

AHC10 QUALIFICATIONS AND AUSTRALIAN APPRENTICESHIPS GUIDE

PRODUCTION HORTICULTURE

The ***Agriculture, Horticulture and Conservation and Land Management - AHC10 Version 2.1 Training Package*** was endorsed by the National Quality Council (NQC) in April 2011 and published on the National Training Information Services (NTIS) website on 10 June 2011. The Training Package is under constant review by the various stakeholders and, from time to time, amendments will be made to reflect current practices and the changing needs of the industry. The date of approved changes made to any of the qualifications in the Training Package (post endorsement) is shown in the "Endorsed/Revised" column of the "**Qualification Index**" on the next page. More detailed information about Training Packages can be obtained from the websites of the organisations listed below. Copies of all current qualifications and ancillary information can be downloaded from the Rural Skills Australia website.

Organisation	Website Address
Rural Skills Australia	www.ruralskills.com.au
Training.gov.au *	www.training.gov.au
Agrifood Skills Australia	www.agrifoodskills.net.au


(* Undertaking a role which was formerly the responsibility of the National Training Information Service (NTIS))

This package, which focuses on the production horticulture industry, is part of a much larger document that provides information about all other industry sectors in the ***AHC10 Training Package*** including:

- * - **Agriculture**
- * - **Horticulture**
- * - **Conservation and Land Management**
- * - **Services:** *Agribusiness, Beekeeping, Commercial Seed Processing, Commercial Composting, Conservation Earthworks, Feedlot, Irrigation, Rural Machinery, Rural Merchandising, Rural Operations, Shearing, Wool Classing and Wool Handling.*

Details about the training available in these industry sectors can also be found on the Rural Skills Australia website.

The production horticulture industry has four general qualifications – one at each level from Certificate II to Diploma.

 <p>Australian Government Department of Education, Employment and Workplace Relations</p>	<p><i>This publication has been produced as a Project funded under the Australian Government's Industry Training Strategies Program: Industry Pathfinder, administered by the Department of Education, Employment and Workplace Relations.</i></p>
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Disclaimer

This Guide is provided for information purposes only. Rural Skills Australia will not accept responsibility or liability for the accuracy or authenticity of the contents of this Guide. The information is provided on the basis that persons using the Guide undertake responsibility for assessing the relevance and accuracy of its content. The eventual availability of specific Australian Apprenticeships pathways across States and Territories will be dependent on required processes being initiated and finalised within individual jurisdictions.



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PRODUCTION HORTICULTURE

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CERTIFICATE II IN PRODUCTION HORTICULTURE – (AHC20310)

QUALIFICATION NOTES

This qualification provides an occupational outcome in production horticulture.

The qualification enables individuals to select a tree cropping, vegetable, berry production or mushroom production context as a job focus or, in the case of mixed enterprises, both.

Job titles may include:

Farm or orchard hand
Farm or orchard worker
Farm or orchard labourer

PACKAGING RULES

Completion of **fifteen (15) units** made up of:

- a) two (2) core units
- b) a minimum of three (3) units from elective group A
- c) a minimum of seven (7) units from elective groups A or B
- d) a maximum of three (3) units may be selected from units aligned to Certificates II or III in AHC10 or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in the production horticulture industry.

CORE UNITS

Occupational Health and Safety

	NOTES
AHCOHS201A - Participate in OHS processes	

Work

AHCWRK209A - Participate in environmentally sustainable work practices	
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ELECTIVE UNITS GROUP A

Production Horticulture

AHCPHT201A - Plant horticultural crops	
AHCPHT202A - Carry out canopy maintenance	
AHCPHT203A - Support horticultural crop harvesting	
AHCPHT204A - Undertake field budding and grafting	
AHCPHT205A - Carry out post-harvest operations	
AHCPHT206A - Handle and move mushroom boxes	
AHCPHT207A - Perform mushroom substrate process tasks	
AHCPHT208A - Water mushroom crops	

Soils and Media

AHCSOL201A - Determine basic properties of soil and/or growing media	
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ELECTIVE UNITS GROUP B

Biosecurity

AHCBIO202A - Follow site quarantine procedures	
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Chemicals

AHCCHM201A - Apply chemicals under supervision	
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Food

FDFOPTWFS2A - Work in a food handling area for non-food handlers	
FDFOPTFST2A - Maintain food safety when loading, unloading and transporting food	

Infrastructure

AHCINF203A - Maintain properties and structures	
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Machinery Operation and Maintenance

