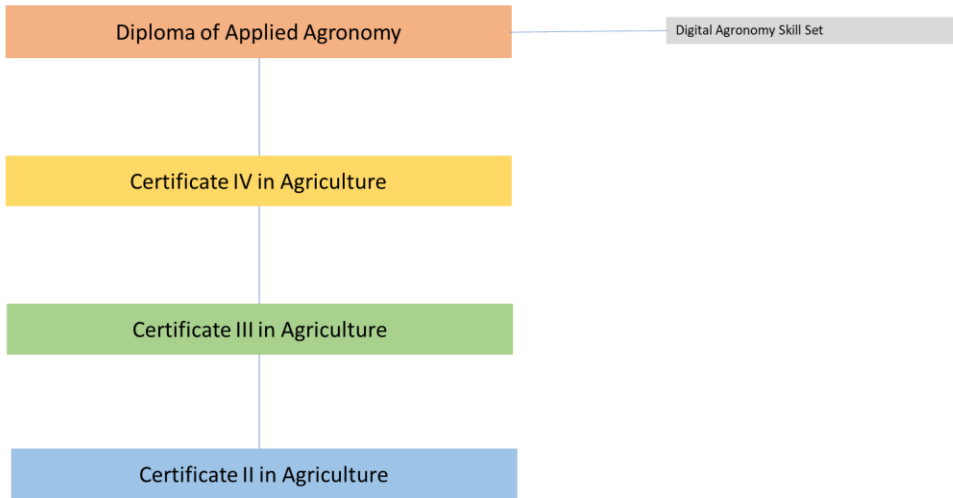
- Certificate II in Production Horticulture
- Certificate II in Nursery Operations
- Certificate II in Protected Horticulture
- Certificate II in Rural Operations
- Certificate II in Shearing
- Certificate II in Sports Turf Management
- Certificate II in Wool Handling
- Certificate III Beekeeping
- Certificate III in Conservation and Ecosystem Management
- Certificate III in Indigenous Land Management

## Progression between qualifications

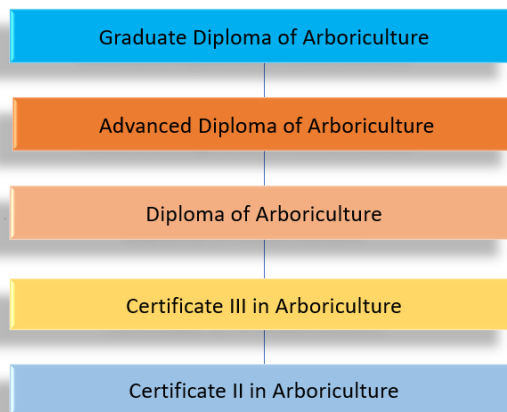
Qualifications have been designed to provide clear pathways. The following diagrams show the possible pathways into and from qualifications.



### Agronomy Pathway



### Arboriculture Pathway

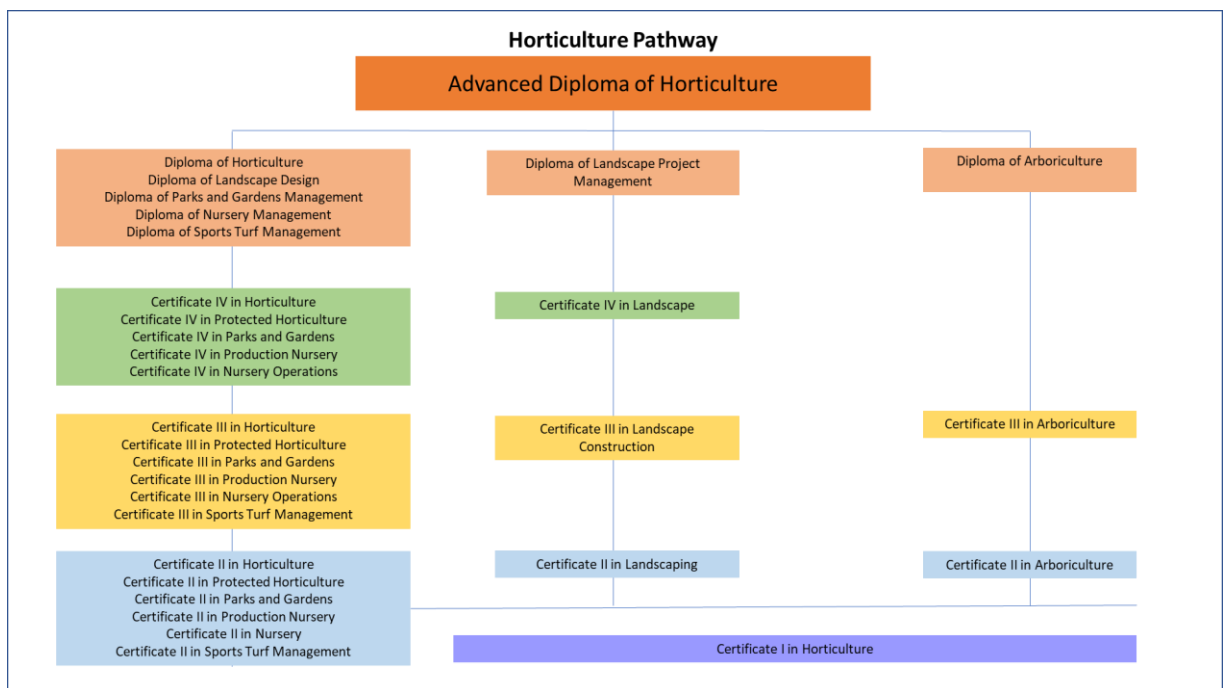
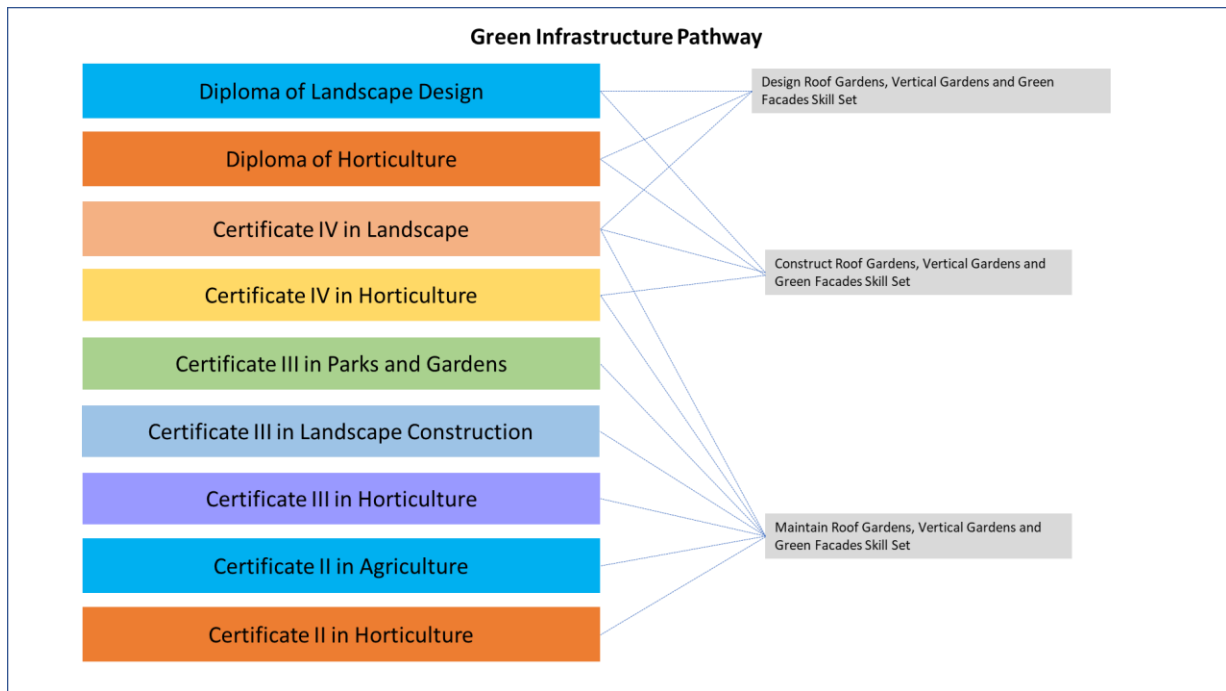


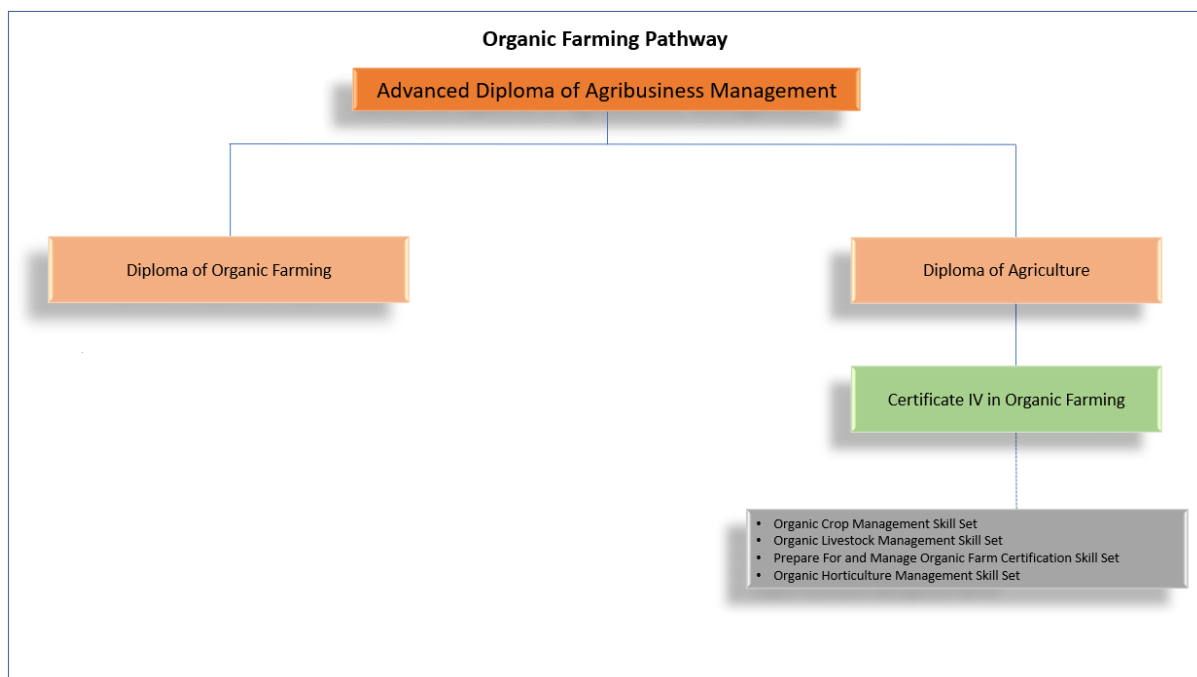
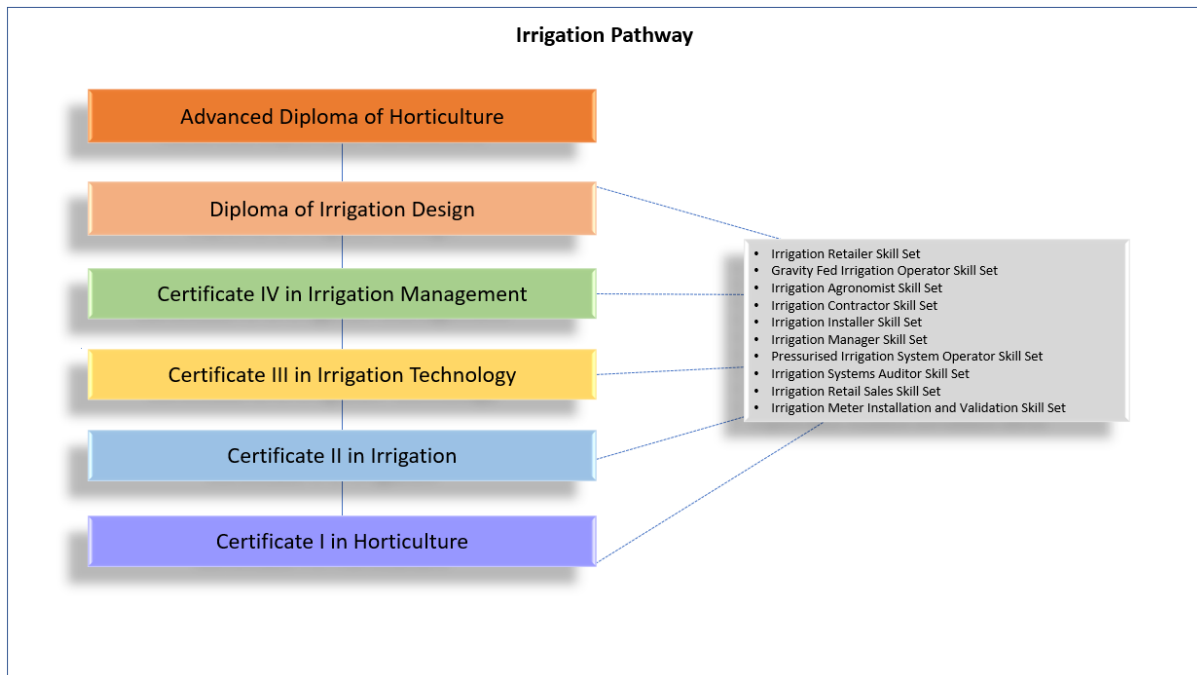
### Dairy Production Pathway

