

Case for Endorsement

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

Version 3.0

Agriculture Chemical Handling
Pest Management
Advanced Skills in Apiculture
and
Safe Operation Agriculture Machinery
and New Technology

**Submitted by Skills Impact
on behalf of
Amenity Horticulture, Landscaping,
Conservation and Land Management IRC
and
Agriculture and Production Horticulture IRC**

June 2018

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A. Administrative details

This section provides an overview of the relevant organisations, the case for change, and training package components for endorsement.

Industry Reference Committees submitting the Case for Endorsement

This submission is made by both the:

- Agriculture and Production Horticulture Industry Reference Committee
- Amenity Horticulture, Landscaping, Conservation and Land Management Industry Reference Committee.

The Agriculture and Production Horticulture Industry Reference Committee are responsible for the:

- Pest Management
- Advanced Skills in Apiculture (Bees)
- Safe Operation of Agricultural Machinery and New Technology components for submission.

The Amenity Horticulture, Landscaping, Conservation and Land Management Industry Reference Committee is responsible for the submission of the:

- Agriculture Chemical Handling Project.

Skills Service Organisation supporting the submission

Skills Impact Ltd is the Skills Service Organisation (SSO) supporting these submissions.

Components submitted for approval

Components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0*. has been reviewed during four projects.

1. Pest Management

- 1 qualification
- 29 Units of competency
- 1 Skill Set (non-endorsed component).

2. Advanced Skills in Apiculture (Bees)

- 1 qualification
- 21 Units of competency
- 4 Skill Sets (non-endorsed components).

3. Safe Operation Agriculture Machinery and New Technology

- 1 qualification
- 37 Units of competency.

4. Agriculture Chemical Handling

- 12 Units of competency
- 2 Skill Sets (non-endorsed components).

Please refer to **Appendix 1 Components for endorsement** for full details of all components.

Case for Change details for Agriculture Chemical Handling; Pest Management; Advanced Skills in Apiculture (Bees); and Safe Operation Agricultural Machinery and New Technology Projects

An omnibus Activity Order Skills Impact/TPD/2017-18/002 was approved on 1 August 2017 for:

- Pest Management
- Advanced Skills in Apiculture (Bees)
- Safe Operation Agriculture Machinery and New Technology
- Agriculture Chemical Handling.

Activity start date: 1 August 2017

Activity finish date: 30 June 2018

Requirements set by the Australian Industry and Skills Committee (AISC) in relation to the training package development work

1. Pest Management

Skills Impact was required to manage the review of the qualification, skill sets and units of competency for Pest Management so that all job functions are accurately described, with the appropriate current knowledge and skills needed to support various methods, regulations and standards for trapping and eradicating pests.

The areas to focus on include:

- full review and improvement of *AHC33616 Certificate III in Pest Management* adding specialisations in Vertebrate Pest Management and/or Pest Animal Control and Weed Management
- full review and improvement of 28 units of competency
- review and improvement of 1 skills set
- development of up to 5 new units and/or skill sets, as identified during the review process.

2. Advanced Skills in Apiculture (Bees)

Skills Impact was required to manage the review of units of competency and the qualification in bee keeping so that all job functions are accurately described, with appropriate current knowledge and skill needs, particularly in relation to the skills and knowledge that relate to biosecurity, pollination and business management.

The areas to focus on include the:

- review and improvement of *AHC32016 Certificate III in Beekeeping* to address skills relating to biosecurity and pollination services along with including types of marketing and business activities that would be suitable for bee keeping
- review and improvement of 19 units of competency
- development of up to 5 new units and/or skill sets as identified during review.

3. Safe Operation Agriculture Machinery and New Technology

Recent quad-bikes accidents have led to concern over the safety of their operation. A recent coronial inquest called for the development of an improved and standardised nationally accredited training package for the operation of quad bikes, side-by-side and related vehicles. The review aimed to improve and update units of competency and the *Certificate III in Rural Machinery Operations* to ensure all job functions are accurately described, with appropriate current knowledge and skill needs. The project also considered the associated risks and safety measures relating to farm mobile machinery operations; gaps for operating commercial lawnmowers; and risks associated with the operation of quad bikes, particularly rollovers when driving in steep and rocky terrain.

The areas to focus on include:

- review and improvement of 35 units of competency across Machinery and Operation (MOM)

- review and improvement of *AHC32616 Certificate III in Rural Machinery Operations* incorporating the use of new technology and safety measures in all farm mobile machinery operations within the agriculture sector
- development of up to 5 new units and/or skill sets as identified during review.

4. Agriculture Chemical Handling

Australia's full implementation of the Global Harmonised System (GHS) is making it mandatory that all chemicals be labelled and comply with GHS regulations. The importance of skills in safe chemical application and handling is to be considered in light of new practices, technology and industry standards, including the Globally Harmonised System (GHS) for classifying and labelling of chemicals and techniques for spray drift mitigation.

Skills Impact was required to manage the review and update the units of competency and skill sets for chemical handling, to reflect current industry skills standards and practices, so that all job functions are accurately described.

The areas to focus on included the:

- review and improvement of 12 units of competency
- review and improvement of 2 skills sets
- development of up to 5 new units and/or skill sets, as identified during the full review.