AHCMOM201A - Operate two wheel motorbikes	
AHCMOM202A - Operate tractors	
AHCMOM203A - Operate basic machinery and equipment	
AHCMOM204A - Undertake operational maintenance of machinery	
AHCMOM205A - Operate vehicles	
AHCMOM212A - Operate quad bikes	
FPICOT2234A - Operate 4 X 4 vehicle	
TLID1007C - Operate a forklift	
TLID2207C - Conduct weighbridge operations	

Nursery

AHCNSY203A - Undertake propagation activities	
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Pest Management

AHCPMG201A - Treat weeds	
AHCPMG202A - Treat plant pests, diseases and disorders	

Tools and Equipment

MEM18001C - Use hand tools	
MEM18002B - Use power tools/hand held operations	

Work

AHCWRK201A - Observe and report on weather	
AHCWRK203A - Operate in isolated and remote situations	
AHCWRK206A - Observe enterprise quality assurance procedures	
AHCWRK207A - Collect and record production data	
AHCWRK208A - Provide information on products and services	
TLID107C - Shift materials safely using manual handling methods	

CERTIFICATE III IN PRODUCTION HORTICULTURE – AHC30610

QUALIFICATION NOTES

This qualification provides a vocational outcome in production horticulture. The qualification enables individuals to select a tree cropping, vegetable, berry production or mushroom production context as a focus or, in the case of mixed enterprises, both.

Job titles may include:

Vegetable farm worker
Orchard farm worker
Mushroom farm worker
Plantation worker

PACKAGING RULES

Completion of **fifteen (15) units** made up of:

- a) one (1) core unit
- b) a minimum of four (4) units from elective group A
- c) a minimum of seven (7) units from elective groups A or B
- d) a maximum of three (3) units may be selected from units aligned to Certificates II, III or IV in AHC10 or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in the production horticulture industry.

CORE UNIT

Occupational Health and Safety

	NOTES
AHCOHS301A - Contribute to OHS processes	

ELECTIVE UNITS GROUP A

Production Horticulture

AHCPHT301A - Carry out a crop regulation program	
AHCPHT302A - Coordinate horticultural crop harvesting	
AHCPHT303A - Implement a post-harvest program	
AHCPHT304A - Harvest horticultural crops mechanically	
AHCPHT305A - Regulate crops	
AHCPHT306A - Establish horticultural crops	
AHCPHT307A - Prepare raw materials and compost the feedstocks	
AHCPHT308A - Prepare value added compost based products	
AHCPHT309A - Supervise mushroom substrate preparation	

ELECTIVE UNITS GROUP B

Biosecurity

AHCBIO301A - Work effectively in an emergency disease or plant pest response	
AHCBIO302A - Identify and report unusual disease or plant pest signs	
AHCBIO303A - Carry out emergency disease or plant pest control procedures at infected premises	
AHCBIO304A - Carry out movement and security procedures	
AHCBIO305A - Monitor and review biosecurity measures	

Chemicals

AHCCHM301A - Conduct fumigation in enclosed spaces	
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AHCCHM302A - Fumigate soil using chemicals	
AHCCHM303A - Prepare and apply chemicals	
AHCCHM304A - Transport, handle and store chemicals	

Drainage

AHCDRG301A - Install drainage systems	
AHCDRG302A - Measure drainage system performance	
AHCDRG303A - Troubleshoot drainage systems	

Hydroponics

AHCHYD301A - Implement a maintenance program for hydroponic systems	
AHCHYD302A - Install hydroponic systems	

Irrigation

AHCIRG301A - Implement a maintenance program for an irrigation system	
AHCIRG302A - Install irrigation systems	
AHCIRG303A - Measure irrigation delivery system performance	
AHCIRG305A - Operate pressurised irrigation systems	
AHCIRG306A - Troubleshoot irrigation systems	

Machinery Operation and Maintenance

AHCMOM301A - Coordinate machinery and equipment maintenance and repair	
AHCMOM302A - Perform machinery maintenance	
AHCMOM304A - Operate machinery and equipment	
AHCMOM305A - Operate specialised machinery and equipment	
AHCMOM315A - Operate chemical application machinery and equipment	
DFWGG3008A - Operate a mechanical grape harvester	
DFWGG3013A - Operate spreading and seeding equipment	

Pest Management

AHCPMG301A - Control weeds	
AHCPMG302A - Control plant pests, diseases and disorders	
AHCPMG303A - Maintain biological cultures	
AHCPMG304A - Release biological agents	

Work

AHCWRK302A - Monitor weather conditions	
AHCWRK303A - Respond to emergencies	
AHCWRK305A - Coordinate work site activities	
AHCWRK306A - Comply with industry quality assurance requirements	
AHCWRK308A - Handle bulk materials in storage area	
AHCWRK313A - Implement and monitor environmentally sustainable work practices	

CERTIFICATE IV IN PRODUCTION HORTICULTURE – (AHC40310)

QUALIFICATION NOTES

This qualification allows individuals to develop post-trade skills and knowledge to become specialists within the production horticulture industry. It is designed to meet the needs of supervisors or team leaders in the production horticulture industry.