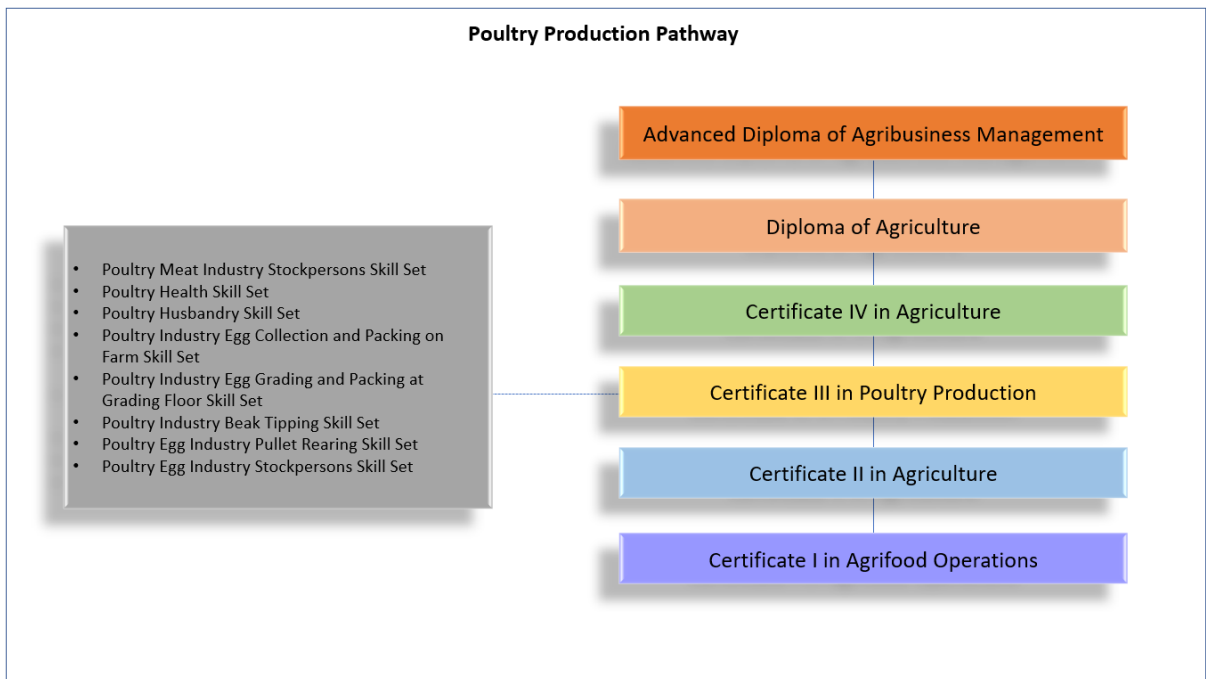
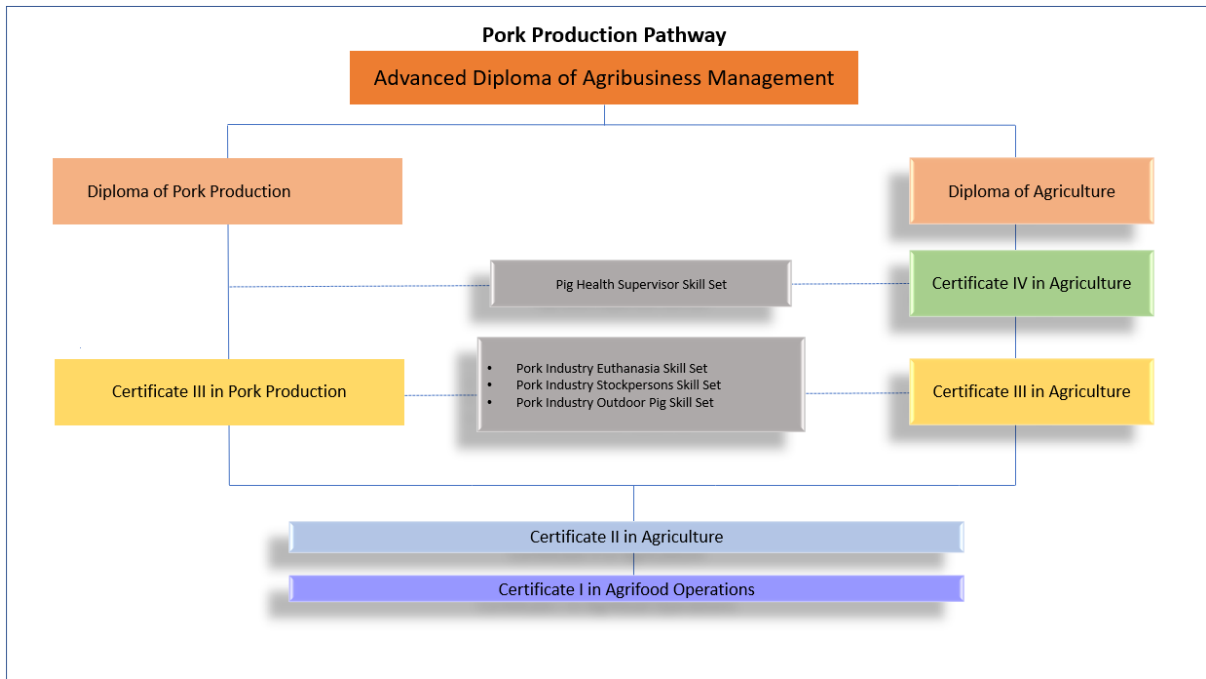


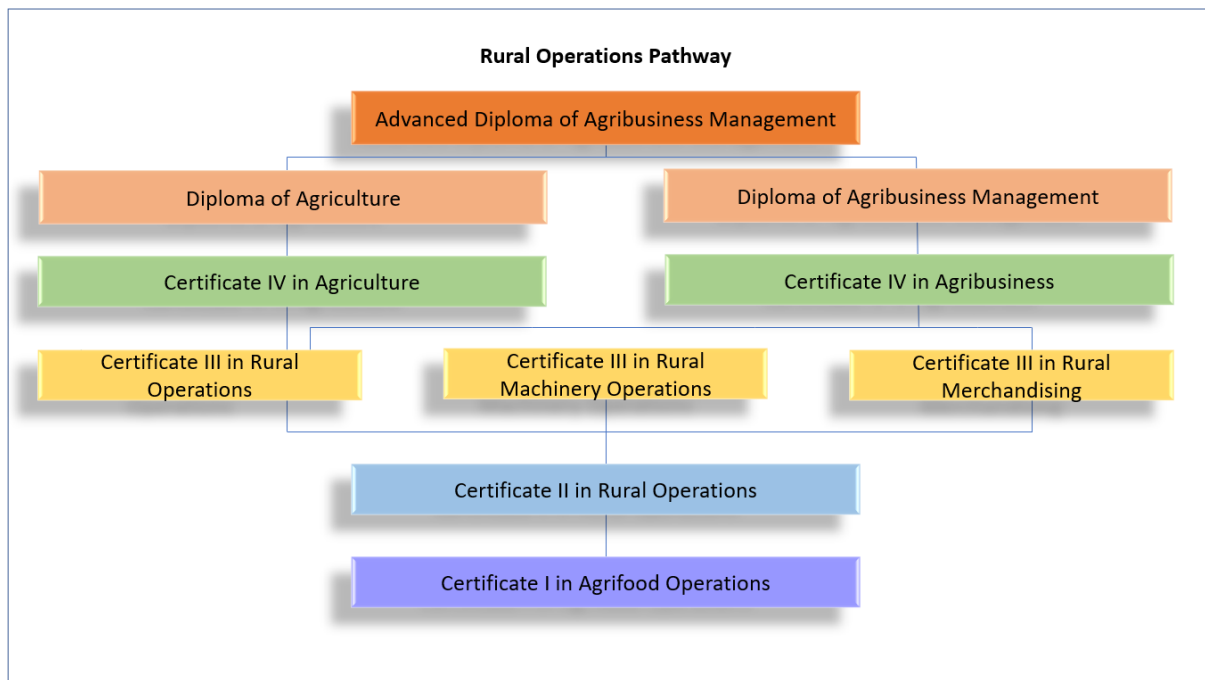
### Feedlot Pathway

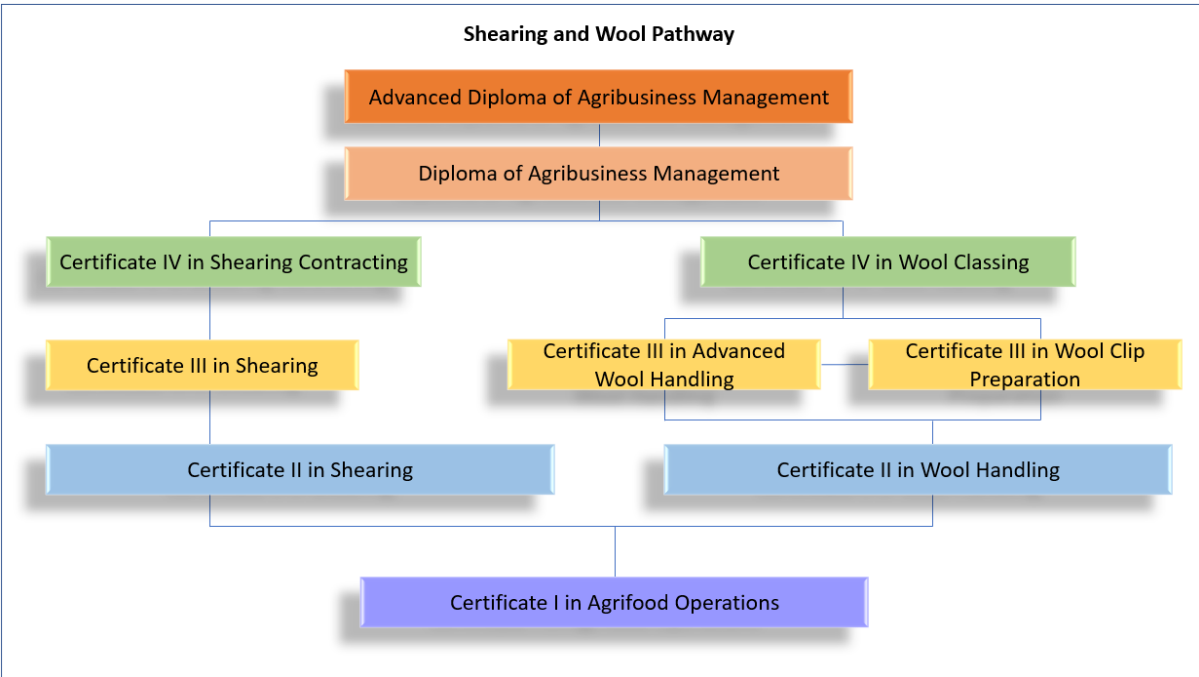


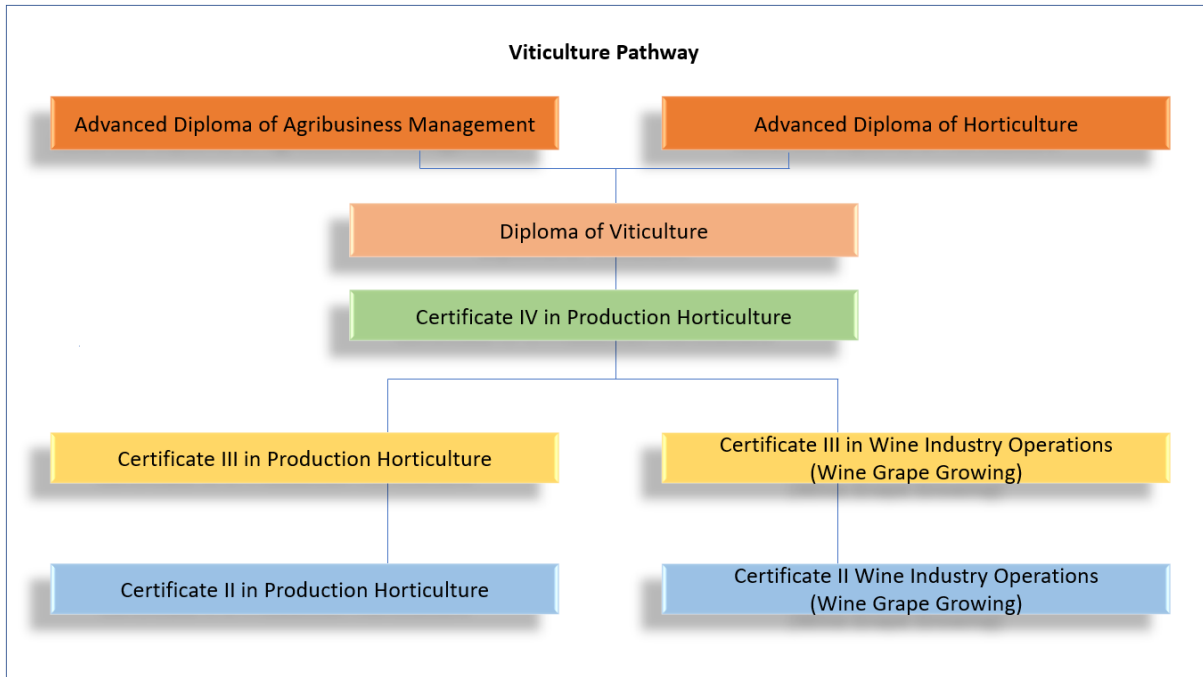












## Entry requirements for qualifications

Any specific entry requirements for qualifications in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* are included in each qualification. The entry requirements ensure an individual has the skills and knowledge required to undertake the qualification.

Qualification Code and Title	Entry Requirements
Certificate III in Shearing	Industry requirements for participation in <i>Certificate III in Shearing</i> is to demonstrate shearing skills and knowledge at <i>Certificate II in Shearing</i> level.
Diploma of Sports Turf Management	To commence this qualification an individual must have: <ul style="list-style-type: none"> <li>completed a Certificate III in Sports Turf Management or an equivalent turf management trade level qualification</li> <li>or</li> <li>a certificate III level qualification in amenity horticulture combined with two years current work experience in a trade level role at a sports turf facility.</li> </ul>
Diploma of Arboriculture	To commence this qualification an individual must have achieved the following units of competency or their equivalent: <ul style="list-style-type: none"> <li>AHCARB314 Implement a tree maintenance program</li> <li>AHCARB316 Perform pruning operations</li> <li>AHCARB323 Identify trees.</li> </ul>
Advanced Diploma of Arboriculture	Prior to commencing the qualification, an individual must have: <ul style="list-style-type: none"> <li>a diploma of arboriculture</li> <li>or</li> <li>a diploma or higher qualification in a field related to arboriculture* plus 2 years current work experience as a consulting arborist or a municipal tree manager.</li> </ul>
Graduate Diploma of Arboriculture	Prior to commencing the qualification, an individual must have: <ul style="list-style-type: none"> <li>an advanced diploma of arboriculture</li> <li>or</li> <li>an advanced diploma or higher qualification in a field related to arboriculture* plus 3 years current work experience as a consulting arborist or a municipal tree manager.</li> </ul>
AHC40620 Certificate IV in Nursery Operations	To commence this qualification, individuals must demonstrate they have skills and knowledge in the application of: <ul style="list-style-type: none"> <li>cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control</li> <li>technology and equipment that apply in a production nursery or retail nursery workplace</li> <li>health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace</li> </ul> <p>The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.</p>
AHC50820 Diploma of Nursery Management	To commence this qualification, individuals must demonstrate they have skills and knowledge in the application of:

	<ul style="list-style-type: none"> <li>• cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control</li> <li>• technology and equipment that apply in a production nursery or retail nursery workplace</li> <li>• health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace</li> <li>• The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.</li> </ul>
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## Entry requirements for the post trade qualifications in Arboriculture

### Diploma of Arboriculture

The entry requirements for *AHC50520 Diploma of Arboriculture* are three units from the Certificate III that provide a foundation of arborist skills and knowledge. The entry requirement has been added to ensure that prospective learners can successfully complete the Diploma. Industry experts advised that individuals must have attained enough practical tree skills and knowledge for them to be able to provide sound advice when employed as a Consultant or Tree Manager. This concern was also reflected in the Case for Change that states “arborists are not regulated, and so certified companies are losing business to inadequately qualified traders, whose lack of knowledge undermines the industry and can be harmful to trees, plants and the wider environment.”

The industry is keen to attract people from related sectors such as Amenity Horticulture and Forestry, and industry experts warned of the dangers of allowing people without sufficient tree care experience to complete a Diploma and become self-employed consultants. The experts agreed that the following entry requirement would be sufficient to provide a sound foundation of arborist skills and knowledge prior to commencing the revised Diploma:

To commence this qualification an individual must have achieved the following units of competency or their equivalent:

- *AHCARB314 Implement a tree maintenance program*
- *AHCARB316 Perform pruning operations*
- *AHCARB323 Identify trees.*

It should be noted that the three units above are in the core of the revised Certificate III and have also been packaged in to the new *AHCSS00104 Introduction to Arboriculture Skill Set*. People undertaking this skill set from non-arboriculture backgrounds may choose to enrol in the Diploma or decide to complete the Certificate III prior to embarking on the Diploma. Whichever pathway an individual decides to take, industry will have the confidence that these individuals have the necessary skills and experience to be competent consultants or tree managers.

### Advanced Diploma of Arboriculture and Graduate Diploma of Arboriculture

These qualifications build on specialist skills and knowledge acquired through learning and experience from working in the arboriculture industry. Without this knowledge and experience the prospective student would not have sufficient understanding of the complexities of arboriculture work to complete this qualification.

As of July 2019, there have been no enrolments in the existing *AHC60516 Advanced Diploma of Arboriculture* and *AHC80116 Graduate Diploma of Arboriculture* since their release in 2016, largely due to the restrictive structure and rigid wording of the entry requirement in each qualification. Industry experts advised that industry practitioners have expressed a need for these qualifications. For example, the University of Melbourne offers a Graduate Certificate in Arboriculture that has been

running successfully for almost a decade, with at least 35 enrolments per year. In comparison to the AHC level 6 and 8 arboriculture qualifications, the entry requirements for the university's Graduate Certificate in Arboriculture are very flexible.