B. Description of work and request for approval

This section describes the work undertaken and the decision being sought from the AISC. The following points are covered for each project.

- Evidence of consultation with states and territories is provided in this document.
- All units have had minor changes to the Performance Criteria and Foundation Skills have been added. Performance Evidence and Knowledge Evidence components have been clarified and further details provided in the Assessment Conditions.
- All components submitted for endorsement have been developed and reviewed in accordance with the *Standards for Training Packages 2012*, the *Training Package Products Policy 2012* and the *Training Package Development and Endorsement Policy, 2016*.

1. Pest Management Project

Skill description: Pest animals and weeds cost farmers billions of dollars a year through livestock losses, disease transmission and controls. The Australian Government and state/territory governments invest significantly in programs to support farmers and the community to tackle established pest animals.

The National Wild Dog Action Plan (NWDAP) Working Group for Training and Education (WG T&E) advised that the *Certificate III in Pest Management* released in 2016 does not meet the needs of industry. Pest management, including wild dogs, requires pest animal controllers to have skills and knowledge in:

- specific methods for trapping and destruction of predator pests that are different from those required for rodent control.
- managing animal activist groups and public perception of pest control through driving educated communication about the humane destruction of predator pests
- the potential impact on domestic pets and wildlife
- interpreting and applying state/territory regulations regarding chemical use, storage and transport.

Driver for this project: The National Wild Dog Action Plan Working Group for Training and Education recommended that pest animal controllers (PAC), such as wild dog control professionals employed by agencies and land managers, should have nationally endorsed qualifications. The minimum training required for PAC operators is a full certificate qualification. Skills Impact consulted with industry experts as part of the development phase to carry out a full review of the *Certificate III in Pest Management*, *Vertebrate Pest Management Planning Skill Set* and 29 units of competency.

Work undertaken: The pest management Subject Matter Expert (SME) group was initially concerned that the vertebrate pest controllers were not adequately represented in the current qualification and that their identity as a separate sector was being lost in what they considered was too generic a qualification. During preliminary discussions it was suggested there were two main specialisations in vertebrate pest control and weed control where industry contractors currently practice. However, local government and government agencies have a need for broader-skilled individuals who may conduct pest control in both sectors.

It was decided that, rather than develop a separate qualification for each specialisation, a broad qualification to cater for the generic practitioners, together with specialist streams for weed control and pest control would enable all pest controllers to be adequately represented. Questions regarding pest control in urban environment and in agriculture and horticulture was also raised as these are also important sectors.

The developer identified qualifications in the *CPP Property Services Training Package (CPP)* and existing *AHC Agriculture, Horticulture and Conservation and Land Management Training Package (AHC)* qualifications that adequately covered these specialised invertebrate pest control activities. It was considered unnecessary to duplicate them under the pest control sector.

The title of the qualification was changed to ensure separation from urban pest control activities and invertebrate agriculture/horticulture pest control activities. Further flexibility has been provided in the qualification by adding an additional unit and allowing units to be imported from other training packages. The core has been increased from three to six units to reflect a more accurate set of skills common to all pest controllers.

Emphasis on biosecurity issues was also raised as a concern as this was seen as an important part of pest control work. Units of competency in biosecurity were reviewed as part of this project and all other units were bolstered with specific references to biosecurity, where appropriate.

During the review, specificity was also removed from many units of competency where reference was made to strategies or processes that were not universally accepted, mandated or requirements of regulation. Where these strategies, such as integrated pest management, were deemed sufficiently important, they were referenced in the knowledge evidence section to ensure adequate training and assessment would be implemented.

Vertebrate pest control representatives identified a skill not adequately covered in the current pest control suite of units and a new unit addressing vertebrate pest baiting was developed.

Decision being sought: One qualification and 29 units of competency be endorsed as part of the Case for Endorsement of the proposed components of the *AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training Package Version 3.0*.

2. Advanced Skills in Apiculture Project

Skill description: Beekeeping plays a critical role within the production horticulture sector through enhancing food security and high-value crops by the ability of beekeepers to provide efficient and well managed pollination of crops and plants. Key skills are required to minimise biosecurity threats and improve biosecurity control measures, including aligning beekeeping practices with the latest biosecurity standards.

To be competitive, beekeepers need business management and communication skills to manage honey production and provide pollination services. This includes equipping beekeepers to apply marketing strategies (including the ability to capitalise on the reputation of Australia's high-quality honey internationally, and to promote the value of pollination services to farmers domestically) in order to address international and domestic opportunities for growth

Driver for this project: The apiculture industry is changing in response to growing horticultural industries that rely on bees and an increased demand for pollination services. A Senate Inquiry into the future of the beekeeping and pollination service industries in Australia, made recommendations for improving existing biosecurity measures through implementation of a national standard or code of practice for beekeeping and to promote beekeeping best-management practices and optimal biosecurity.