The qualification enables individuals to select a tree cropping, vegetable, berry or flower production or mushroom production context as a job focus or, in the case of mixed enterprises, both.

Job titles may include:

Farm team leader
Farm supervisor

PACKAGING RULES

Completion of **twelve (12) units** made up of:

- a) one (1) core unit
- b) a minimum of three (3) units from elective group A
- c) a minimum of five (5) units from elective groups A or B
- d) a maximum of three (3) units may be selected from units aligned to Certificates III, IV or Diploma in AHC10 or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in the production horticulture industry.

CORE UNIT

Occupational Health and Safety

	NOTES
AHCOHS401A - Maintain OHS processes	

ELECTIVE UNITS GROUP A

Plants

AHCPM401A - Recommend plants and cultural practices	
AHCPM402A - Develop a soil health and plant nutrition program	

Production Horticulture

AHCPHT401A - Assess olive oil for style and quality	
AHCPHT402A - Develop a crop regulation program	
AHCPHT403A - Develop harvesting and processing specifications to produce an olive oil	
AHCPHT404A - Implement and monitor a horticultural crop harvesting program	
AHCPHT405A - Manage mushroom substrate preparation	
AHCPHT406A - Control Phase II mushroom substrate process	
AHCPHT407A - Manage mushroom crop development	

Nursery

AHCNSY401A - Plan a growing on program	
AHCNSY402A - Plan a propagation program	

ELECTIVE UNITS GROUP B

Soils and Media

AHCSOL401A - Sample soils and interpret results	
AHCSOL402A - Develop a soil use map for a property	

Business

AHCBUS404A - Operate within a budget framework	
AHCBUS405A - Participate in an e-business supply chain	

Chemicals

AHCCHM401A - Minimise risk in the use of chemicals	
AHCCHM402A - Plan and implement a chemical use program	

Food

FDFOPHCP3A - Participate in a HACCP team	
FDFCORQFS3A - Monitor the implementation of quality & food safety program	

Irrigation

AHCIRG402A - Determine hydraulic parameters for an irrigation system	
AHCIRG403A - Determine seasonal irrigation scheduling tasks	
AHCIRG404A - Implement an irrigation related environmental protection program	
AHCIRG405A - Plan and coordinate gravity fed irrigation systems	

Organic Production

AHCORG401A - Manage biodynamic production	
AHCORG403A - Manage organic soil improvement	

Work

AHCWRK401A - Implement and monitor quality assurance procedures	
AHCWRK402A - Provide information on issues and policies	
AHCWRK403A - Supervise work routines and staff performance	

DIPLOMA OF PRODUCTION HORTICULTURE – (AHC50310)

QUALIFICATION NOTES

The Diploma of Production Horticulture reflects the role of personnel working on production horticulture farms. The qualification can be contextualised for a tree cropping, vegetable, berry or flower production or mushroom production context as a job focus or, in the case of mixed enterprises, both.

Job titles may include:

Production horticulture farm manager

PACKAGING RULES

Completion of **ten (10)** units made up of:

- a) a minimum of two (2) units from elective group A
- b) a minimum of six (6) units from elective groups A or B
- c) a maximum of two (2) units may be selected from units aligned to Certificate IV or above in AHC10 or from any other currently endorsed training package or accredited course. Selected units must be relevant to job outcomes in the production horticulture industry.

ELECTIVE UNITS GROUP A

Plants

	NOTES
AHPCPM501A - Diagnose plant health problems	

Production Horticulture

AHCPHT502A - Develop a horticultural production plan	
AHCPHT503A - Manage a controlled growing environment	

Hydroponics

AHCHYD501A - Develop a plan for a hydroponic system	
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Soils and Media

AHCSOL501A - Monitor and manage soils for production	
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ELECTIVE UNITS GROUP B

Biosecurity

AHC BIO501A - Manage active operational emergency disease or plant pest sites	
AHC BIO502A - Manage the implementation of an emergency disease or plant pest control program	

Business

AHCBUS501A - Manage staff	
AHCBUS502A - Market products and services	
AHCBUS503A - Negotiate and monitor contracts	
AHCBUS505A - Develop a marketing plan	
AHCBUS506A - Develop and review a business plan	
AHCBUS507A - Monitor and review business performance	
AHCBUS508A - Prepare and monitor budgets and financial reports	
TLIR307C - Negotiate a contract	
BSBR501A - Manage risk	