Therefore, a major change to the revised Advanced Diploma of Arboriculture and Graduate Diploma of Arboriculture has been to make the entry requirements more flexible. As advised by the industry experts, the entry requirements for the revised Advanced Diploma are:

- a diploma of arboriculture  
or
- a diploma or higher qualification in a field related to arboriculture plus 2 years current work experience as a consulting arborist or a municipal tree manager.

As advised by the SMEs, the entry requirements for the revised Graduate Diploma are:

- an advanced diploma of arboriculture  
or
- an advanced diploma or higher qualification in a field related to arboriculture plus 3 years current work experience as a consulting arborist or a municipal tree manager.

\* **A field related to arboriculture**, for the purpose of the entry requirements of both qualifications, includes, but is not limited to: agronomy, arboriculture, biology, biomechanics, botany, conservation and land management, ecology, economics, engineering, entomology, environmental science, forestry, landscape architecture, mycology and soil science.

### Entry requirements for the Diploma of Sports Turf Management

The Sports turf industry is a specialised sector of the Horticulture industry. Prior to commencing the Diploma, industry expects individuals to possess practical understanding of working safely with sports turf machinery, tools and equipment, as well as experience in the application of the science of horticulture at a technical level for growing and maintaining sports turf. This prior knowledge and experience will help ensure individuals enrolling in the Diploma are able to transition and extend these applied skills and knowledge into the effective design and development of sports turf management activities.

In recognition of various pathways to competence, the entry requirements in AHC51019 Diploma of Sports Turf Management have been relaxed to allow entry to individuals with “a certificate III level qualification in amenity horticulture combined with two years current work experience in a trade level role at a sports turf facility”.

The following qualifications do not have entry requirements but do have recommendations:

Qualification Code and Title	Entry Requirements
Certificate III in Aboriginal Sites Work	It is recommended that applicants should seek the endorsement of their local Aboriginal community and local Aboriginal leadership when enrolling in this Qualification
Certificate III in Seed Testing	It is recommended that applicants should be working under supervision in a seed testing laboratory

### Entry requirements for the Certificate IV in Nursery Operations

The job roles for this qualification require an individual to be able to provide technical support and supervise technical staff. This requires the individual to have underpinning technical skills in order to successfully undertake the qualification. As such it is critical that an individual has the skills and knowledge in the application of:

- • cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control
- • technology and equipment that apply in a production nursery or retail nursery workplace

- health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace

The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.

### **Entry requirements for the Diploma of Nursery Management**

The job roles for this qualification require an individual to be able to provide technical support and manage technical staff. This requires the individual to have underpinning technical skills in order to successfully undertake the qualification. As such it is critical that an individual has the skills and knowledge in the application of:

- cultivating, growing and harvesting/production skills for a variety of plant types, including pest and disease control
- technology and equipment that apply in a production nursery or retail nursery workplace
- health and safety, pest management and biosecurity processes and regulations that apply in a production nursery or retail nursery workplace

The skills and knowledge may have been acquired through completion of a Certificate III or higher qualification relating to nursery or horticulture, or industry experience.

### **Selecting electives to enable different occupational outcomes**

Qualifications include elective units that should be selected according to the needs of the learner. The choice of elective units may be negotiated between the learner and/or employer, and the RTO conducting the training program.

Some qualifications allow electives to be selected from within the training package, and also from other training packages and accredited courses. Wherever they are selected from, elective units should provide a vocational focus for the qualification and be relevant to the:

- AQF qualification level
- job role
- work outcomes
- local industry needs
- area of specialisation (if required).

### **Choosing electives**

Electives should be chosen through collaboration with the learner, the RTO and the employer to suit current or future employment needs. The packaging rules must always be followed, but within the rules there may be flexibility to choose electives from beyond the electives listed and outside of the qualification and the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package*. However, the electives chosen must always be relevant to the overall vocational outcome of the qualification, and unless it is stated otherwise, it is possible to select units with an AQF identifier within one AQF level, up or down, of the qualification being undertaken.

### **Mandatory requirements for specialisations**

Some qualifications in the *Agriculture, Horticulture and Conservation and Land Management Training Package* have been designed to allow specialisations. The area of specialisation can be included on a testamur to certify attainment of an AQF qualification as shown in the example.

This is to certify that  
 John Smith  
 has fulfilled the requirements for  
 AHC30318 Certificate III in Rural and Environmental Pest Management  
 (Weed Controller)

### Choosing electives for specialisations

Qualification	Specialisation	Mandatory elective choices
AHC30318 Certificate III in Rural and Environmental Pest Management	Pest animal controller	<ul style="list-style-type: none"> <li>▪ AHCFUA201 Recognise fauna</li> <li>▪ AHCPMG304 Use firearms to humanely destroy animals</li> <li>▪ AHCPMG307 Apply animal trapping techniques</li> <li>▪ AHCPMG309 Apply pest animal control techniques</li> <li>▪ AHCPMG312 Apply poison baits for vertebrate pest control in rural and environmental landscapes, plus,</li> <li>▪ 1 unit from elective groups C or E, plus,</li> <li>▪ 2 units from electives in groups C and E or any currently endorsed Training Package or accredited course packaged at Certificate II, III or IV</li> </ul>
AHC30318 Certificate III in Rural and Environmental Pest Management	Weed Controller	<ul style="list-style-type: none"> <li>▪ AHCPM303 Identify plant specimens</li> <li>▪ AHCPMG301 Control weeds</li> <li>▪ AHC BIO201 Inspect and clean machinery for plant, animal and soil material, plus,</li> <li>▪ 3 units must be selected from the elective group D or E, plus,</li> <li>▪ 2 units must be selected from remaining group D or E or any currently endorsed Training Package or accredited course packaged at Certificate II, III or IV</li> </ul>

Qualification	Specialisation	Mandatory elective choices
AHC30820 Certificate III in Arboriculture	Climbing specialist	<ul style="list-style-type: none"> <li>▪ AHCARB317 Dismantle trees</li> <li>▪ AHCARB318 Undertake aerial rescue</li> <li>▪ AHCARB319 Use arborist climbing techniques</li> </ul>
AHC30820 Certificate III in Arboriculture	Crane specialist	<ul style="list-style-type: none"> <li>▪ AHCARB317 Dismantle trees</li> <li>▪ AHCARB324 Use cranes to access and dismantle trees</li> <li>▪ CPCCDO3011A* Perform dogging</li> </ul>
AHC30820 Certificate III in Arboriculture	Elevated Work Platform Specialist	<ul style="list-style-type: none"> <li>▪ AHCARB317 Dismantle trees</li> <li>▪ TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</li> <li>▪ UETDRRF03B* Perform EWP rescue</li> <li>▪ UETDRRF08B Perform EWP controlled descent escape</li> </ul>
AHC30820 Certificate III in Arboriculture	Environmental arborist (habitat protection and creation)	<ul style="list-style-type: none"> <li>▪ AHCARB325 Manage trees to create and maintain habitat refuges</li> <li>▪ AHCFAU201 Recognise fauna</li> <li>▪ AHCLPW304 Carry out inspection of designated area</li> <li>▪ AHCNAR202 Maintain wildlife habitat refuges</li> </ul>
AHC30820 Certificate III in Arboriculture	Arborist works coordinator	<ul style="list-style-type: none"> <li>▪ AHCARB407 Supervise and audit tree operations</li> <li>▪ AHCARB408 Perform ground based tree defect evaluation</li> <li>▪ AHCARB409 Conduct a safety audit</li> </ul>

Qualification	Specialisation	Mandatory elective choices
AHC20320 Certificate II in Production Horticulture	Horticulture	<ul style="list-style-type: none"> <li>▪ At least 3 of the following:</li> <li>▪ AHCCHM201 Apply chemicals under supervision</li> <li>▪ AHCMOM203 Operate basic machinery and equipment</li> <li>▪ AHCPTH214 Support horticultural crop harvesting</li> <li>▪ AHCPTH215 Plant horticultural crops</li> <li>▪ AHCPTH218 Carry out post-harvest operations</li> <li>▪ AHCSOL203 Assist with soil or growing media sampling and testing</li> <li>▪ AHCWRK209 Participate in environmentally sustainable work practices</li> <li>▪ FBPFYSY2001 Implement the food safety program and procedures</li> </ul>
	Floriculture	<ul style="list-style-type: none"> <li>▪ At least 3 of the following:</li> <li>▪ AHCNSY205 Pot up plants</li> <li>▪ AHCNSY206 Care for nursery plants</li> <li>▪ AHCNSY207 Undertake propagation activities</li> <li>▪ AHPCPM204 Recognise plants</li> <li>▪ AHCPTH214 Support horticultural crop harvesting</li> <li>▪ AHCPTH215 Plant horticultural crops</li> <li>▪ AHCPTH217 Undertake field budding and grafting</li> <li>▪ AHCPTH218 Carry out post-harvest operations</li> <li>▪ AHCSOL203 Assist with soil or growing media sampling and testing</li> <li>▪ AHCWRK209 Participate in environmentally sustainable work practices</li> </ul>

Qualification	Specialisation	Mandatory elective choices
AHC20720 Certificate II in Nursery Operations	Nursery Production	<ul style="list-style-type: none"> <li>▪ At least 4 of the following:</li> <li>▪ AHCCHM201 Apply chemicals under supervision</li> <li>▪ AHCIRG221 Assist with pressurised irrigation operations</li> <li>▪ AHCNSY205 Pot up plants</li> <li>▪ AHCNSY207 Undertake propagation activities</li> <li>▪ AHCPMG201 Treat weeds</li> <li>▪ AHCPMG202 Treat plant pests, diseases and disorders</li> <li>▪ AHCSOL203 Assist with soil or growing media sampling and testing</li> <li>▪ AHCWRK207 Collect and record production data</li> </ul>
	Retail Nursery	<ul style="list-style-type: none"> <li>▪ At least 4 of the following:</li> <li>▪ AHCNSY208 Maintain indoor plants</li> <li>▪ AHCPGD202 Prepare and maintain plant displays</li> <li>▪ SIRRINV001 Receive and handle retail stock</li> <li>▪ SIRXIND002 Organise and maintain the store environment</li> <li>▪ SIRXSLS001 Sell to the retail customer</li> </ul>

Qualification	Specialisation	Mandatory elective choices
AHC30620 Certificate III in Production Horticulture	Horticulture	<ul style="list-style-type: none"> <li>▪ At least 3 of the following:</li> <li>▪ AHCBIO302 Identify and report unusual disease or plant pest signs</li> <li>▪ AHCIRG346 Operate pressurised irrigation systems</li> <li>▪ AHCMOM304 Operate machinery and equipment</li> <li>▪ AHCPTH313 Implement a post-harvest program</li> <li>▪ AHCPTH314 Harvest horticultural crops mechanically</li> <li>▪ AHCPTH315 Establish horticultural crops</li> <li>▪ AHCPTH317 Coordinate horticultural crop harvesting</li> <li>▪ AHCWRK309 Apply environmentally sustainable work practices</li> </ul>
	Floriculture	<ul style="list-style-type: none"> <li>▪ At least 3 of the following:</li> <li>▪ AHCBIO302 Identify and report unusual disease or plant pest signs</li> <li>▪ AHCNSY308 Maintain nursery plants</li> <li>▪ AHCNSY309 Receive and dispatch nursery products</li> <li>▪ AHCPCM302 Provide information on plants and their culture</li> <li>▪ AHCPCM305 Implement a plant nutrition program</li> <li>▪ AHCSOL305 Prepare growing media</li> </ul>
AHC31120 Certificate III in Nursery Operations	Nursery Production	<ul style="list-style-type: none"> <li>▪ All 4 of the following:</li> <li>▪ AHCBIO305 Apply biosecurity measures</li> <li>▪ AHCIRG347 Maintain pressurised irrigation systems</li> <li>▪ AHCNSY309 Receive and dispatch nursery products</li> <li>▪ AHCNSY313 Implement a propagation plan</li> </ul>

Qualification	Specialisation	Mandatory elective choices
	Retail Nursery	<ul style="list-style-type: none"> <li>▪ All 4 of the following:</li> <li>▪ AHPCPM303 Identify plant specimens</li> <li>▪ BSBPRO301 Recommend products and services</li> <li>▪ SIRXCEG001 Engage the customer</li> <li>▪ SIRRMER001 Produce visual merchandising displays</li> </ul>
AHC31421 Certificate III in Conservation and Ecosystem Management	Indigenous Land Management	<ul style="list-style-type: none"> <li>▪ AHCECR301 Maintain native ecosystem area</li> <li>▪ AHCFIR301 Undertake burning for fuel, ecological and cultural management</li> <li>▪ AHCILM302 Provide appropriate information on cultural knowledge</li> <li>▪ AHCILM305 Work with Aboriginal Community or organisation</li> <li>▪ AHCILM306 Follow Aboriginal cultural protocols</li> <li>▪ AHCILM307 Implement Aboriginal cultural burning practices</li> <li>▪ AHCILM308 Identify traditional customs and land rights for an Indigenous Community</li> <li>▪ AHCWRK305 Coordinate work site activities</li> <li>▪ AHCWRK312 Operate in isolated and remote situations</li> <li>▪ SITTGDE001 Interpret aspects of local Australian Indigenous culture</li> </ul>
	Ecological Restoration	<ul style="list-style-type: none"> <li>▪ AHCECR301 Maintain native ecosystem areas</li> <li>▪ AHCECR302 Collect and preserve biological samples</li> <li>▪ AHCECR304 Undertake direct seeding</li> <li>▪ AHCECR305 Collect native seed</li> <li>▪ AHCECR307 Read and interpret maps</li> </ul>

Qualification	Specialisation	Mandatory elective choices
		<ul style="list-style-type: none"> <li>▪ AHCECR310 Implement assisted regeneration works</li> <li>▪ AHCECR311 Implement ecosystem reconstruction works</li> <li>▪ AHCLPW302 Implement a biodiversity monitoring plan</li> <li>▪ AHCPM302 Provide information on plants and their culture</li> <li>▪ AHCPM303 Identify plant specimens</li> <li>▪ AHCPMG301 Control weeds</li> <li>▪ AHCPMG302 Control plant pests, diseases and disorders</li> <li>▪ AHCSAW202 Recognise landforms and soil types</li> </ul>
	Land, Parks and Wildlife	<ul style="list-style-type: none"> <li>▪ AHCECR301 Maintain native ecosystem</li> <li>▪ AHCECR307 Read and interpret maps</li> <li>▪ AHCFAU302 Identify fauna in the field</li> <li>▪ AHCINF301 Implement property improvement, construction and repair</li> <li>▪ AHCINF303 Plan and construct conventional fencing</li> <li>▪ AHCLPW301 Supervise park visitor activities</li> <li>▪ AHCLPW302 Implement a biodiversity monitoring plan</li> <li>▪ AHCLPW303 Construct access tracks</li> <li>▪ AHCLPW304 Carry out inspection of designated area</li> <li>▪ AHCLPW308 Coordinate and report on data collection</li> <li>▪ AHCPM303 Identify plant specimens</li> <li>▪ AHCWRK305 Coordinate work site activities</li> <li>▪ AHCWRK309 Apply environmentally sustainable work practices</li> </ul>