While the beekeeping industry continues to provide honey as its main business and income stream, a significant shift has occurred into pollination services to support the agricultural and horticultural industries, driven by the ability of honey bees to increase productivity and crop yield. In 2014 - 2015 paid pollination was conducted by approximately 44 per cent of beekeepers¹. It was found that the proportion of beekeepers and the value of payments received were higher in areas that produced large amounts of bee pollination dependent crops, such as almonds and cherries. Almond orchards used 195,000 hives during their busy pollination season in 2016 and it is foreseen that the almond industry alone will need to find an additional 70,000 hives over the next five years. The demand for pollination services is expected to rise quickly as other new orchards are planted, and with a rapid expansion of horticultural industries that rely on bees. Many beekeepers who traditionally focused on bulk honey production, are now moving to paid pollination as well as honey production. The increase in demand will make pollination more profitable for apiarists which in turn will make the industry more sustainable and create opportunities for new people to enter the industry.

Work undertaken: An SME group, consisting of seven representatives of the beekeeping industry from across New South Wales, Queensland, South Australia, Tasmania and Victoria was formed to provide technical advice.

During the project industry representatives consistently stated that a person who achieves the *Certificate III in Beekeeping* needs to acquire a broad and deep range of beekeeping skills to work effectively within

¹ ABARES, 2016, 'Australian honey bee industry: 2014–15 survey results', viewed April 2017, <http://www.agriculture.gov.au/abares/publications/display?url=http://143.188.17.20/anrdl/DAFFService/display.php?fid=pb_auhbi9aas_20161208.xml>

the industry. To enable adequate coverage of all skills, this qualification has been increased from 16 to 18 units and the core has been increased from 12 to 13 units.

One form of additional income that is generated by some beekeepers is through wax processing, a work function that had not been formally identified in the previous units of competency. This resulted in a new unit being developed.

There were some differences in opinion about the addition of units of competency about Australian native bees in this sector. Australian native bees are used primarily for pollination services, research and training, but there is a small niche market in Australian native bee honey. It was suggested by some industry stakeholders that, while beekeepers might use Australian native bees in their business, native bees are not formally recognised in this sector as they are not of the *Apis* bee species. However, a number of beekeepers indicated that access to training about Australian native bees was necessary. In response to this identified need, an additional unit has been created under the *AHC Natural Resource Management (NRM)* sector for beekeepers who wish to access training.

Although the principles of managing bees have not changed significantly, there has been a shift in the technologies and materials used. These new technologies, such as the new on-hive honey extraction hives and synthetic frames and boxes, have been embedded into the units of competency, where appropriate.

Biosecurity issues were also raised during the review and this key aspect was made more prominent in relevant units of competency.

During the review issues about providing training to independent, amateur beekeepers was raised as a point of contention between the commercial beekeepers, the amateur beekeepers and the RTOs who deliver the training. The Basic Beekeeping Skill Set, while providing adequate training, does not provide a recognised qualification in introductory beekeeping. One RTO felt that there could be a need for a *Certificate II in Beekeeping* as a pre-employment or school-based option, to prepare individuals for entry into the sector. Some arguments were also raised for a higher-level qualification (*Certificate IV* or *Diploma*) in beekeeping. The main industry representatives were not generally supportive of any of these qualifications as, in the past, qualifications at these levels had been available but were not used. A project in the future may target this possible development.

Based on feedback received during consultation, *AHCBEK201 Support beekeeping work* has been recommended for deletion.

Decision being sought: One qualification and 21 units of competency be endorsed as part of the Case for Endorsement of the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0*. It should be noted that three new skill sets related to Australian native stingless bees, pollination services and queen bee breeding will be available in the Training Package when released.

3. Safe Operation Agriculture Machinery and New Technology Project

Skill description: Industry identified important units of competency that needed to be updated or created to incorporate the use of new technology and safety measures in all farm mobile machinery operations within the agriculture sector, including riding quad bikes, tractors, crop planting, two-wheel motorbikes and other specialised equipment. Knowledge about the following areas were noted as being of particular importance:

- associated risks and safety measures relating to farm mobile machinery operations
- serious risks of quad bikes, and particularly the risk of rollover when driving in steep and rocky terrain
- use of personal protective equipment and engineering controls to 'design out' hazards
- use of active riding techniques for quad bikes
- use of side-by-side utility vehicle driver skills
- use of good riding techniques for two-wheel motorbikes

- recognition of the importance of biosecurity.

Driver for this project: A total of 47 on-farm deaths and 61 non-fatal on-farm injury events were reported during January to September 2016. Quad bike-related injury accounted for over 50 per cent of all incidents, injuries and deaths. There were 17 additional quad bike-related injuries that occurred off-farm. These statistics have led to concerns over the safety of quad bikes.

A coronial inquest was held and called for the development of an improved and standardised nationally accredited training for the operation of quad bikes, side-by-side and related vehicles, and for the introduction of mandatory training, licensing or certification.

There is a social responsibility to continuously improve safety culture and contribute to reducing work-related injuries and fatalities in the sector's workplaces, and legislative requirements relate to this.

Work undertaken: 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 to farm business managers and include numerous agricultural service roles. This sector is a leader in the uptake of technology including the use of Geographical Information Systems (GIS) and Geographical Positioning Systems (GPS).

The focus of this project has been the review of the *Certificate III in Rural Machinery Operations* and the units of competency relating to the use of new technology and safety measures across a range of mobile farm machinery operations.

Industry advice received during the project has resulted in the following proposed changes.