TLIL1907C	- Implement and monitor transport logistics	
TLIR207C	- Source goods/services and evaluate contractors	

Chemicals

AHCCHM501A	- Develop and manage a chemical use strategy	
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Drainage

AHCDRG501A	- Design drainage systems	
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Hydroponics

AHCHYD501A	- Develop a plan for a hydroponic system	
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Irrigation

AHCIRG502A	- Design irrigation system maintenance and monitoring programs	
AHCIRG503A	- Design irrigation, drainage and water treatment systems	
AHCIRG504A	- Develop an irrigation and drainage management plan	

Machinery Operation and Maintenance

AHCMOM501A	- Manage machinery and equipment	
AHCMOM502A	- Implement a machinery management system	

Organic Production

AHCORG501A	- Develop an organic management plan	
AHCORG502A	- Prepare the enterprise for organic certification	

Water

AHCWAT501A	- Design water treatment systems	
AHCWAT502A	- Manage water systems	

Work

AHCWRK501A	- Plan, implement and review a quality assurance program	
AHCWRK511A	- Develop workplace policy and procedures for sustainability	

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What is a Training Package?

A training package is a set of nationally endorsed and recognized competencies and qualifications that are used to describe the level of knowledge and skills required by an individual to work effectively in the workplace. Training packages are developed and endorsed by industry through national Industry Skills Councils and are designed to meet the training needs of a specific industry, industry sector or enterprise.

Each training package is made up of three key components each of which is endorsed by the National Quality Council (NQC). The three 'components' are: - Competency Standards; Assessment Guidelines and Qualifications Framework.

Responsibility for the development, implementation and on-going review of the Agriculture, Horticulture and Conservation and Land Management Training Package (AHC10) rests with AgriFood Skills Australia. AgriFood Skills Australia is one of a number of Industry Skills Councils that work in conjunction with industry, industry representative bodies, training organisations, affiliated organisations in each of the States and Territories and other interested parties to undertake this work. For more detailed information about the role and responsibilities of AgriFood Skills Australia within the industry training sector and, for specific information about training packages in particular, visit their website at www.agrifoodskills.net.au.

The Agriculture, Horticulture and Conservation and Land Management Training Package (AHC10) is a new training package and is the result of several years of planning, extensive consultation, product development and on-going review. The training package is the amalgamation of three earlier and quite separate training packages namely the Rural Production Training Package, the Amenity Horticulture Training Package and the Conservation and Land Management Training Package all of which have been the basis for training delivery in their respective industry sectors since 2002/03. The second version of the new AHC10 Training Package was endorsed by the National Quality Council in April 2011.

The training pathway chart, which is a part of this information package, is designed to provide an insight into the qualification pathways, the various points of entry into the training and the levels of qualifications available in the agricultural industry sector.

How to Gain a Qualification

There are four ways of obtaining a qualification from the Agriculture, Horticulture and Conservation and Land Management Training Package (AHC10):

- 1. Australian Apprenticeships** – an employment based training arrangement that combines practical work experience with an underpinning theory based component. Training is delivered utilising a variety of different delivery methods by a Registered Training Organisation that also assesses the Australian Apprentice and awards an appropriate qualification on successful completion.
- 2. Skills Recognition** – this is a process whereby individuals gather evidence to demonstrate their skills and knowledge base and, if deemed competent, may be awarded an appropriate qualification (e.g. Certificate IV in Agribusiness).
- 3. Study with a Registered Training Organisation (RTO)** – by enrolling in any of the qualifications listed in the Agriculture, Horticulture and Conservation and Land Management Training Package (AHC10) at an appropriate TAFE College, private Registered Training Organisation or Agricultural College.
- 4. Complete a VET in Schools Qualification** – normally at the Certificate I and II level while participating in compulsory schooling.



The Importance of Gaining a Qualification

Owning, managing or working in any enterprise or organization associated with the agriculture, horticulture and conservation and land management industries provides individuals with the opportunity to acquire knowledge and develop skills related to those industries. A person who has had hands on experience in the workplace may have performed a number of different tasks such as, the safe handling of stock, the control and application of chemicals, the maintenance of parks and gardens, financial tasks associated with the running of a business or perhaps, the management of employees and contractors and will have acquired both knowledge and skills as a consequence of that experience. These skills may be highly valued in the general workforce but, in many instances, individuals may not have the formal documentation to demonstrate the extent of the knowledge and skills they have acquired. This often puts them at a disadvantage when applying for jobs. Without the support of the relevant documentation some job applicants may lack the confidence and ability to convey the full scope of their knowledge and skills to a prospective employer. ***Obtaining a qualification can assist in overcoming this problem and open up a host of employment opportunities.***

When thinking about job and career opportunities there are national training and qualification pathways in agriculture, horticulture and conservation and land management that individuals can follow to pursue their employment and career interests. Details of the range of qualifications available and the industry specific pathways are included at the end of this booklet.