Qualification	Specialisation	Mandatory elective choices
		<ul style="list-style-type: none"> <li>▪ FWPCOT3202 Navigate in remote or trackless areas</li> </ul>
	Conservation Earth Works	<ul style="list-style-type: none"> <li>▪ AHC BIO303 Apply biosecurity measures</li> <li>▪ AHCLPW303 Construct access tracks</li> <li>▪ AHCMOM302 Perform machinery maintenance</li> <li>▪ AHCMOM304 Operate machinery and equipment</li> <li>▪ AHCMOM314 Transport machinery</li> <li>▪ AHPCPM201 Recognise plants</li> <li>▪ AHCSAW202 Recognise landforms and soil types</li> <li>▪ AHCSAW301 Construct conservation earthworks</li> <li>▪ AHCSAW302 Implement erosion and sediment control measures</li> <li>▪ AHCSAW401 Set out conservation earthworks</li> <li>▪ AHCWRK311 Conduct site inspections</li> <li>▪ FWPCOT3258 Comply with soil and water protection</li> </ul>
	Pest controller	<ul style="list-style-type: none"> <li>▪ AHCPMG301 Control weeds</li> <li>▪ AHCPMG302 Control plant pests, diseases and disorders</li> <li>▪ AHCPMG304 Use firearms to humanely destroy animals</li> <li>▪ AHCPMG305 Survey pests</li> <li>▪ AHCPMG306 Determine pest control techniques</li> <li>▪ AHCPMG307 Apply animal trapping techniques</li> <li>▪ AHCPMG308 Implement pest management strategies</li> <li>▪ AHCPMG312 Apply poison baits for vertebrate pest control in rural and environmental landscapes</li> <li>▪ AHCPMG411 Ensure compliance with pest legislation</li> </ul>

Qualification	Specialisation	Mandatory elective choices
		<ul style="list-style-type: none"> <li>▪ AHCPMG414 Apply predator trapping techniques</li> </ul>
	Marine	<ul style="list-style-type: none"> <li>▪ AHCMAR301 Conduct a subtidal marine monitoring operation from a vessel or platform</li> <li>▪ AHCMAR302 Conduct intertidal marine monitoring</li> <li>▪ AHCMAR303 Coordinate marine conservation activities on small vessels</li> <li>▪ AHCMAR304 Identify and collect marine life</li> <li>▪ AHCMAR305 Monitor ocean conditions and marine environmental quality</li> <li>▪ MARC037 Operate inboard and outboard motors</li> <li>▪ MARF027 Apply basic survival skills in the event of vessel abandonment</li> <li>▪ MARF028 Follow procedures to minimise and fight fires on board a vessel</li> <li>▪ MARF030 Survive at sea using survival craft</li> <li>▪ MARN008 Apply seamanship skills aboard a vessel up to 12 metres</li> </ul>
	Fire	<ul style="list-style-type: none"> <li>▪ AHCFIR301* Undertake burning for fuel, ecological and cultural resource management</li> <li>▪ AHCILM307 Implement Aboriginal cultural burning practices</li> <li>▪ AHCMOM304 Operate machinery and equipment</li> <li>▪ AHCWRK302 Monitor weather conditions</li> <li>▪ FWPCOT3259 Operate a four wheel drive on unsealed roads</li> <li>▪ PUAFIR204* Respond to wildfire</li> <li>▪ PUAFIR215 Prevent injury</li> <li>▪ PUAFIR303* Suppress wildfire</li> </ul>

Qualification	Specialisation	Mandatory elective choices
		<ul style="list-style-type: none"> <li>▪ PUAFIR310 Operate specialist appliance</li> <li>▪ PUAFIR312 Operate aerial ignition equipment in an aircraft</li> </ul>
	Mined Land Rehabilitation	<ul style="list-style-type: none"> <li>▪ AHCECR301 Maintain native ecosystem areas</li> <li>▪ AHCECR304 Undertake direct seeding</li> <li>▪ AHCECR308 Conduct a site inspection for ecological restoration</li> <li>▪ AHCECR310 Implement assisted regeneration works</li> <li>▪ AHCFAU302 Identify fauna in the field</li> <li>▪ AHCILM305 Work with an Aboriginal Community or organisation</li> <li>▪ AHCMOM304 Operate machinery and equipment</li> <li>▪ AHCMOM315 Operate chemical application machinery and equipment</li> <li>▪ AHPCPM303 Identify plant specimens</li> <li>▪ AHPCPM201 Recognise plants</li> <li>▪ CPCCWHS1001 Prepare to work safely in the construction industry</li> <li>▪ CPPWMT3004 Comply with environmental protection requirements when transporting waste</li> <li>▪ RIICAR302D Rehabilitate small mine site</li> </ul>

Qualification	Specialisation	Mandatory elective choices
AHC40620 Certificate IV in Nursery Operations	Retail Nursery	<ul style="list-style-type: none"> <li>▪ At least 4 of the following:</li> <li>▪ AHCMER408 Coordinate customer service and networking activities</li> <li>▪ AHPCPM404 Recommend plants and cultural practices</li> <li>▪ AHCPGD401 Design plant displays</li> <li>▪ AHCSOL405 Provide information on fertilisers and soil ameliorants</li> <li>▪ SIRRINV002 Control stock</li> </ul>

## Training package delivery and assessment

RTOs must ensure that both training and assessment complies with the relevant standards<sup>11</sup>. In general terms, training and assessment must be conducted by individuals who:

- have the necessary training and assessment competencies
- have the relevant vocational competencies at least to the level being delivered or assessed
- can demonstrate current industry skills directly relevant to the training/assessment being delivered
- continue to develop their VET knowledge and skills, industry currency and trainer/assessor competence.

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Assessors of some units of competency may have to meet requirements in addition to those of the *Standards for Registered Training Organisations (RTOs) 2015/AQTF* requirements for assessors.

Check the *Assessment Conditions* section (provided in the assessment requirements that accompany each unit of competency) for specific assessor requirements.

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Some specific considerations in relation to the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* are summarised below

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<sup>11</sup> RTOs regulated by Australian Skills Quality Authority (ASQA) must comply with the Standards for Registered Training Organisations (RTOs) 2015. RTOs regulated by the Western Australian Training Accreditation Council (WA TAC) or the Victorian Registration and Qualifications Authority (VRQA) must check with their regulator for current requirements.

## Amount of training and volume of learning

RTOs must create a training and assessment strategy for delivery of AQF qualifications that reflects the complexity required of that qualification. An essential consideration in the training and assessment strategy is to ensure the amount of training provided is sufficient so that the learner can:

- meet the requirements of each qualification
- gain the skills and knowledge specified in the units of competency.

The amount of training involves all the formal learning activities provided to a learner, for example, classes, tutorials, field-work, lectures, online or self-paced study, as well as workplace learning.

Training should take into account the need to allow learners to reflect on and absorb the knowledge, to practise the skills in different contexts and to learn to apply the skills and knowledge in the varied environments that the 'real world' offers before being assessed.

AQF qualifications differ in terms of their complexity. The complexity of a qualification is defined by:

- the breadth and depth of the knowledge
- skills required
- application of knowledge and skills, and
- the AQF volume of learning.

The AQF volume of learning describes how long a learner, without any competencies identified in the qualification, would normally take to develop all the required skills and knowledge at that qualification level. The volume of learning includes all teaching, learning and assessment activities that are undertaken by the typical student to achieve the learning outcomes of the particular qualification.<sup>12</sup>

## Access and equity considerations

Training and assessment practices should minimise any barriers to training and assessment by considering the individual needs of learners. Some needs that could affect an individual's participation in training and assessment include:

- age
- gender
- cultural or ethnic background
- disability
- sexuality
- language, literacy or numeracy skills
- employment status
- geographical location.

While the design and content of this training package supports equitable access and progression for all learners, it is the responsibility of the RTO delivering and assessing qualifications to:

- ensure that training and assessment processes and methods do not disadvantage individual learners
- determine the needs of individual learners and to provide access to any educational and support services necessary.

Some practical ways that access and equity issues could be addressed include:

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<sup>12</sup> Information sourced from Australian Government, ASQA, *Fact Sheet: Determining the amount of training*, <<https://www.asqa.gov.au/news-publications/publications/fact-sheets/amount-training>> viewed April 2018:

- modifying assessment processes for learners who are located at a distance from a campus location
- checking that materials are culturally appropriate for learners and amending, as necessary
- making sure that activities and assessments are suitable for the language, literacy and numeracy skill levels of learners (while meeting the requirements of the unit of competency).

### **Reasonable adjustment for learners with disabilities**

A legislative framework underpins and supports the delivery of vocational education and training across Australia. Under this framework, RTOs must take steps to provide enrolled learners with recognised disabilities access to same training as learners without disabilities.

In some cases, 'reasonable adjustments' are made to the training environment, training delivery, learning resources and/or assessment tasks to meet the needs of a learner with a disability. An adjustment is 'reasonable' if it can accommodate the learner's particular needs, while also taking into account factors such as:

- the views of the learner
- the potential effects of the adjustment on the learner and others
- the costs and benefits of making the adjustment to the RTO.

Adjustments must:

- be discussed and agreed to by the learner with a disability
- benefit the learner with a disability
- maintain the competency standards
- be reasonable to expect in a workplace.<sup>13</sup>

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<sup>13</sup> The *Disability Standards for Education, 2005* and accompanying guidance notes can be downloaded at <http://education.gov.au/disability-standards-education>.

## Foundation skills in units of competency

Foundation skills are the 'non-technical skills' that individuals need so they can participate effectively in workplaces, in education and training, and in their communities.

Under the *Standards for Training Packages 2012*, training package developers must include foundation skills in units of competency, however, the method and format for doing this has not been prescribed.

In the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package* (and all training packages developed by Skills Impact) the foundation skills are shown in a table format as shown in the following example.

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"><li>Interpret information in workplace procedures and legislative documents</li></ul>
Writing	<ul style="list-style-type: none"><li>Record data and observations about livestock in workplace forms accurately and legibly</li></ul>
Oral communication	<ul style="list-style-type: none"><li>Use open and closed questions to gather information</li><li>Interpret verbal and non-verbal communication</li></ul>
Numeracy	<ul style="list-style-type: none"><li>Make calculations, including distance, area, volume and ratio</li></ul>

## Frameworks used

The foundation skills are derived from two national frameworks:

- The *Australian Core Skills Framework* (ACSF) is used to identify learning, language, literacy and numeracy (LLN) skills.
- The *Core Skills for Work Developmental Framework* (CSfW) is used to identify employability/employment skills.

The skills included in these two frameworks are summarised in the table below.

ACSF	CSfW	
Skills	Skills clusters	Skills or focus area
<ul style="list-style-type: none"> <li>▪ Learning</li> <li>▪ Reading</li> <li>▪ Writing</li> <li>▪ Oral Communication</li> <li>▪ Numeracy</li> </ul>	Navigate the world of work	<ul style="list-style-type: none"> <li>▪ Managing one's own career and work life</li> <li>▪ Understanding one's own work role, and the associated rights and obligations</li> </ul>
	Interact with others	<ul style="list-style-type: none"> <li>▪ Communicating in the workplace</li> <li>▪ Connecting and working with others</li> <li>▪ Recognising, respecting and using diverse perspectives</li> </ul>
	Get the work done	<ul style="list-style-type: none"> <li>▪ Planning and organising workplace tasks</li> <li>▪ Making decisions</li> <li>▪ Identifying and solving problems</li> <li>▪ Being creative and innovate</li> <li>▪ Working with digital systems/technologies</li> </ul>

The five skills from the ACSF are identified separately with descriptions explaining how the skill underpins the performance criteria. The three skill clusters from the CSfW are identified with descriptions explaining how the respective skill or focus area(s) underpin the performance criteria.

The foundation skills table in each unit:

- identifies applicable underpinning skills
- describes the application of each skill in the context of the performance criteria.

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Only those foundation skills that **ARE NOT** explicit in the performance criteria appear in the foundation skills mapping table.

The foundation skills are an integrated part of the unit for training and assessment purposes. Therefore, it is important that users look closely at both the foundation skills and the performance criteria, to make sure that **all** foundation skills are considered during delivery and assessment.

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## Key legislative implications for implementation

Regulatory or licensing requirements are identified in the *Application* field of units of competency and the *Qualification description* field in qualifications. If there are no particular requirements, then the statement 'No occupational licensing, legislative or certification requirements apply to this unit/qualification at the time of publication' will appear.

### Health and safety requirements

In general, health and safety requirements are addressed in specific work health and safety units of competency or embedded in particular units of competency in the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package*.

RTOs must make sure that delivery of health and safety content is contextualised to comply with the relevant legislation in the state/territory in which they are training. Details of state and territory regulators, together with some useful workplace health and safety organisations, have been included in the following tables.

### State/Territory Regulators

State/Territory	Regulating Body	Website
<b>Australian Capital Territory</b>	WorkSafe ACT	<a href="http://www.worksafe.act.gov.au">http://www.worksafe.act.gov.au</a>
<b>New South Wales</b>	SafeWork NSW	<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>
<b>Northern Territory</b>	NT WorkSafe	<a href="http://www.worksafe.nt.gov.au">http://www.worksafe.nt.gov.au</a>
<b>Queensland</b>	Workplace Health and Safety Queensland (WHSQ)	<a href="http://www.worksafe.qld.gov.au">http://www.worksafe.qld.gov.au</a>
<b>South Australia</b>	SafeWork SA	<a href="http://www.safework.sa.gov.au">http://www.safework.sa.gov.au</a>
<b>Tasmania</b>	WorkSafe Tasmania	<a href="http://worksafe.tas.gov.au">http://worksafe.tas.gov.au</a>
<b>Victoria</b>	WorkSafe Victoria	<a href="http://www.worksafe.vic.gov.au">http://www.worksafe.vic.gov.au</a>
<b>Western Australia</b>	WorkSafe WA	<a href="http://www.commerce.wa.gov.au/WorkSafe">http://www.commerce.wa.gov.au/WorkSafe</a>

## National organisations

Name	Function	Website
Safe Work Australia	Leads the development of national policy to improve work health and safety and workers' compensation arrangements across Australia.	<a href="http://www.safeworkaustralia.gov.au">http://www.safeworkaustralia.gov.au</a>
Comcare	The Comcare scheme provides rehabilitation and workers' compensation and occupational health and safety arrangements for Australian Government employees and for the employees of organisations which self-insure under the scheme.	<a href="http://www.comcare.gov.au">http://www.comcare.gov.au</a>
National Industrial Chemicals Notification and Assessment Scheme (NICNAS)	<p>NICNAS is the Australian Government regulator of industrial chemicals. NICNAS is responsible for:</p> <ul style="list-style-type: none"> <li>▪ providing a national notification and assessment scheme to protect the health of the public, workers and the environment from the harmful effect of industrial chemicals, and</li> <li>▪ assessing all chemicals new to Australia and those chemicals already used (existing chemicals) on a priority basis, in response to concerns about their safety on health and environmental grounds.</li> </ul>	<a href="http://www.nicnas.gov.au">http://www.nicnas.gov.au</a>

## Other legislative requirements

The industry operates under a range of acts, regulations and standards. Following is a summary of key requirements; however, users of this Implementation Guide are advised to check with the relevant regulatory authority as legislation is subject to change.

## Industry regulations and standards

### *Arboriculture*

The following statement is included in all the arboriculture qualifications and some arboriculture units of competency; "Legislation, regulations and by-laws relating to the treatment and removal of trees apply in some States and Territories". RTOs should check with the local regulatory bodies before undertaking tree work or tree removal.

The following is an example of a statement contained within the application of one of the arboriculture units of competency whereby; "The arboriculture industry requires that all tree work operations are undertaken according to "preferred industry practices (as outlined in the Companion Volume)."

The industry defines "preferred industry practices" as documented methods or techniques that have been generally accepted as superior to alternatives because they produce outcomes that are more effective while maintaining high standards of safety and care, and as a result, have become a standard way of undertaking work. They will often have undergone a complete current industry validation process and have a system and process in place for regular reviews to be conducted.

One method of ascertaining current best industry practices is to utilise published standards from reputable government and industry sources.

An example of a reputable published standard, which was examined and considered in the drafting of the Arboriculture qualifications and units, is the Minimum Industry Standard produced by the national peak industry body, Arboriculture Australia Ltd. This body has worked with industry organisations and experts in each state and territory to create and maintain current industry best practices, known as Minimum Industry Standards (MIS) for arboriculture industry work tasks and/or processes.