- *AHC32618 Certificate III in Rural Machinery Operations* has been revised to align with current industry roles and work functions. There have been a number of units added to the listed elective to enable greater flexibility in achieving the qualification and to reflect the breadth of machinery used by the occupations that are serviced by this qualification.
- Two new units have been developed, one focussing on the operation of commercial lawnmowers and the other on the operation of tractors with attachments. The new tractor unit does not replace the existing *AHCMOM202 Operate tractors* as industry recommended keeping this existing unit as it applies to those who need training on operating less powerful tractors under direct supervision before they can safely move on to more complex vehicles.
- Industry feedback supported significant changes to *AHCMOM211 Operate side by side utility vehicles* and *AHCMOM212 Operate quad bikes*.

Decision being sought: One qualification and 37 units of competency be endorsed as part of the Case for Endorsement of the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0*.

4. Agriculture Chemical Handling Project

Skill description: The project focussed on skills for implementing spray programs, application of sprays, reading Global Harmonised System (GHS) labels and using safety data sheets (SDS), and calibration of spray equipment.

Driver for this project: Australia fully implemented the Global Harmonised System (GHS) under work health and safety laws on 1 January 2017, making mandatory that all chemicals be labelled and comply with GHS regulations.

The National Agvet Chemical Task Force working group (Minimum Training and Licensing Working Group) was tasked with harmonising the approach to chemical training requirements, including a review of state/territory based regulatory frameworks and future developments in managing spray drift risks. This new approach needed to be reflected in the updated chemical training.

Work undertaken: This sector has changed little in its operation and function. There is no formal qualification for this sector as chemical use is embedded into most of the AHC qualifications.

Emphasis on biosecurity issues was raised as a concern during the project. The units of competency where knowledge of biosecurity was essential have been strengthened to ensure this key element has been adequately covered.

Types of equipment or chemical application techniques were removed and replaced with generic statements, to allow for contextualisation of the units to specific industry chemical use sectors. For example, specific reference to “spray drift” which infers application of chemicals using spray equipment, was replaced with “off target” to better reflect other methods of chemical application, i.e. granular or meat baits, drenches etc.

Prerequisite requirements for some units were removed as the previous requirement related to state-based licensing or regulatory requirements which were not applicable in all contexts. Also, the prerequisites did not directly prepare individuals with the underpinning knowledge and skills needed to successfully complete the units they were in, for example, fumigants have unique storage and handling requirements that should not rely on generic chemical storage and transport units as prerequisites. Each unit affected was supplemented with additional content to ensure each unit was independent and could be adequately assessed through the assessment requirements.

Due to the removal of prerequisite requirements, some units of competency have been allocated new codes. Those qualifications that include affected units will be updated upon the release of *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0*. These changes are non-endorsable as the units of competency are in the elective banks of qualifications.

All units have been updated to reflect the *Standards for Training Packages 2012* and had minor changes to the Performance Criteria, Foundation Skills added, and Performance Evidence and Knowledge Evidence components clarified with more details provided in the Assessment Conditions.

Decision being sought: Twelve units of competency be endorsed as part of the Case for Endorsement of the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0*.

C. Evidence of Industry support

This section provides evidence that the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0* is supported by industry.

Support by IRC(s)

Members of the Amenity Horticulture, Landscaping, Conservation and Land Management IRC recorded their support for this submission in the Minutes of Meeting held on 10th May 2018.

Members of the Agriculture and Production Horticulture IRC recorded their support for this submission in the Minutes of Meeting held on 15th May 2018.

Please refer to Section I. IRC support for written evidence of support.

Consultation with stakeholders – All projects

During the development and review of the training package components, the following communication strategies were used for consultation with stakeholders.

- Project pages were set up on the Skills Impact website at the start of each of the projects with information about the project, together with progress updates. The project pages remained on the website throughout the projects. Visitors were invited to register their interest so that they received email alerts about the particular project of interest, for example, public consultation workshops, opportunities to provide feedback on draft materials. Links to the project pages are provided below.
 - Agriculture Chemical Handling Project – <https://www.skillsimpact.com.au/agriculture/training-package-projects/ag-chemical-handling-project/>
 - Pest Management Project - <http://www.skillsimpact.com.au/horticulture-conservation-and-land-management/training-package-projects/pest-management-project/>
 - Safe Operation Agriculture Machinery and New Technology - <https://www.skillsimpact.com.au/agriculture/training-package-projects/ag-machinery-safety-technology-project/>
 - Apiculture (Bees) Project - <https://www.skillsimpact.com.au/agriculture/training-package-projects/apiculture-bees-project/>
- Separate face-to-face subject matter expert meetings for all four projects were convened in Sydney and teleconference details provided for those unable to attend in person.
- Public consultation and feedback workshops were held around Australia concurrently for all four projects in Bendigo, Perth, Darwin, Brisbane, Adelaide, Launceston and Orange. This was purposely planned to enable as many industry stakeholders as possible to review and comment on the projects.
- Emails and newsletters were sent to state and territory training authorities (STAs/TTAs), VET regulators and other stakeholders to keep them informed of the project's progress.
- Draft materials were hosted on the Skills Impact website for a four-week period, with an additional two-week period for validation of final drafts. Stakeholders were able to provide feedback via online questionnaires, emails or telephone calls.
- A webinar was provided on two separate occasions with the Queensland Agriculture Industry Sector Panel covering the Agriculture and Horticulture sectors. The event was organised by Julie Nitschke, LMA Coordinator for South West Region, TAFE Queensland on the 12th and 19th February 2018. One of the agenda items for this meeting was for Skills Impact to provide an update on the work currently undertaken on the Pest Management, Agriculture Chemical Handling and Safe Operation Agriculture Machinery and New Technology Projects. Attendees from industry and training had an opportunity to ask questions and provide feedback on the changes adopted at that point in the projects.