A number of jobs in industry require a person to have a prescribed qualification in order to perform the duties of the job. For example, some Departments of Agriculture require that their Technical and Quarantine Officers are graduates with Certificate III or Certificate IV level qualifications in agriculture. Similarly, many training institutions require their teaching staff to hold a Diploma or Advanced Diploma level qualification. ***Having a qualification can greatly enhance an individual's career prospects.***

Individuals may receive credit for studies they have undertaken at a TAFE College or Registered Training Organisation in relation to higher level studies. Some tertiary institutions will accept or recognize the completion of higher level AHC10 qualifications to gain entry and/or credit into various degree programs. Individuals are advised to check available arrangements, if any, with individual tertiary institutions.

What is Skills Recognition?

Skills Recognition is the formal acknowledgement of the skills, knowledge and competencies that a person has acquired through previous formal or informal training, work experience and/or life experience. For a fee a person can apply to have their skills assessed by a qualified assessor against the national competencies for the industry and can be awarded a qualification, or part of a qualification, based on their practical knowledge and experience. The skills recognition process helps overcome the need for people to spend unnecessary time in the classroom going over work that they already know. For example, a person who has spent time working in a farming environment may have acquired a range of skills related to their experience (e.g. the operation and maintenance of machinery, the handling of chemicals, the management of livestock). These skills can be assessed as part of the Skills Recognition process and can contribute towards a qualification. Skills Recognition processes are sometimes referred to as Recognition of Prior Learning (RPL) processes or Recognition of Current Competency (RCC) processes.

For further information on skills recognition contact a TAFE college, private Registered Training Organisation or an Agricultural College.



Rural Skills Australia – Contact Details

Rural Skills Australia has representatives in each of the States and Territories who can be contacted for advice on training matters relating to the *Agriculture, Horticulture and Conservation and Land Management Training Package*.

National Office

Rural Skills Australia
Level 2, NFF House
14 – 16 Brisbane Ave
BARTON ACT 2600

PO Box E10
KINGSTON ACT 2604

PH: (02) 6269 5630
Fax: (02) 6273 7364
Toll Free: 1800 647 798
Email: admin@ruralskills.com.au

New South Wales/ACT

Education and Training Adviser
Rural Skills Australia

PO Box E10
KINGSTON ACT 2604

PH: (02) 6269 5630
Fax: (02) 6273 7364
Mob: 0419 496 876
Email: nsw.eta@ruralskills.com.au

Victoria

Gordon Griffin
Education and Training Adviser
Rural Skills Australia

PO Box 163
SHEPPARTON VIC 3630

PH: (03) 5821 1522
Fax: (03) 5831 1520
Mob: 0417 361 632
Email: gordong@ruralskills.com.au

Queensland

Bob Ward
Education and Training Adviser
Rural Skills Australia

PO Box 13304 George St
BRISBANE QLD 4003

Mob: 0411 423 803
Email: bobw@ruralskills.com.au

South Australia

Ross Manthorpe
Education and Training Adviser
Rural Skills Australia

PO Box 13
HIGHGATE SA 5063

PH: (08) 8121 7954
Mob: 0409 676 694
Email: rossm@ruralskills.com.au

Tasmania

Roger Tyshing
Education and Training Adviser
Rural Skills Australia

PO Box 193
LAUNCESTON TAS 7250

PH: (03) 6332 1810
Fax: (03) 6331 4344
Mob: 0438 514 560
Email: rogert@ruralskills.com.au

Western Australia

Fred Chambers
Education and Training Adviser
Rural Skills Australia

PO Box 33
PEMBERTON WA 6260

PH: (08) 9776 1847
Fax: (08) 9776 1847
Mob: 0409 884 574
Email: fredc@ruralskills.com.au

Northern Territory

David Wilkes
Education and Training Adviser
Rural Skills Australia

PO Box 128
BERRIMAH NT 0828

PH: (08) 8984 4997
Mob: 0418 807 157
Email: davidw@ruralskills.com.au



AHC10 PATHWAYS – PRODUCTION HORTICULTURE INDUSTRY FOCUS