These MIS have been through an industry validation process involving review by subject matter experts and state and territory industry bodies and are an accurate representation of the minimum standard expected for a task. RTOs should ensure that their training and assessment strategies meet or exceed the level described in these standards, and that terminology and practices align with those described in the relevant MIS. These standards are a great educational resource for RTOs to develop training materials. More information is provided about the MIS in the Companion Volume User Guide: Arboriculture.

In addition, numerous Federal, State and Territory bodies publish standards covering arboriculture, and these should be examined at a local level. Safe Work Australia have published the Guide to Managing Risks of Tree Trimming and Removal Work. Some states and territories have bodies that have also published relevant standards. Where appropriate, Australian Standards have been referenced by their code in selected units of competency."

### *Regulation of genetically modified crops*

Genetically modified (GM) crops in Australia, including seeds, are regulated under the *Gene Technology Act 2000* (Cth.) through the Office of the Gene Technology Regulator. The regulatory policy seeks to protect the health and safety of both people and the environment. The regulator identifies risks posed by, or posed as a result of, gene technology, and manages these risks. This Act regulates all dealings with live and viable genetically modified organisms (GMOs) in Australia, including research, manufacture, import, production, propagation, transport and disposal of GMOs. There is also corresponding legislation in each state and territory.

### *Environmental regulations*

Most horticultural production systems are highly reliant on irrigation, fertilisers and pesticides. Laws governing environmental protection and management by horticultural producers include numerous federal, state and local Acts and regulations. Generally, these regulations relate to fertiliser and pesticide supply, handling, usage and storage; disposal of empty chemical containers and contaminated wastes; water usage; wastewater generation and the treatment of waste arising from production; biodiversity; and land and soil management.

National environmental legislation and regulations relevant to the industry include:<sup>14</sup>

- *Environment Protection and Biodiversity Conservation Act 1999* (Cth.)
- *Hazardous Waste (Regulation of Exports and Imports) Act 1989* (Cth.)
- *Ozone Protection and Synthetic Greenhouse Gas Management Act 1989* (Cth.)
- *Water Act 2007, Water Amendment Act 2008* (Cth.) and associated water regulations
- National Water Quality Management Strategy
- National Environment Protection (Assessment of Site Contamination) Measure
- Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000)
- Australian Drinking Water Guidelines (2011)
- Australia New Zealand Food Standards Code
- National Residue Survey
- National Environment Protection (Air Toxics) Measure.

State/territory government agencies regulate water usage via the allocation of water licences and dam management. They also decide on the timing and amount of water able to be accessed by irrigators. Water legislation focuses on developing efficient water usage for agriculture while limiting its environmental effect, particularly in the Murray–Darling Basin, which supports a large proportion of Australia’s fruit and vegetable crops.

#### *Food regulations*

Food Standards Australia New Zealand (FSANZ) establish standards relevant to the agriculture industry, particularly for poultry, meat, dairy, eggs and egg products, and seed sprout. FSANZ aims to strengthen food safety by reducing the incidence of foodborne illness associated with seed sprouts and eggs or egg products. In addition, dairy standards outline the implementation of documented food safety programs for primary dairy production and for the collection, transportation and processing of raw milk, as designed to protect public health across all jurisdictions.

The majority of fresh horticultural produce in Australia is grown under industry-based food safety schemes.<sup>15</sup> These schemes, and several state/territory regulations and guidelines, work to minimise risks linked to microbiological, chemical and physical factors that may be present in fresh produce for sale in Australia.

State/territory government regulations and guidelines follow.

- The *Food (Plant Products Food Safety Scheme) Regulation (2005)* (NSW) provides specific control measures to manage the safe production and supply of seed sprouts, fresh-cut fruit and vegetables, and juices.
- The *Food Production (Safety) Regulation (2014)* (QLD) sets out requirements for the transport and processing of fresh primary produce.
- The NSW Food Authority’s *Industry Guide for the Development of a Food Safety Program (High Priority Plant Products Industry)* (2005) covers seed sprouts, fresh-cut fruits and vegetables, unpasteurised juice, and vegetables in oil.

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<sup>14</sup> Horticulture for Tomorrow and Horticulture Australia Limited, 2014, Guidelines for Environmental Assurance in Australian Horticulture, viewed April 2017, <http://horticulturefortomorrow.com.au/manage/wp-content/uploads/2014/05/EnvironmentalAssurance-Guidelines-2014-full-version-2.pdf>.

<sup>15</sup> Food Standards Australia New Zealand, 2014, ‘Horticulture’, viewed April 2017, <http://www.foodstandards.gov.au/code/primaryproduction/horticulture/Pages/default.aspx>

- *Guidelines for On-Farm Food Safety for Fresh Produce* (2004) was published by the Australian Government Department of Agriculture, Fisheries and Forestry, now the Federal Department of Agriculture and Water Resources.

Industry food safety schemes in Australia include:

- HACCP Australia
- Freshcare
- GlobalGAP
- supermarket quality and food safety schemes.

#### *Landscape Construction and Design including Green infrastructure*

Licensing requirements for approval of designs and specifications and landscape construction work depending on the value of the work, and certification requirements of operators using specific plant and equipment varies across state and territory jurisdictions. For example, not all green infrastructure work, construction or maintenance, will require use of high-risk work equipment (such as working at heights, using elevating work platforms or scissor lifts, or be on a construction site requiring a White Card).

As these requirements will vary nationwide, a general licensing statement was placed in the skill sets and units stating the following:

“Licensing, legislative or certification requirements may apply to the work undertaken in this [unit/skill set] in some jurisdictions. Users are advised to check with the relevant regulatory authorities.”

This statement meets the need to satisfy any possible future regulatory/licencing changes.

#### *Grape growing legislation*

The Australian viticulture sub-sector is subject to a number of federal and state/territory laws and regulations, including the *Australian Grape and Wine Authority Act 2013* (Cth.) and the *Australian Grape and Wine Authority Regulations 1981* (Cth.). These Acts provide for, among other things, the Label Integrity Program and the Register of Protected Geographical Indications and Other Terms.

#### *Animal reproduction*

Registered Training Organisations are advised to check the legislative and regulatory requirements for units related to artificial insemination/animal reproduction. These units include statements such as the following from *AHCLSK338 Conduct dropped ovary technique procedures for spaying cattle*: “Regulatory requirements apply in some jurisdictions restricting the conduct of the DOT procedure to registered veterinarians. Users are advised to check with the relevant State or Territory regulatory authority.”

Note: A national accreditation scheme for cattle spayers is currently being finalised and will be implemented in Queensland in 2022. It is anticipated this accreditation scheme will be taken up by other states and territories once established. This accreditation scheme may impact the regulatory requirements of units related to artificial insemination/animal reproduction.

#### *Livestock management legislation*

The Department of Agriculture and Water Resources (DAWR) provides policies and legislation concerning aspects of livestock management and biosecurity, including live exports and supply of agricultural chemicals. DAWR is responsible for Australia’s livestock export licences, and regularly carries out inspections to ensure that biosecurity, traceability and animal welfare requirements are being met for both export-licensing and importing countries. DAWR also manages quarantine controls at borders and provides import and export inspection and certification.

In addition, state/territory governments are responsible for livestock management, disease response and welfare arrangements within their jurisdictions, in terms of both enforcing national standards and agreements and administering state/territory legislation.

Legislation relating to livestock management includes:<sup>16</sup>

- *Agricultural and Veterinary Chemicals (Control of Use) Act 1992* (VIC)
- *Agricultural and Veterinary Chemicals (Control of Use) Regulations 2007* (VIC)
- *Impounding of Livestock Act 1994* (VIC)
- *Impounding of Livestock Regulations 2008* (VIC)
- *Livestock Disease Control Act 1994* (VIC)
- *Livestock Disease Control Regulations 2006* (VIC)
- *Livestock Management Act 2010* (VIC)
- *Livestock Management Regulations 2011* (VIC).

#### *Australian ruminant feed ban*

Australia has an inclusive ban on the feeding of restricted animal material (RAM), including meat and bone meal (MBM) derived from all vertebrates including fish and birds, to all ruminant animals. An enforceable ban seeks to minimise the risk of spreading the infectious agent in mad cow disease, in the unlikely event that it is introduced to Australia. The ruminant feed ban is nationally coordinated by Animal Health Australia (AHA) and is part of a comprehensive national TSE Freedom Assurance Project. The prohibition and the program target livestock producers and other end users of manufactured stockfeed, retailers of manufactured stockfeed, and stockfeed manufacturers. Each Australian state/territory adopted the ruminant feed ban in legislation, indicating feeding prohibition and requirements for labelling and RAM content.

In addition, the industry implements the FeedSafe accreditation program through the Stock Feed Manufacturers' Council of Australia (SFMCA). To achieve FeedSafe accreditation, feed manufacturing sites are required to address the elements of the Code of Good Manufacturing Practice for the Feed Milling Industry, particularly methods to ensure effective cleaning, flushing and sequencing between different types of stockfeeds, to minimise the possibility of cross-contamination.

#### *Biosecurity legislation*

The Department of Agriculture and Water Resources is responsible for developing and reviewing biosecurity policies for the safe importation of animals and animal products. The Department will co-administer the new *Biosecurity Act 2015* (Cth.) with the Department of Health from 16 June 2016, replacing the *Quarantine Act 1908* (Cth.).

In addition, state/territory biosecurity agencies develop policy, standards, delivery systems and services that reduce the threat of invasive plants and animals to agriculture and the natural environment; protect animals and plants from pests and diseases; enhance food safety; ensure minimal and effective chemical use; protect the welfare of animals; and preserve and expand market access for primary industries.

#### *Live-animal export legislation*

Two bills were enforced in Australia to amend the *Australian Meat and Live-stock Industry Act 1997* (Cth.) and *Export Control Act 1982* (Cth.) in response to animal welfare concerns in the live-cattle export trade.

The *Live Animal Export Prohibition (Ending Cruelty) Bill 2014* (Cth.) and the *Live Animal Export (Slaughter) Prohibition Bill 2014* (Cth.) were introduced to prohibit the export of livestock for slaughter on or after 1 July 2017, and to compel export licence holders to ensure all live stock are treated satisfactorily prior to slaughter.

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<sup>16</sup> Agriculture Victoria, 2016, 'Livestock management', viewed April 2017, <http://agriculture.vic.gov.au/agriculture/farmmanagement/legal-information-for-victorian-landholders/livestock-management>

### Conservation legislation

Government-managed nature reserves, including marine reserves, and conservation parks are licensed and regulated by federal, state and territory environment and conservation departments under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth.) (EPBC) and the *National Parks and Wildlife Act 1975* (Cth.). The EPBC Act contains an extensive regimen for the conservation of biodiversity.

### Legislation relevant to agricultural chemical use

Context	Legislation
Commonwealth Government	Agricultural and Veterinary Chemicals Code Act 1994 ACT
Australian Capital Territory	Environment Protection Act 1997
New South Wales	Environmentally Hazardous Chemicals Act 1985
Northern Territory	Agricultural and veterinary chemicals (control of use) act
Queensland	Chemical Usage (Agricultural and Veterinary) Control Act 1988
South Australia	Agricultural and Veterinary Chemicals (South Australia) Act 1994
Tasmania	Tasmania Agricultural and Veterinary Chemicals Code Act 1994
Victoria	Agricultural and Veterinary Chemicals (Control of Use) Act 1992 Agricultural and Veterinary Chemicals (Control of Use) Regulations 2017 Agricultural and Veterinary Chemicals (Control of Use) (Fertilisers) Regulations 2013
Western Australia	Agricultural and Veterinary Chemicals (WA) Act 1995

### Legislation for beekeeping

Context	Legislation
Australian Capital Territory	Animal Diseases Act 2005 of the Australian Capital Territory Animal Diseases (Beekeeping) Amendment Act 2015
New South Wales	Apiaries Act 1985
Northern Territory	Livestock Act of the Northern Territory
Queensland	Apiaries Act 1982
South Australia	Livestock Act 1997 Apiaries Act 1931
Tasmania	Animal Health Act 1995
Victoria	Livestock Disease Control Act 1994
Western Australia	Beekeepers Act 1963 Biosecurity and Agriculture Management (Identification and Movement of Stock and Apiaries) Regulations 2013

## Legislation for pest animals and weeds

Context	Legislation
Commonwealth Government	Agricultural and Veterinary Chemicals Code Act 1994 Biological Control Act 1984 Environment Quarantine Act 1908 Environmental Protection and Biodiversity Conservation Act 1999
Australian Capital Territory	Pesticides Act 1989 under the Agricultural and Veterinary Chemicals (Administration) Act 1992 and Agricultural and Veterinary Chemicals (Code) Act 1994 Pest Plants and Animals Act 2005 Nature Conservation Act 2014 Animal Welfare Act 1992 Prohibited Weapons Act 1996 Firearms Act 1996 Environment Protection Act 1997
New South Wales	Biosecurity Act 2015 Game and Feral Animal Control Act 2002 Local Land Services Act 2013 National Parks and Wildlife Act 1974 Noxious Weeds Act 1993 Pesticides Act 1999 Pesticides Act 1999 Prevention of Cruelty to Animals Act 1979 Threatened Species Conservation Act 1995 Wild Dog Destruction Act 1921
Northern Territory	Territory Parks and Wildlife Conservation Act 2006 Animal Welfare Act Weeds Management Act
Queensland	Land Protection (Pest and Stock Route Management) Act 2002 Animal Care and Protection Act 2001 Nature Conservation Act 1992 Biosecurity Act 2014
South Australia	Animal Welfare Act 1985 Dog Fence Act 1946 National Parks and Wildlife Act 1972 Natural Resources Management Act 2004
Tasmania	Agricultural and Veterinary Chemical (Control of Use) Act 1995 Animal Welfare Act 1993 Cat Management Act 2009 Nature Conservation Act 2002 Poisons Act 1971 Vermin Control Act 2000 Weed Management Act 1999
Victoria	Agricultural and Veterinary Chemicals (Control of Use) Act 1992 Agricultural and Veterinary Chemicals (Control of Use) Act 1992

	Catchment and Land Protections Act 1994 Drugs, Poisons and Controlled Substances Act 1981 Firearms Act 1996 Flora and Fauna Guarantee Act 1988 National Parks Act 1975 Prevention of Cruelty to Animals Act 1986 (POCTA) Public Health and Wellbeing Act 2008 Wildlife Act 1975
Western Australia	Agriculture and Related Resources Protection Act 1976 Animal Welfare Act 2002 Biological Control Act 1986 Biosecurity and Agriculture Management Act 2007 Poisons Act 1964 Wildlife Conservation Act 1950

### Grain trade standards and legislation

Grain Trade Australia oversees standards for wheat and coarse grain trade in the domestic and international markets.

### International regulations and access to markets

To ensure access to European markets, Australian beef producers must follow a series of European Union regulations, laws and other rules governing beef cattle farming. These measures take the form of chain-of-custody certification involving cattle properties, feedlots and processors, and integrate the National Livestock Identification Scheme, which allows for the permanent identification of cattle using electronic microchips.

### Industry certification programs

The industry has developed and implemented integrity systems to verify and assure food safety and other quality attributes of livestock. Examples of industry certification programs include:

- Livestock Production Assurance, an on-farm food safety certification program for cattle, sheep and goats
- National Feedlot Accreditation Scheme, which encompasses animal health and welfare, environmental conservation, food safety and product integrity
- Australian Dairy Food Safety Scheme, which monitors compliance with food standards to ensure the integrity of the dairy supply chain
- Australian Pork Industry Quality Assurance Program, which provides standards for Australian pig producers
- Egg Corp Assured, a quality assurance program administered by the National Egg Corporation
- Q-Alpaca, a quality assurance program for voluntary use by Australian alpaca breeders and owners
- B-Qual, a voluntary program for apiarists and honey-processing businesses that ensures that the honey bee industry's standards meet best practice, and domestic and international market demands.
- FeedSafe, the quality assurance program for the Australian stockfeed industry
- Freshcare, the largest on-farm HACCP assurance program.