Please refer to **Appendix 2: Industry support** for a detailed list of activities conducted, together with organisations and individuals consulted for each of the above projects.

State/Territory engagement

Workshops were conducted throughout Australia to gain industry feedback on all aspects of the Pest Management, Chemical Handling, Apiculture and Agricultural Machinery qualifications, skill sets and units of competency.

A wide range of stakeholders have been engaged across Australia and from all states and territories other than the ACT. Stakeholders have included national and state based industry associations, government departments, peak national committees, union, enterprises, key training providers and a range of individuals who are considered to be subject matter experts.

Please refer to **Appendix 2: Industry support** for a list of activities conducted, together with organisations and individuals consulted.

D. Industry expectations about training delivery

This section explains the advice provided in the Companion Volume Implementation Guide for the *AHC Agriculture, Horticulture and Conservation, and Land Management Training Package*, together with recommendations for delivery of qualifications as traineeships/apprenticeships.

Training delivery

The creation of the *AHC Agriculture, Horticulture and Conservation, and Land Management Training Package V3.0* has resulted in the following changes to units of competency and qualifications:

Chemicals

The chemical skill sets and individual units of competency, particularly those units commonly used by regulators as a means of granting licences or permission to use chemicals, have been designed with a focus on a hands-on delivery model as the preferred method for delivery. This has been done to reduce the risk of poor training found in some of the currently used online delivery and assessment methods. The SME group are confident that the reviewed units of competency have sufficient rigor built in to support high quality training and assessment.

Apiculture (Bees)

The review process identified the need for training and assessment of the *Certificate III in Beekeeping* be delivered either on the job in an active live apiary or in a training environment with live bees. It was considered that trainees should be exposed to live bee hives since the outcomes are based on safe access, manipulation and management of bees. Advice received during consultation indicated that appropriate levels of skills and knowledge can only be acquired through intimate interaction with live bees.

Individuals undertaking this qualification could be engaged by a commercial operator, be exposed to bees and hives in a training environment or possess hives of their own.

When discussing the time length of training required to achieve the qualification, the working group offered the opinion that this was greatly influenced by the individuals learning capability following the principles of competency-based training. It was estimated that a minimum of 12 months would seem appropriate for an individual to be exposed to bees over a seasonal period and built the confidence to handle bees under different seasonal influences such as nectar flows, temperature fluctuations and season brood and colony development.

Pest Control

Delivery and assessment for the *Certificate III in Rural and Environmental Pest Management* requires a practical hands on training environment. Many of the units are tactile and practical in their design and will require physical resources and practical activities to build, develop and practice skills prior to assessment.

Depending on the specialisation selected these skills may involve the use of specialised equipment in varying locations and environments.

Agricultural Machinery

It is envisaged that *AHC31918 Certificate III in Rural Machinery Operations* would be delivered either off-the-job or on-the-job with access to the types of machinery and equipment that are present in the typical agricultural workplace. The recommended volume of learning for this qualification is 1 to 2 years.

Companion Volume Implementation Guide

The companion volume details information that covers key industry expectations about:

- qualifications suitable for vocational education and training delivered to secondary students
- qualifications suitable for delivery as apprenticeships or traineeships
- amount of training/volume of learning requirements to ensure that the individual can gain the necessary skills and knowledge
- key legislative requirements
- essential knowledge requirements.

Delivery as apprenticeship/traineeship

The following qualifications are suitable and recommended for delivery as either a traineeship or apprenticeship:

- AHC31818 Certificate III in Beekeeping,
- AHC31918 Certificate III in Rural Machinery Operations and
- AHC30318 Certificate III in Rural and Environmental Pest Management.

E. Implementation of the training package components

This section explains how the training package meets occupational and/or licensing requirements and identifies particular implementation issues and strategies to manage these issues.

Meeting occupational and licensing requirements

Chemicals

Licensing for the use of specific chemicals, particularly Schedule 7 chemicals, is a requirement in most states/territories for commercial pest control operators. Different states/territories have different requirements for owner operators. A national chemical use harmonisation program is currently aiming to resolve these disparities between states. At the time of writing no national approach has been achieved.

The application section of units of competency covering the transport, handling and use of chemicals directs users to check with their specific state or territory authority for the current regulatory requirement.

Beekeeping

No licences are specified for an individual to be a beekeeper. However, beekeepers who own bee hives may be required to register as a beekeeper with hives with the relevant government department.

Food handling regulations and standards also apply to many of the units of competency where honey or other bee products are used for food.

The application section of relevant units of competency directs users to check with their specific state or territory authority for the current regulatory requirement.

Pest Control

Licensing as a commercial pest controller is regulated in most states and territories and registration or licensing is a requirement. Specific licensing is also required for some units of competency, such as firearms licence. Where licences are required, particularly for the handling of Schedule 7 chemicals and baits, the application section of the unit of competency states that users are to refer their specific state or territory authority for the current regulatory requirement.

Licensing statements

Licensing statements are included in the application section of units of competency, where relevant, as shown in the following examples.

- Some units of competency covering chemical handling and pest management include, "State or territory licensing, legislative or certification requirements apply in some jurisdictions."
- Some units of competency covering safe operation of agricultural machinery include, "Vehicle must be operated according to relevant state/territory licensing authority vehicle licence requirements and regulations."
- Some beekeeping units of competency include either, "State and Territory legislation, regulations and Local Government by-laws apply in some jurisdictions to beehive ownership and compliance with biosecurity codes of practice and notifiable pests and diseases."
- Some beekeeping units of competency include, "The transport, siting and cross border movement of livestock including bee hives must comply with State and Territory transport, quarantine and biosecurity legislation, regulations and codes of practice."

Where no occupational and licensing requirements apply, the following statement is used: "*No occupational licensing, legislative or certification requirements apply to this unit at the time of publication*".

There is detailed information about current legislative requirements in the Companion Volume Implementation Guide, so that it can be quickly updated when required.

Implementation issues and management strategies

Chemicals

Few implementation issues were raised for the delivery of the skill sets or the units of competency except by training organisations who deliver training online or in remote environments where access to some equipment and resources may not physically exist. For example, a trainee on a remote farm could have difficulty in accessing a compliant chemical store, so it was suggested that this provided an opportunity for the trainee to demonstrate competency in developing a compliant store on the farm.

A further concern was raised about actually loading and transporting chemicals which is a requirement of the performance criteria. Since this was the focus of the unit, industry felt that these skills needed be demonstrated, particularly safely arranging and loading different and incompatible chemicals. It was suggested that loading and unloading of a simulated truck or ute would demonstrate the required lifting techniques, arrangement of the load and securing the load, as the act of driving the vehicle is not the focus.

The updating of 22 AHC qualifications that have the chemical units with prerequisites incorporated within their electives have been updated as a minor change as none of these units were within the core of any of the reviewed qualifications. There is no impact to the outcome of the qualifications and therefore the qualifications remain as equivalent and this will also lessen any financial impact to RTOs when reviewing the changes implemented within this project. At the same time all other units were checked including imported units and where required these have been changed under the direction and approval of the appropriate IRC as minor changes. The exception is *AHC40516 Certificate IV in Parks and Gardens* which has an imported unit within the core; *PSPPM402B Manage simple projects*. This unit has been deleted on training.gov.au. It is therefore recommended that this unit remains within the qualification until a full review can be undertaken as part of the next round of AHC projects during the next financial year.

Beekeeping

One RTO expressed concern about the increase of the Certificate III in Beekeeping from 16 to 18 units and the inclusion of the following units in the core of the qualification:

- Assemble and maintain beekeeping components
- Transport bee hives by road to new apiary site
- Select and establish an apiary site.

The rationale for the concern was an increase in costs to learners in having to achieve two more units. The RTO also considered the three core units should be listed as electives, as not all beekeepers perform the tasks covered by these units.

The RTO's concerns were considered by industry representatives during an SME meeting and the majority supported the increased size of the qualification and retaining the units as core, on the basis that a person that a person who achieves the Certificate III in Beekeeping should acquire broad and deep range of beekeeping skills to work effectively within the industry.

Pest Control

Few delivery issues were raised for the qualification. There was feedback that the requirement to demonstrate some specific skills could be difficult and might contravene current poisons regulations and animal welfare laws. For example, with the unit *Use firearms to euthanise animals*, a training organisation felt that trainees should not have to destroy live animals as part of their training and assessment. When working on the job, demonstration of this skill can be achieved in the field with live pest animals. This would be after initial instruction and practice on targets simulating the humane animal kill points of the animals which could be performed off the job.

Handling and inoculating poison baits with toxins was another aspect that raised concern. In most states this practice is carried out by licenced operators or government agencies. Units of competency where this was a concern refer the users back to the state or territory legislation, and a simulated procedure using benign materials can be assessed.

F. Quality assurance reports

Skills Impact declares that the proposed components of the *AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0* meets the requirements of the *Standards for Training Packages 2012* and the *Training Package Development and Endorsement Process Policy*.

The table below provides a statement of evidence that the components meet the Training Package Quality Principles.

Principle	Evidenced by:
1. Reflect identified workforce outcomes	<ul style="list-style-type: none"> ▪ Changes demonstrate a clear link back to relevant AISC decisions commissioning the work and the Case for Change ▪ Training package components are compliant with the <i>Standards for Training Packages 2012</i>, the <i>Training Package Products Policy</i> and the <i>Training Package Development and Endorsement Process Policy</i> ▪ Open and inclusive consultation and validation commensurate with scope and impact has been conducted.
2. Support portability of skills and competencies including reflecting licensing and regulatory requirements	<ul style="list-style-type: none"> ▪ Identification of skill sets that respond to client needs ▪ Other national and international standards for skills are considered.
3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry	<ul style="list-style-type: none"> ▪ Active engagement across industry has sought to achieve a national consensus about the advice provided to the AISC.
4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces	<ul style="list-style-type: none"> ▪ Qualifications can be applied in a range of contexts, such as vocational education and training delivered to secondary students, apprenticeships and traineeships. ▪ Prerequisites have been minimised but are used to ensure that learners have the necessary knowledge and skills to complete the unit of competency safely and effectively.
5. Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors	<ul style="list-style-type: none"> ▪ Qualifications in this training package support the progression of an individual through school and vocational education sectors, and information about progression is provided in the Implementation Guide.
6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements	<ul style="list-style-type: none"> ▪ Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth ▪ Compliance with the TPCMS/National Register requirements for publication ▪ Implementation advice is provided in one companion volume: <i>AHC Agriculture, Horticulture and Conservation and Land Management Implementation Guide</i> and is ready for publication at the same time as the Training Package.