## Regulated occupations in the industry

Regulated occupations are bound by legal (or industry) requirements or restrictions to perform the work. Regulated occupations require a licence from, or registration by, a professional association or occupational licensing authority.

The industry does not have any specific trade-licensed occupations. However, it involves different professional accreditation structures overseen by industry bodies. For example, in Victoria, landscapers are required by the *Domestic Building Contracts Act 1995 (Vic)* to be registered with the state Building Practitioners Board in order to carry out large-scale structural landscaping. Qualifications include completion of Certificate III courses in landscape construction or horticulture.

Similarly, arborists do not need a licence to practise arboriculture in Australia, yet WorkCover, the Tree Contractors Association of Australia, Arboriculture Australia and the Local Government Tree Resources Association recommend that professional arborists meet several requirements. Arborists practising in Australia should represent a professional business, hold proper worker's compensation insurance, and have minimum qualifications of *Certificate II in Horticulture (Arboriculture)* for carrying out ground and climbing work, and *Certificate III in Horticulture (Arboriculture)* for supervising climbing work.

## Industry codes of practice

A number of codes of practice have been developed across the industry sub-sectors to set out industry standards of conduct, including the following:

- Horticulture Code of Conduct
- Growing Australian Grain
- Mandatory Port Access Code of Conduct for Grain Export Terminals
- Food and Grocery Code of Conduct
- The Animal Welfare Codes of Practice
- Australian Animal Welfare Standards and Guidelines (for cattle and sheep)
- RSPCA Approved Farming Scheme
- Australian Wine Industry Code of Conduct
- Code of Good Manufacturing Practice for the Feed Milling Industry
- The Australian Aquaculture Code of Conduct
- Code of Practice: Amenity Tree Industry (WorkCover)
- Model Code of Practice for the Welfare of Animals – Domestic Poultry
- National Farm Biosecurity Manual – Poultry Production
- Farm Biosecurity Manual for the Duck Meat Industry
- National Standard for Organic and Bio-Dynamic Produce.

### Codes of practice relevant to agriculture chemical use

Context	Code
Commonwealth Government	Managing risks of hazardous chemicals in the workplace - code of practice
Australian Capital Territory	Agricultural and Veterinary Chemicals Code - Australian Capital Territory
New South Wales	Code of practice managing risks of hazardous chemicals in the workplace
Northern Territory	Code of practice for handling pesticides
Queensland	Managing risks of hazardous chemicals in the workplace Code of Practice 2013
South Australia	Managing Risks of Hazardous Chemicals in the Workplace
Tasmania	Code of Practice for Aerial Spraying Code of Practice for Ground Spraying Code of Practice for Spraying in Public Places Code of Practice for Spraying in Public Places by means other than aerial spraying. Code of Practice for the Use of 1080 Poison
Victoria	AgVet Code of Victoria
Western Australia	Code of practice: use of agricultural and veterinary chemicals in W.A.

### Codes of practice for beekeeping

Context	Code
Commonwealth Government	The Australian honey bee industry biosecurity code of practice
Australian Capital Territory	Code of Practice for Beekeeping in Residential Areas of the ACT – 2016
New South Wales	Bee Biosecurity Code of Practice
Northern Territory	Northern Territory beekeepers biosecurity manual – Northern Territory Government
Queensland	Code of Practice for Urban Beekeeping in Queensland
South Australia	CFS Code of Practice – Apiary fire Safety (Draft for comment)
Tasmania	Code of Practice for Urban Beekeeping in Southern Tasmania Code of Practice Honey Bees and Pollination
Victoria	Apiary code of practice – Department of Planning and Community Development Victoria

### Codes of practice for pest animals and weeds

Context	Code
New South Wales	Humane pest animal control: Code of Practice and Standard Operating Procedures
Tasmania	Code of Practice for Ground Spraying
Victoria	Victorian Codes of Practice for Animal Welfare
Western Australia	Code of practice for the use of agricultural and veterinary chemicals in Western Australia

## Training and assessing environments

The Assessment Conditions section of the Assessment Requirements states whether assessment must take place in a real workplace or whether an environment that 'accurately represents workplace conditions' can be used.

An environment that accurately represents workplace conditions is one which offers real life working conditions with the actual characteristics of that working environment, including equipment, interactions with other people and completion of tasks within timeframes, if these are requirements of the working environment.

Sometimes conducting training and assessment in a real workplace is not possible or practical. If conducting training and assessment in a non-workplace environment, trainers and assessors must make sure that learners have opportunities to complete tasks:

- to the quality standards, and within the acceptable timeframes, required by the industry
- in a manner that meets the industry's safety standards.

## Legal considerations for learners in the workplace/on placements

Legal requirements that apply to specific sectors covered by this Training Package vary across each state and territory and can change from time to time. Contact the relevant state or territory authorities to check. STA contact details are provided in the Links section of this Implementation Guide. The Fair Work Ombudsman has some general guidelines and fact sheets about unpaid work.<sup>17</sup>

Work placements should always involve the appropriate supervision and guidance from individuals in the workplace and trainers and assessors from the RTO and must adhere to required legislation that applies in the jurisdiction e.g. learners must be supplied with the appropriate personal protective equipment (PPE) and training on how to use the PPE effectively prior to undertaking tasks that include health and safety risks.

## Resources and equipment lists

RTOs must make sure that all resources and equipment required to train and assess units of competency are available. Details of specific resources, including equipment and materials essential for assessment, are listed in the Assessment Conditions sections of Assessment Requirements documents. Where units of competency require assessment in the workplace, the workplace must include the full range of equipment required to do the task, as listed in the Assessment Conditions.

## Other information relevant to the implementation of the training package

### Machinery operation and maintenance units

Industry has provided the following advice for RTOs that deliver AHC31021 Certificate III in Parks and Gardens with regard to machinery operation and maintenance.

The use of equipment with two stroke engines for assessment of engine oil in AHCMOM304 Operate machinery and equipment.

The Range Statement requires that engine oil must be checked as part of the pre-operational checks. While 2 stroke engines do not generally have a sump containing engine oil, the fuel mixture does contain an amount of oil required to lubricate the engine. In order to comply with the range statement, it is essential that the individual being assessed should check that the oil and fuel mixture be correct according to the ratios specified in the manufacturer manual for the equipment.

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<sup>17</sup> Fair Work Ombudsman: < <http://www.fairwork.gov.au/how-we-will-help/templates-and-guides/fact-sheets/unpaid-work>>

It should also be noted that if only one piece of equipment is to be used for assessment and this equipment has a 2 stroke motor, that in order to comply with the Range Statement the 2 stroke engine must be used on one of the types of machinery/equipment listed.

Machinery without an internal combustion engine for AHCMOM203 Operate basic machinery and equipment and AHCMOM304 Operate machinery and equipment assessment.

Equipment that does not use an internal combustion engine such as, power take off, pneumatic, electrical, or battery operated machinery, won't meet all of the assessment requirements for pre-operational checks listed in the Range Statement. Additional equipment will be required to address those pre-operational check items not assessed.

Note: The unit Application explicitly states that 'This unit does not apply to chainsaws, tractors, vehicles, and earth moving equipment' as these types of equipment are deemed more specialised and are addressed in specific units of competency.

## Green Infrastructure

It is envisaged that units of competency *AHCGRI501 Design roof gardens*, *AHCGRI502 Design vertical walls and green facades*, *AHCGRI401 Construct roof gardens* and *AHCGRI402 Construct vertical gardens and green facades* and the related skill sets are undertaken by persons with experience in landscaping work, landscape design, horticulture and/or building and construction. Individuals must effectively communicate/consult with clients and relevant industry experts such as contractors, architects, engineers, growing media specialists and suppliers to determine such things as design and regulatory requirements for green infrastructure.

## Agronomy

It is envisaged that *AHC51920 Diploma of Applied Agronomy* would be delivered either off the job or on the job with access to the types of resources, machinery and equipment that are present in the typical agronomy workplace.

## Assessment requirements for Agribusiness and Business sectors

Prior to the release of AHC Version 4, the assessment requirements of several units of competency in Agribusiness sector (coded AHCAGB) and Business sector (coded AHCBUS) lacked specificity regarding the volume and frequency of performance evidence. The release of AHC Version 4 has addressed this issue, by updating and clarifying the detail in the Performance Evidence of all AHCAGB and AHCBUS units. The Performance Evidence of some revised units include details about the number of times tasks that should be performed, and other units specify the requirement to use records from a period of time, such as a financial quarter or a production period. Industry considered this to be an important part of the revised units, to ensure quality assessment outcomes specific to the work for job roles targeted at AQF levels 4, 5 and 6. Training organisations will need to ensure their assessments are updated to incorporate these requirements.

**Note:** Time periods specified relate to the type of work or activities that would be carried out in a business within that timeframe. They do not require the assessment to cover the actual time.

For example, the performance evidence of *AHCBUS406 Administer finance, insurance and legal requirements* requires evidence that the individual has administered the finance, insurance and legal requirements of a business covering a period of at least six months. The assessment for this unit should incorporate performance of tasks that utilise business data and activity for a six-month period. The assessment task does not need to cover six months of actual time. If this assessment is not carried out in a real workplace, the business data and activities should accurately represent real workplace data and records.

## Precision Agriculture Terminology

Precision Agriculture is an emerging terminology that broadly refers to agriculture technologies, which previously had been referred to individually (ie use of GNSS to monitor crop, or use of laser grids to uncover pests within crop). The use of Precision Agriculture seeks to unify technology terminology under one banner.

### **Sport Turf Management**

It is envisaged that training and assessment of many of the Sports Turf Management units (coded AHCTRF) will occur in the workplace, as these units require access to resources, materials and equipment that are present in a typical sports turf facility. The Assessment Conditions in the Assessment Requirements for each of these units of competency specifies these requirements. Due to the variety of subsectors in the industry, an individual undertaking the *Certificate III in Sports Turf Management* will need access to a variety of sports turf surfaces.

### **Arboriculture**

It is envisaged that training and assessment of many of the Arboriculture units (coded AHCARB) will occur in the workplace, as these units require access to resources, materials and equipment that are present in an arboriculture worksite. The Assessment Conditions in the Assessment Requirements for each of these units of competency specifies these requirements. More information is provided in the **Companion Volume User Guide: Arboriculture**.

### **Diploma of Pest Management**

Industry has provided the following advice for RTOs that deliver the *AHC51316 Diploma of Pest Management* concerning the selection of elective units.

Imported units:

- For agency staff and contractors who carry out Biosecurity Surveillance, it is highly recommended that the RTO imports *AHCBER402 Carry out field surveillance for a specific emergency disease or plant pest* from the *AHC41716 Certificate IV in Pest Management* as part of the elective option to meet the needs of this group.
- For agency pest and weed officers who are authorised under legislation to enforce legislation such as the Biosecurity Act 2015, it is highly recommended that *AHCNRM508 Investigate suspected breaches of Natural Resource Management legislation* is imported from the *AHC51116 Diploma of Conservation and Land Management*.

It is also highly recommended that the following Group B units are selected:

- *AHCPMG413 Define the pest problem*, as defining the pest problem is core to developing a pest management plan
- *AHCCCF505 Contribute to regional planning process*, as pest managers are required to engage in regional planning processes.

*AHCNRM602 Develop a monitoring, evaluation and reporting program* and *AHCNRM603 Implement a monitoring, evaluation and reporting program* from Group A are not deemed by industry as essential knowledge for pest managers, and therefore other Group A units should be considered before the selection of these two units.

## Training Package developer's quality assurance process for Companion Volumes

Companion Volumes are developed in consultation with industry representatives, trainers and assessors, members of Industry Reference Committees (IRCs) and their representatives. These key stakeholders provide and review content to ensure that information is relevant and useful.

The Companion Volumes undergo continuous improvement in response to feedback lodged on the Skills Impact website (<http://www.skillsimpact.com.au/contact/>).

## Links

### Agronomy

Organisation	Detail	Contact
Ag Excellence Alliance (Ag Ex)	Ag Ex was established in 2005 to help increase the viability of South Australian farmers through providing leadership and effective linkages between grower groups and key stakeholders.	<a href="https://agex.org.au">https://agex.org.au</a>
Australian Industry Group	A peak body representing employer organisations in traditional, innovative and emerging industry sectors.	<a href="http://www.aigroup.com.au">http://www.aigroup.com.au</a>
Australian Society of Agronomy	The Australian Society of Agronomy Inc. is the professional body for agronomists in Australia and New Zealand.	<a href="https://www.agronomyaustralia.org">https://www.agronomyaustralia.org</a>
Australian Workers Union (AWU)	The AWU represents blue-collar workers in the manufacturing, steel, aluminium, glass, oil & gas, aviation, agriculture, construction, state public services, local government, health, plastics, hospitality, food, paper, resources, aquaculture, events and racing industries.	<a href="https://www.awu.net.au">https://www.awu.net.au</a>
Birchip Cropping Group (BCG)	BCG is a not-for-profit agricultural research and extension organisation led by farmers from the Wimmera and Mallee regions of Victoria. BCG's research and communication activities provide evidence, support and tools for improving farm	<a href="https://www.bcg.org.au">https://www.bcg.org.au</a>

	management practices and profitability.	
Cotton Australia	Cotton Australia is the peak body for Australia's cotton producers, supporting more than 1200 cotton farming families in NSW, Queensland and now into Victoria.	<a href="https://cottonaustralia.com.au">https://cottonaustralia.com.au</a>
Crop Consultants Australia (CCA)	CCA is primarily an association for those that provide agronomic advice to cotton, grains, pulse and oilseed producers in Australia.	<a href="https://cropconsultants.com.au">https://cropconsultants.com.au</a>
FarmLink Research Limited (FarmLink)	FarmLink is a not for profit agricultural research and extension organisation in southern NSW owned by growers and involves advisers and researchers. FarmLink's main objective is to coordinate and communicate private, public and grower group funded research and development activities within in the region.	<a href="http://www.farmlink.com.au">http://www.farmlink.com.au</a>
Grain Producers Australia (GPA)	GPA represents Australia's broadacre, grain, pulse and oilseed producers at the national level. Broadly stated, GPA was created to foster a strong, innovative, profitable, globally competitive and environmentally sustainable grains industry in Australia.	<a href="https://www.grainproducers.com.au">https://www.grainproducers.com.au</a>
Hart Field-Site Group (Hart)	Hart is South Australia's premier agronomic field site, managed by farmers to provide independent information and skills to the broad-acre cropping industry.	<a href="http://www.hartfieldsite.org.au">http://www.hartfieldsite.org.au</a>

National Farmers' Federation (NFF)	A peak body representing farmers, and more broadly, agriculture across Australia.	<a href="http://www.nff.org.au">http://www.nff.org.au</a>
National Union of Workers (NUW)	The NUW empowers all workers to stand together – casual, permanent, part time or contract – and unite to improve their working lives and build stronger communities that can prioritise people and planet.	<a href="https://www.nuw.org.au">https://www.nuw.org.au</a>
NT WorkSafe	The work health and safety, dangerous goods, electrical safety, and rehabilitation and workers compensation division of the Northern Territory government.	<a href="http://www.worksafe.nt.gov.au">http://www.worksafe.nt.gov.au</a>
RMCG	RMCG is an environmental and agricultural consultancy, providing advice to government agencies, water authorities, institutions and private sector clients in the fields of environment, water, agriculture, economics and communities.	<a href="http://www.rmccg.com.au">http://www.rmccg.com.au</a>
SafeWork NSW	The New South Wales workplace health and safety regulator.	<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>
SafeWork SA	The South Australian work health and safety, public safety and worker relations regulator.	<a href="http://www.safework.sa.gov.au">http://www.safework.sa.gov.au</a>
Society of Precision Agriculture Australia (SPAA)	SPAA is Australia's leading independent precision agriculture research, development and extension organisation.	<a href="https://spaa.com.au">https://spaa.com.au</a>