The declaration and statement of evidence is confirmed by the independent Quality Report which is provided in **Appendix 4: Quality Report**.

The *AHC Agriculture, Horticulture and Conservation and Land Management Implementation Guide*, has been quality assured through Skills Impact quality processes.

G. Implementation of COAG Industry Skills Council reforms to training packages

The decision being sought from the AISC would support the COAG Industry and Skills Council reforms to training packages.

Chemicals

The units of competency in these skill sets are fully transferable to many industries where chemicals are used or sold. Higher level units have transferable management and planning skillsets that can be applied to most industries.

Beekeeping

The existing endorsed *AHCBEK201 Support beekeeping work* is being deleted based on industry advice that the outcomes of this unit are embedded in several other core units in the Certificate III in Beekeeping.

The beekeeping industry expects that a person that achieves the Certificate III in Beekeeping acquire broad and deep range of beekeeping skills to work effectively within the industry. The design of the qualification reflects this with 13 of the 18 units required being specific beekeeping units (coded AHCBEK).

The listed electives of the Certificate III in Beekeeping include:

- several electives from other sectors of the AHC Training Package that will enable learners to gain credit into other AHC qualifications
- elective units from the BSB, FBP, HLT and TLI Training Packages that enable learners to gain credit into other qualifications from these Training Packages.

It is expected the new unit *AHCNRM301 Establish an Australian native stingless bee colony* will be taken up as an elective in qualifications by learners in the beekeeping industry, agriculture, horticulture, permaculture and natural resource management and is also in *AHCSS00076 Australian native stingless bees skill set*.

The creation of three new skill sets have been designed to develop specialist knowledge in bee husbandry with Australian native stingless bees, queen bee breeding and beekeeping and business skills in pollination services in order to create pathways for specialist beekeepers.

Pest Control

While the qualification has many specific pest management units it is also comprised of units from other Agriculture and Horticulture sectors. Transferability of many of the units provide opportunity for individuals with existing qualifications in Agriculture or Horticulture to gain additional qualifications in Pest Management through transfer and recognition of existing units. Individuals can also gain further specialisations in pest management by completing additional units within the same qualification.

Agriculture Machinery

AHC32618 Certificate III in Rural Machinery Operations has been designed to align with current industry roles and work functions. There have been a number of units added to the elective units list to enable greater flexibility in achieving the qualification and to reflect the breadth of machinery used by the occupations that are serviced by this qualification. There are no entrance requirements for this qualification.

The units in this project have been developed to enable use by multiple industry sectors. The qualification has relied on units currently in the system to ensure that there is no duplication of current units of competency and to enable the recognition of skills for workers transitioning from other industries into the agricultural industry and between sectors in the agricultural industry.

Completion of the training package development work, together with extensive consultation with relevant stakeholders, confirms that the submission:

- does not duplicate existing qualifications or units of competency
- explains how it meets industry's expectations of training
- explains how qualifications have been designed to align with current industry roles and work functions
- includes the removal of one unit of competency that industry has deemed to be obsolete.

H. Evidence of completion

Skills Impact confirms that the proposed components of the *AHC Agriculture, Horticulture and Conservation, and Land Management Training Package V3.0* has been completed according to the work assigned by the AISC in the Business Case and the subsequent Activity Order.

Evidence that training package component(s) are prepared for publication

The Quality Report provides confirmation that the draft components meet the *Standards for Training Packages 2012*.

All components have been created to comply with the National Register requirements for publication. The **Mapping Summary** provided in **Appendix 1 Components for endorsement** provides details of the changes to the training package components that are required to allow them to be published on the National Register.

I. IRCs support

The Amenity Horticulture, Landscaping, Conservation and Land Management IRC supports the submission of the Agriculture Chemical Handling training package components detailed in this Case for Endorsement.

Signed for and on behalf of the Amenity Horticulture, Landscaping, Conservation and Land Management IRC by its appointed Chair.

Name of Chair:

Christina O'Connell

Signature of Chair:



Date:

28 JUNE 2018

The Agriculture and Production Horticulture IRC supports the submission of the Pest Management, Apiculture (Bees) and the Safe Operation Agriculture Machinery and New Technology training package components detailed in this Case for Endorsement.

Signed for and on behalf of the Agriculture and Production Horticulture IRC by its appointed Chair.