Tasmanian Agricultural Productivity Group (TAPG)	TAPG was established in 1989 to provide advocacy around responsible regulation of pesticides in the agricultural sector. TAPG is in a unique position to address issues that are of common concern to primary, secondary and service levels of Tasmanian agriculture.	<a href="https://tapg.net">https://tapg.net</a>
Thomas Elder Institute (TEI)	TEI is Elders' research and development arm, comprising of key partnerships with industry bodies and education institutions. TEI aims to drive greater productivity for clients and the industry by bridging disconnect between research findings and practical application on-farm.	<a href="https://eldersrural.com.au/tech-services/thomas-elder-institute">https://eldersrural.com.au/tech-services/thomas-elder-institute</a>
VegetablesWA	VegetablesWA purpose is to assist vegetable growers, industry and government to maintain a profitable and sustainable vegetable industry.	<a href="https://www.vegetableswa.com.au">https://www.vegetableswa.com.au</a>
Workplace Health and Safety Queensland (WHSQ)	The Queensland work health and safety regulator.	<a href="http://www.worksafe.qld.gov.au">http://www.worksafe.qld.gov.au</a>
WorkSafe ACT	The Australian Capital Territory's health and safety and workers' compensation regulator.	<a href="http://www.worksafe.act.gov.au">http://www.worksafe.act.gov.au</a>
WorkSafe Tasmania	The Tasmanian workplace safety, health and return to work regulator.	<a href="http://worksafe.tas.gov.au">http://worksafe.tas.gov.au</a>

WorkSafe Victoria	The Victorian occupational health and safety regulator.	<a href="http://www.worksafe.vic.gov.au">http://www.worksafe.vic.gov.au</a>
WorkSafe WA	The Western Australia occupational safety and health regulator.	<a href="http://www.commerce.wa.gov.au/worksafe">http://www.commerce.wa.gov.au/worksafe</a>

### Green Infrastructure

Organisation	Detail	Contact
Australian Institute of Horticulture Inc	A peak body representing horticulturalists in Australia and Southeast Asia.	<a href="http://aih.org.au">http://aih.org.au</a>
CFMMEU	The main trade union representing workers in the construction, forestry, mining and energy industries	<a href="http://www.cfmmeu.org.au">http://www.cfmmeu.org.au</a>
Landscape Association	A peak body representing landscaping professionals in NSW and the ACT	<a href="https://www.landscapeassociation.com.au">https://www.landscapeassociation.com.au</a>
Landscape Industries Association WA	A not for profit membership association representing those involved in the landscape industry in WA	<a href="https://landscaping.net.au">https://landscaping.net.au</a>
Landscape Queensland	A peak industry body that represents the interests of Queensland's landscape and garden maintenance contractors, designers and suppliers of products and services	<a href="https://www.landscapequeensland.com.au">https://www.landscapequeensland.com.au</a>
Landscaping Victoria Master Landscapers	A professional association of commercial and residential landscape contractors, landscape designers, students, educators and landscape	<a href="https://www.landscapingvictoria.com.au">https://www.landscapingvictoria.com.au</a>

	service and product suppliers	
Master Builders Australia (MBA)	A peak body representing the building and construction industry	<a href="http://www.masterbuilders.com.au">http://www.masterbuilders.com.au</a>

## Arboriculture

Organisation	Detail	Contact
Arboriculture Australia	National peak body representing a broad spectrum of arborists across all state of Australia	<a href="http://arboriculture.org.au/">http://arboriculture.org.au/</a>
Australian Capital Tree Community	Peak body for Arborists in ACT	<a href="https://arboriculture.org.au/about-us/committees/australian-capital-tree-community">https://arboriculture.org.au/about-us/committees/australian-capital-tree-community</a>
Institute of Australian Consulting Arborists	IACA a national organisation for professional Consulting Arborists.	<a href="https://www.iaca.org.au/">https://www.iaca.org.au/</a>
Northern Territory Arboriculture Association	Established to promote professional Arboriculture and tree management throughout the Northern Territory.	<a href="https://arboriculture.org.au/about-us/committees/northern-territory-arboriculture-association#:~:text=The%20role%20of%20the%20Northern,the%20NTAA%20is%20in%20abeyance.">https://arboriculture.org.au/about-us/committees/northern-territory-arboriculture-association#:~:text=The%20role%20of%20the%20Northern,the%20NTAA%20is%20in%20abeyance.</a>
Queensland Arboricultural Association	An organisation representing arborists in Queensland with an aim to preserve, protect, maintain and enhance the value of trees	<a href="https://qaa.net.au/">https://qaa.net.au/</a>
Safe Work Australia (SWA)	SWA provides a guide on managing risks of tree trimming and removal work.	<a href="https://www.safeworkaustralia.gov.au/doc/guide-managing-risks-tree-trimming-and-removal-work">https://www.safeworkaustralia.gov.au/doc/guide-managing-risks-tree-trimming-and-removal-work</a>
Society of Municipal Arborists	A peak body representing municipal arborists	<a href="https://www.urban-forestry.com/">https://www.urban-forestry.com/</a>
South Australia Society of Arborists	SASA is a non-for-profit organisation of professional arborists	<a href="https://www.facebook.com/pg/South-Australian-Society-of-Arboriculture-407411203421891/about/?ref=page_internal">https://www.facebook.com/pg/South-Australian-Society-of-Arboriculture-407411203421891/about/?ref=page_internal</a>

Tasmanian Association of Arboriculture	Peak body for Arborists in ACT	<a href="https://arboriculture.org.au/about-us/committees/tasmanian-arboricultural-organisation#:~:text=The%20role%20of%20the%20Tasmanian,promote%20the%20value%20of%20trees.">https://arboriculture.org.au/about-us/committees/tasmanian-arboricultural-organisation#:~:text=The%20role%20of%20the%20Tasmanian,promote%20the%20value%20of%20trees.</a>
Tree Contractors Association of Australia	A peak body representing tree contractors whose mission is to promote professional tree services of safety, experience and trust	<a href="https://www.tcaa.com.au/">https://www.tcaa.com.au/</a>
The tree guild Western Australia	An organisation of tree contractors dedicated to improving the professionalism of the tree industry	<a href="http://treeguildwa.asn.au/">http://treeguildwa.asn.au/</a>
Utility Arborist Association Australia	A peak body for the utility arborists structured to represent utility arborists and vegetation managers	<a href="https://arboriculture.org.au/about-us/committees/UAAA-committee">https://arboriculture.org.au/about-us/committees/UAAA-committee</a>
Women in Arboriculture	Founded in 1999 as a sub-committee of the International Society of Arboriculture Australia (ISAAC)	<a href="https://arboriculture.org.au/about-us/committees/women-in-arboriculture-committee">https://arboriculture.org.au/about-us/committees/women-in-arboriculture-committee</a>

## Nursery Production and Production Horticulture

Organisation	Detail	Contact
Ag Excellence Alliance (Ag Ex)	Ag Ex was established in 2005 to help increase the viability of South Australian farmers through providing leadership and effective linkages between grower groups and key stakeholders.	<a href="https://agex.org.au">https://agex.org.au</a>
Australian Industry Group	A peak body representing employer organisations in traditional, innovative and emerging industry sectors.	<a href="http://www.aigroup.com.au">http://www.aigroup.com.au</a>

Australian Society of Agronomy	The Australian Society of Agronomy Inc. is the professional body for agronomists in Australia and New Zealand.	<a href="https://www.agronomyaustralia.org">https://www.agronomyaustralia.org</a>
Australian Workers Union (AWU)	The AWU represents blue-collar workers in the manufacturing, steel, aluminium, glass, oil & gas, aviation, agriculture, construction, state public services, local government, health, plastics, hospitality, food, paper, resources, aquaculture, events and racing industries.	<a href="https://www.awu.net.au">https://www.awu.net.au</a>
Birchip Cropping Group (BCG)	BCG is a not-for-profit agricultural research and extension organisation led by farmers from the Wimmera and Mallee regions of Victoria. BCG's research and communication activities provide evidence, support and tools for improving farm management practices and profitability.	<a href="https://www.bcg.org.au">https://www.bcg.org.au</a>
Bowen Gumlu Growers Association	The Bowen Gumlu Growers Association represents Australia's largest winter vegetable growing region, located in the Whitsunday region of North Queensland.	<a href="https://www.bowengumlugrowers.com.au">https://www.bowengumlugrowers.com.au</a>
Cotton Australia	Cotton Australia is the peak body for Australia's cotton producers, supporting more than 1200 cotton farming families in NSW, Queensland and now into Victoria.	<a href="https://cottonaustralia.com.au">https://cottonaustralia.com.au</a>
Crop Consultants Australia (CCA)	CCA is primarily an association for those that provide agronomic advice to cotton, grains, pulse and oilseed producers in Australia.	<a href="https://cropconsultants.com.au">https://cropconsultants.com.au</a>

FarmLink Research Limited (FarmLink)	FarmLink is a not for profit agricultural research and extension organisation in southern NSW owned by growers and involves advisers and researchers. FarmLink's main objective is to coordinate and communicate private, public and grower group funded research and development activities within in the region.	<a href="http://www.farmlink.com.au">http://www.farmlink.com.au</a>
Farm Machinery and Industry Association of WA (FMIA)	FMIA represents the farm mechanisation industry in Western Australia.	<a href="http://www.fmia.org.au">http://www.fmia.org.au</a>
Greenlife Industry Australia (formerly NGIA)	Greenlife Industry Australia is the peak industry body for businesses and organisations that provide products and services for greenlife production; produce, supply and retail greenlife or promote the benefits of and share greenlife with the community.	<a href="https://www.greenlifeindustry.com.au/">https://www.greenlifeindustry.com.au/</a>
Grain Producers Australia (GPA)	GPA represents Australia's broadacre, grain, pulse and oilseed producers at the national level. Broadly stated, GPA was created to foster a strong, innovative, profitable, globally competitive and environmentally sustainable grains industry in Australia.	<a href="https://www.grainproducers.com.au">https://www.grainproducers.com.au</a>
Hart Field-Site Group (Hart)	Hart is South Australia's premier agronomic field site, managed by farmers to provide independent information and skills to the broad-acre cropping industry.	<a href="http://www.hartfieldsite.org.au">http://www.hartfieldsite.org.au</a>

Hort Innovation	A grower-owned, not-for-profit research and development corporation for Australia's horticulture industry, Hort Innovation's primary function is creating value for horticulture growers and those across the horticulture supply chain.	<a href="https://www.horticulture.com.au/">https://www.horticulture.com.au/</a>
Irrigated Cropping Council (ICC)	ICC is a not-for-profit Organisation established in 1999. The constitutional objectives of the entity are focussed on advancing the understanding of the mixed farming sector commitment to innovative research.	<a href="https://www.irrigatedcroppingcouncil.com.au">https://www.irrigatedcroppingcouncil.com.au</a>
Irrigation Australia (IAL)	IAL is the peak national organisation representing the Australian irrigation industry in all sectors from water users, consultants, designers and installers through to educational institutions, government, manufacturers and retailers. IAL is also the Australian representative body of the International Commission on Irrigation and Drainage (ICID).	<a href="https://www.irrigationaustralia.com.au">https://www.irrigationaustralia.com.au</a>
National Farmers' Federation (NFF)	A peak body representing farmers, and more broadly, agriculture across Australia.	<a href="http://www.nff.org.au">http://www.nff.org.au</a>
National Irrigators' Council (NIC)	NIC is the voice of irrigators across Australia. The NIC was created in 2008 to represent the interests of irrigation entitlement holders across Australia.	<a href="https://www.irrigators.org.au">https://www.irrigators.org.au</a>
National Union of Workers (NUW)	The NUW empowers all workers to stand together – casual, permanent, part time or contract – and unite to improve their working lives and build stronger	<a href="https://www.nuw.org.au">https://www.nuw.org.au</a>

	communities that can prioritise people and planet.	
National Vegetable Extension Network (VegNET)	The aim of VegNET is to effectively communicate information to growers through 10 regionally-based extension projects, with coordination and support provided by Applied Horticultural Research.	<a href="http://ahr.com.au/news/vegnet/">http://ahr.com.au/news/vegnet/</a>
NT WorkSafe	The work health and safety, dangerous goods, electrical safety, and rehabilitation and workers compensation division of the Northern Territory government.	<a href="http://www.worksafe.nt.gov.au">http://www.worksafe.nt.gov.au</a>
Protected Cropping Australia (PCA)	PCA is the peak industry body representing commercial hydroponic and greenhouse growers Australia wide.	<a href="https://protectedcropping.net.au/">https://protectedcropping.net.au/</a>
Raspberries and Blackberries Australia (RABA)	RABA is a non-profit, incorporated association which represents all members national and aims to foster the continued innovation and development of skills to the advantage of all growers.	<a href="https://berries.net.au/">https://berries.net.au/</a>
Ricegrowers Association of Australia (RGA)	The RGA represents farmers in the main rice growing areas of New South Wales and Victoria.	<a href="http://www.rga.org.au">http://www.rga.org.au</a>
RMCG	RMCG is an environmental and agricultural consultancy, providing advice to government agencies, water authorities, institutions and private sector clients in the fields of environment, water, agriculture, economics and communities.	<a href="http://www.rmcb.com.au">http://www.rmcb.com.au</a>

SafeWork NSW	The New South Wales workplace health and safety regulator.	<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>
SafeWork SA	The South Australian work health and safety, public safety and worker relations regulator.	<a href="http://www.safework.sa.gov.au">http://www.safework.sa.gov.au</a>
Society of Precision Agriculture Australia (SPAA)	SPAA is Australia's leading independent precision agriculture research, development and extension organisation.	<a href="https://spaa.com.au">https://spaa.com.au</a>
Tasmanian Agricultural Productivity Group (TAPG)	TAPG was established in 1989 to provide advocacy around responsible regulation of pesticides in the agricultural sector. TAPG is in a unique position to address issues that are of common concern to primary, secondary and service levels of Tasmanian agriculture.	<a href="https://tapg.net">https://tapg.net</a>
Thomas Elder Institute (TEI)	<b>TEI</b> is Elders' research and development arm, comprising of key partnerships with industry bodies and education institutions. TEI aims to drive greater productivity for clients and the industry by bridging disconnect between research findings and practical application on-farm.	<a href="https://eldersrural.com.au/tech-services/thomas-elder-institute">https://eldersrural.com.au/tech-services/thomas-elder-institute</a>
VegetablesWA	VegetablesWA purpose is to assist vegetable growers, industry and government to maintain a profitable and sustainable vegetable industry.	<a href="https://www.vegetableswa.com.au">https://www.vegetableswa.com.au</a>

Workplace Health and Safety Queensland (WHSQ)	The Queensland work health and safety regulator.	<a href="http://www.worksafe.qld.gov.au">http://www.worksafe.qld.gov.au</a>
WorkSafe ACT	The Australian Capital Territory's health and safety and workers' compensation regulator.	<a href="http://www.worksafe.act.gov.au">http://www.worksafe.act.gov.au</a>
WorkSafe Tasmania	The Tasmanian workplace safety, health and return to work regulator.	<a href="http://worksafe.tas.gov.au">http://worksafe.tas.gov.au</a>
WorkSafe Victoria	The Victorian occupational health and safety regulator.	<a href="http://www.worksafe.vic.gov.au">http://www.worksafe.vic.gov.au</a>
WorkSafe WA	The Western Australia occupational safety and health regulator.	<a href="https://www.commerce.wa.gov.au/worksafe">https://www.commerce.wa.gov.au/worksafe</a>

## Beekeeping

Australian Honey Bee Industry Council (AHBIC)	The main role of the AHBIC is to protect and promote the Australian honey bee industry. Its members are made up of representatives of various sections of the beekeeping industry in Australia.	<a href="https://honeybee.org.au/">https://honeybee.org.au/</a>
Amateur Beekeepers Association of NSW	The ABA has 20 clubs/branches throughout NSW, providing information and support to over 1,600 amateur beekeepers. The support includes access to training, equipment and books.	<a href="https://www.beekeepers.asn.au">https://www.beekeepers.asn.au</a>
BeeAware	BeeAware is a website that provides information on beekeeping in Australia, and links to several state based beekeeping associations located in NSW, QLD, SA, TAS, VIC, and WA	<a href="http://beeaware.org.au/industry/beekeeping-associations/">http://beeaware.org.au/industry/beekeeping-associations/</a>

## Carbon Farming

Carbon Market Institute (CMI)	Carbon farming professional association	<a href="http://carbonmarketinstitute.org/about">http://carbonmarketinstitute.org/about</a>
Clean Energy Regulator	The Clean Energy Regulator was established in 2012, as an independent statutory authority by the Clean Energy Regulator Act 2011 and operates as part of the Environment portfolio.	<a href="http://www.cleanenergyregulator.gov.au">http://www.cleanenergyregulator.gov.au</a>
Emissions Reduction Fund	Through the Emissions Reduction Fund, the Australian Government will purchase lowest cost abatement (in the form of Australian carbon credit units) from a wide range of sources, providing an incentive to businesses, households and landowners to proactively reduce their emissions.	<a href="http://www.cleanenergyregulator.gov.au/ERF">http://www.cleanenergyregulator.gov.au/ERF</a>

## Medicinal cannabis

Medicinal Cannabis Industry Australia	The peak industry organisation for Australia's licensed medicinal cannabis industry	<a href="https://mcia.org.au">https://mcia.org.au</a>
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## Sales and Merchandising

Organisation	Detail	Contact
Australian Industry Group	A peak body representing employer organisations in traditional, innovative and emerging industry sectors.	<a href="http://www.aigroup.com.au">http://www.aigroup.com.au</a>
Australian Workers Union (AWU)	The AWU represents blue-collar workers in the manufacturing, steel, aluminium, glass, oil & gas, aviation, agriculture, construction, state public services, local government, health, plastics, hospitality, food, paper, resources, aquaculture, events and racing industries.	<a href="https://www.awu.net.au">https://www.awu.net.au</a>
Farm Machinery and Industry Association of WA (FMIA)	FMIA represents the farm mechanisation industry in Western Australia.	<a href="http://www.fmia.org.au">http://www.fmia.org.au</a>
Irrigation Australia (IAL)	IAL is the peak national organisation representing the Australian irrigation industry in all sectors from water users, consultants, designers and installers through to educational institutions, government, manufacturers and retailers. IAL is also the Australian representative body of the International Commission on Irrigation and Drainage (ICID).	<a href="https://www.irrigationaustralia.com.au">https://www.irrigationaustralia.com.au</a>
National Farmers' Federation (NFF)	A peak body representing farmers, and more broadly, agriculture across Australia.	<a href="http://www.nff.org.au">http://www.nff.org.au</a>

National Union of Workers (NUW)	The NUW empowers all workers to stand together – casual, permanent, part time or contract – and unite to improve their working lives and build stronger communities that can prioritise people and planet.	<a href="https://www.nuw.org.au">https://www.nuw.org.au</a>
NT WorkSafe	The work health and safety, dangerous goods, electrical safety, and rehabilitation and workers compensation division of the Northern Territory government.	<a href="http://www.worksafe.nt.gov.au">http://www.worksafe.nt.gov.au</a>
Rural Skills Australia (RSA)	RSA is a not-for-profit organisation that has worked over many years in conjunction with the National Farmers' Federation and its member bodies, and related industry bodies to foster improved rural and related industry involvement in structured education and training, with a view to enhancing the skills and capabilities of new entrants, existing workers and primary producers alike.	<a href="http://www.ruralskills.com.au">http://www.ruralskills.com.au</a>
SafeWork NSW	The New South Wales workplace health and safety regulator.	<a href="http://www.safework.nsw.gov.au">http://www.safework.nsw.gov.au</a>
SafeWork SA	The South Australian work health and safety, public safety and worker relations regulator.	<a href="http://www.safework.sa.gov.au">http://www.safework.sa.gov.au</a>
Workplace Health and Safety Queensland (WHSQ)	The Queensland work health and safety regulator.	<a href="http://www.worksafe.qld.gov.au">http://www.worksafe.qld.gov.au</a>

WorkSafe ACT	The Australian Capital Territory's health and safety and workers' compensation regulator.	<a href="http://www.worksafe.act.gov.au">http://www.worksafe.act.gov.au</a>
WorkSafe Tasmania	The Tasmanian workplace safety, health and return to work regulator.	<a href="http://worksafe.tas.gov.au">http://worksafe.tas.gov.au</a>
WorkSafe Victoria	The Victorian occupational health and safety regulator.	<a href="http://www.worksafe.vic.gov.au">http://www.worksafe.vic.gov.au</a>
WorkSafe WA	The Western Australia occupational safety and health regulator.	<a href="https://www.commerce.wa.gov.au/worksafe">https://www.commerce.wa.gov.au/worksafe</a>

## Sports Turf Management

Australian Golf Course Superintendents Association	The Australian Golf Course Superintendents' Association (AGCSA) was formed in 1981 to further the profession of Golf Course and Sports field Management in Australia and the Pacific Region	<a href="http://www.agcsa.com.au/">www.agcsa.com.au/</a>
Cricket Australia	The national governing body for professional and amateur cricket in Australia	<a href="https://www.cricketaustralia.com.au">https://www.cricketaustralia.com.au</a>
Golf Course Superintendents Association of Western Australia	The GCSAWA is the professional association for those involved in the golf course maintenance industry in WA	<a href="http://www.gcsawa.com.au/">http://www.gcsawa.com.au/</a>
New South Wales Golf Course Superintendents Association	The Association is a fraternal conglomerate of Professional Turf Managers, their assistants and a wide range of other turf related specialists who have a direct connection with the Golf Course Industry	<a href="http://www.nswgcsa.com.au/">http://www.nswgcsa.com.au/</a>

Queensland Golf Course Superintendents Association	The Golf Course Superintendents Association of Queensland (GCSAQ) are a supporting association of the golf course industry	<a href="https://gcsaq.com.au">https://gcsaq.com.au</a>
South Australia Golf Course Superintendents Association	The professional association of Golf Course and Sports field Management in South Australia	<a href="mailto:info.sagcsa@gmail.com">info.sagcsa@gmail.com</a>
Tasmania Golf Course Superintendents Association	The professional association of Golf Course and Sports field Management in Tasmania	<a href="http://www.agcsa.com.au/">www.agcsa.com.au/</a>
Turfgrass Association of Australia	An association dedicated to the development and professionalism of sports turf management	<a href="http://www.sportsturf.asn.au/">http://www.sportsturf.asn.au/</a>
Victorian Golf Course Superintendents Association	The Victorian Golf Course Superintendents Association (VGCSA) provides training and education services to members throughout Victoria	<a href="https://www.vgcsa.com.au/">https://www.vgcsa.com.au/</a>

## Viticulture

Australian Grape and Wine	A peak body representing Australia's grape and wine producers.	<a href="https://www.agw.org.au">https://www.agw.org.au</a>
New South Wales Wine Industry Association (NSWWIA)	A peak body representing the New South Wales wine industry.	<a href="https://www.nswwine.com.au">https://www.nswwine.com.au</a>
Queensland Wine Industry Association (QWIA)	A peak body representing Queensland wine businesses.	<a href="https://queenslandwine.com.au">https://queenslandwine.com.au</a>
South Australia Wine Industry Association (SAWIA)	A peak body representing the viticultural and winemaking interests of South Australia.	<a href="https://www.winesa.asn.au/">https://www.winesa.asn.au/</a>
Wine Australia	An Australian Government statutory authority governed by the <a href="#">Wine Australia Act 2013</a> .	<a href="https://www.wineaustralia.com">https://www.wineaustralia.com</a>
Wine Grape Council of South Australia (WGCSA)	A peak body representing South Australian grape growers.	<a href="https://www.wgcsa.com.au/">https://www.wgcsa.com.au/</a>
Wine Tasmania	A peak body representing Tasmanian grape growers and winemakers.	<a href="http://winetasmania.com.au">http://winetasmania.com.au</a>
Wine Victoria	A peak body representing the Victorian wine industry.	<a href="https://www.winevictoria.org.au/">https://www.winevictoria.org.au/</a>
Wines of Western Australia	A peak body representing the Western Australia wine industry.	<a href="https://www.winewa.asn.au">https://www.winewa.asn.au</a>

## Water Trading

Organisation	Detail	Contact
Bureau of Meteorology	Australian government agency that provides climate, weather and water information, including historical data and forecasts, including the <a href="#">Australian Water Outlook</a> .	<a href="http://www.bom.gov.au/water/?ref=fr">http://www.bom.gov.au/water/?ref=fr</a>  <a href="https://awo.bom.gov.au/products/historical/soilMoisture-rootZone/4,-25.125,137.505/riv.-25.609,134.362/r/d/2022-03-16">https://awo.bom.gov.au/products/historical/soilMoisture-rootZone/4,-25.125,137.505/riv.-25.609,134.362/r/d/2022-03-16</a>
Access Canberra - Water resources licensing	This ACT Government website provides information on water legislation, water licences, entitlements, and other topics related to accessing and trading water, including groundwater.	<a href="https://www.accesscanberra.act.gov.au/s/article/water-resources-licensing-tab-overview">https://www.accesscanberra.act.gov.au/s/article/water-resources-licensing-tab-overview</a>
Business Queensland - Water Allocations Register	This is an accurate and secure register that records water allocation ownership and other attributes of water allocations, provided by the Queensland Government.	<a href="https://www.business.qld.gov.au/industries/mining-energy-water/water/water-markets/register">https://www.business.qld.gov.au/industries/mining-energy-water/water/water-markets/register</a>
Murray–Darling Basin Authority (MDBA)	Under the Commonwealth Water Act 2007, the MDBA was established as an independent expertise-based statutory agency. It has several functions, including providing water rights information to facilitate water trading across the Basin.	<a href="https://www.mdba.gov.au/about-us">https://www.mdba.gov.au/about-us</a>
WaterNSW	Operates the state’s rivers and water supply systems in accordance with the rules set out by regulators.	<a href="https://www.watarnsw.com.au/customer-service/water-licensing/nsw-water-register">https://www.watarnsw.com.au/customer-service/water-licensing/nsw-water-register</a>
NSW Water Register	NSW Water Register provides public access to information about	<a href="https://www.watarnsw.com.au/about">https://www.watarnsw.com.au/about</a>

	water licences, approvals, water trading, water dealings, environmental water and other matters related to water entitlements in NSW.	
Northern Territory - Water Website and Trade Register produced by the Dept of Environment, Parks and Water Security.	A government website that has information on water, including resources, legislation, permits and licences, water allocations and a register of trades in the Northern Territory.	<a href="https://depws.nt.gov.au/water">https://depws.nt.gov.au/water</a>
South Australian Water Register	South Australia's Water Register records relevant information about water licences, water access entitlements and forest water licences.	<a href="https://www.environment.sa.gov.au/topics/water/water-markets-and-trade/water-register">https://www.environment.sa.gov.au/topics/water/water-markets-and-trade/water-register</a>
Tasmanian Irrigation and the Water Entitlements Register	A State-owned Company, Tasmanian Irrigation owns, operates, designs and develops irrigation schemes to deliver high-surety irrigation water to Tasmanian landowners. It also manages the Water Entitlement Register	<a href="https://www.tasmanianirrigation.com.au/water-entitlement-register">https://www.tasmanianirrigation.com.au/water-entitlement-register</a>  <a href="https://www.tasmanianirrigation.com.au/water-entitlement-register-2">https://www.tasmanianirrigation.com.au/water-entitlement-register-2</a>
Victorian Water Register, produced by Department of Environment, Land, Water and Planning	A public register of water-related entitlements. The website includes several data, resources and tools to help people to trade water in Victoria, a water dictionary.	<a href="https://www.waterregister.vic.gov.au/">https://www.waterregister.vic.gov.au/</a>
Western Australian Water Register produced by the Dept of Water and Environment Regulation	The Water Register is a web-based application that allows you to search, view and print information about water availability and licences, free of charge.	<a href="https://www.water.wa.gov.au/maps-and-data/maps/water-register">https://www.water.wa.gov.au/maps-and-data/maps/water-register</a>



## State and Territory Training Authorities

Australian Capital Territory	<a href="https://www.education.act.gov.au/">https://www.education.act.gov.au/</a>
New South Wales	<a href="https://www.education.nsw.gov.au/">https://www.education.nsw.gov.au/</a>
Northern Territory	<a href="http://www.education.nt.gov.au/">http://www.education.nt.gov.au/</a>
Queensland	<a href="https://desbt.qld.gov.au/training">https://desbt.qld.gov.au/training</a>
South Australia	<a href="http://www.education.sa.gov.au/">http://www.education.sa.gov.au/</a>
Tasmania	<a href="http://www.skills.tas.gov.au/">http://www.skills.tas.gov.au/</a>
Victoria	<a href="http://www.education.vic.gov.au/">http://www.education.vic.gov.au/</a>
Western Australia	<a href="http://www.dtwd.wa.gov.au">http://www.dtwd.wa.gov.au</a>

## General

Organisation/Resource	Details	Website
Australian Apprenticeships	Quick and easy access to information about Australian apprenticeships	<a href="http://www.australianapprenticeships.gov.au">www.australianapprenticeships.gov.au</a>
Australian Industry Group	A peak body representing employer organisations in traditional, innovative and emerging industry sectors.	<a href="http://www.aigroup.com.au">http://www.aigroup.com.au</a>
Australian Qualifications Framework	National policy for regulated qualifications in Australian education and training	<a href="http://www.aqf.edu.au/">http://www.aqf.edu.au/</a>
Australian Skills Quality Authority (ASQA)	National regulator for Australia's vocational education and training sector	<a href="http://www.asqa.gov.au">http://www.asqa.gov.au</a>
Australian Workers' Union (AWU)	The AWU represents blue-collar workers in the manufacturing, steel, aluminium, glass, oil & gas, aviation, agriculture, construction, state public services, local government, health, plastics, hospitality, food, paper, resources, aquaculture, events and racing industries.	<a href="https://www.awu.net.au">https://www.awu.net.au</a>
National Farmers' Federation (NFF)	A peak body representing farmers, and more broadly, agriculture across Australia.	<a href="http://www.nff.org.au">http://www.nff.org.au</a>

National Union of Workers (NUW)	The NUW empowers all workers to stand together – casual, permanent, part time or contract – and unite to improve their working lives and build stronger communities that can prioritise people and planet.	<a href="https://www.nuw.org.au">https://www.nuw.org.au</a>
Safe Work Australia	Leads the development of national policy to improve work health and safety and workers' compensation arrangements	<a href="http://www.safeworkaustralia.gov.au/sites/SWA">http://www.safeworkaustralia.gov.au/sites/SWA</a>
Training Accreditation Council Western Australia (WA TAC)	Regulates vocational education and training in WA	<a href="http://www.tac.wa.gov.au">http://www.tac.wa.gov.au</a>
Training.gov.au	National register of training packages	<a href="http://www.training.gov.au/">http://www.training.gov.au/</a>
Victorian Registration and Qualifications Authority (VRQA)	Regulates vocational education and training, apprenticeships and traineeships in Victoria	<a href="http://www.vrqa.vic.gov.au/">http://www.vrqa.vic.gov.au/</a>