Name of Chair:

Sharyn Casey

Signature of Chair:



Date:

28/6/18

Appendix 1: Components for endorsement

a. List of qualification titles and codes

AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0	
Code	Title
AHC30318	Certificate III in Rural and Environmental Pest Management
AHC31818	Certificate III in Beekeeping
AHC31918	Certificate III in Rural Machinery Operations

b. List of unit titles and codes and associated assessment requirements

Units of competency in the AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0	
Code	Title
AHCBEK203	Open and reassemble a beehive
AHCBEK205	Prepare and use a bee smoker
AHCBEK206	Assemble and maintain beekeeping components
AHCBEK301	Manage honey bee swarms
AHCBEK302	Manipulate honey bee brood
AHCBEK303	Re-queen a honey bee colony
AHCBEK304	Remove a honey crop from a hive
AHCBEK307	Collect and store propolis
AHCBEK308	Produce and harvest royal jelly
AHCBEK309	Trap and store pollen
AHCBEK310	Process raw wax into moulds
AHCBEK311	Transport bee hives by road to new apiary site
AHCBEK312	Extract honey
AHCBEK313	Manage pests and disease within a honey bee colony
AHCBEK402	Perform queen bee artificial insemination
AHCBEK405	Select and establish an apiary site
AHCBEK408	Provide bee pollination services

Units of competency in the AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0

Code	Title
AHCBEK409	Rear queen bees
AHC BIO201	Inspect and clean machinery for plant, animal and soil material
AHC BIO305	Apply biosecurity measures
AHCCHM101	Follow basic chemical safety rules
AHCCHM201	Apply chemicals under supervision
AHCCHM304	Transport and store chemicals
AHCCHM306	Prepare and apply chemicals for hand held application equipment
AHCCHM307	Prepare and apply chemicals to control pest, weeds and diseases
AHCCHM308	Use application equipment to apply fumigant in confined spaces
AHCCHM309	Fumigate soil
AHCCHM310	Conduct manual fumigation of vertebrate and invertebrate pests
AHCCHM403	Prepare safe operating procedures for calibration of equipment
AHCCHM404	Develop procedures to minimise risks in the use of chemicals
AHCCHM405	Plan and implement a chemical use program
AHCCHM501	Develop and manage a chemical use strategy
AHCEXP301	Handle and store explosives
AHCFAU201	Recognise fauna
AHCINF201	Carry out basic electric fencing operations
AHCINF202	Install, maintain and repair farm fencing
AHCMOM101	Assist with routine maintenance of machinery and equipment
AHCMOM201	Operate two wheel motorbikes
AHCMOM202	Operate tractors
AHCMOM203	Operate basic machinery and equipment
AHCMOM204	Undertake operational maintenance of machinery
AHCMOM205	Operate vehicles
AHCMOM206	Conduct grader operations

Units of competency in the AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0

Code	Title
AHCMOM207	Conduct front-end loader operations
AHCMOM208	Conduct excavator operations
AHCMOM209	Conduct dozer operations
AHCMOM210	Conduct scraper operations
AHCMOM213	Operate and maintain chainsaws
AHCMOM214	Operate cane haulage vehicle
AHCMOM215	Operate commercial lawnmowers
AHCMOM216	Operate side by side utility vehicles
AHCMOM217	Operate quad bikes
AHCMOM301	Coordinate machinery and equipment maintenance and repair
AHCMOM302	Perform machinery maintenance
AHCMOM304	Operate machinery and equipment
AHCMOM305	Operate specialised machinery and equipment
AHCMOM306	Ground spread fertiliser and soil ameliorant
AHCMOM307	Operate a cane harvester
AHCMOM308	Operate broadacre and row crop harvest machinery and equipment
AHCMOM309	Operate broadacre sowing machinery and equipment
AHCMOM310	Operate land-forming machinery and equipment
AHCMOM311	Operate precision control technology
AHCMOM312	Operate row crop planting and seeding machinery and equipment
AHCMOM313	Operate mobile irrigation machinery and equipment
AHCMOM314	Transport machinery
AHCMOM315	Operate chemical application machinery and equipment
AHCMOM316	Refuel machinery or vehicle
AHCMOM317	Operate tractors with attachments
AHCMOM401	Conduct major repair and overhaul of machinery and equipment

Units of competency in the AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0

Code	Title
AHCMOM402	Supervise maintenance of property, machinery and equipment
AHCMOM501	Manage machinery and equipment
AHCMOM502	Implement a machinery management system
AHCMOM601	Analyse machinery options
AHCNAR306	Conduct photography for fieldwork
AHCNAR307	Read and interpret maps
AHCNRM301	Establish an Australian native stingless bee colony
AHCPCM202	Collect, prepare and preserve plant specimens
AHCPCM303	Identify plant specimens
AHCPMG201	Treat weeds
AHCPMG202	Treat plant pests, diseases and disorders
AHCPMG203	Work effectively in a pest management environment
AHCPMG301	Control weeds
AHCPMG302	Control plant pests, diseases and disorders
AHCPMG304	Use firearms to humanely destroy animals
AHCPMG305	Survey pests
AHCPMG306	Determine pest control techniques
AHCPMG307	Apply animal trapping techniques
AHCPMG308	Implement pest management strategies
AHCPMG309	Apply pest animal control techniques
AHCPMG311	Use firearms for pest control activities from aircraft
AHCPMG312	Apply poison baits for vertebrate pest control in rural and environmental landscapes
AHCPMG313	Prepare, monitor and maintain biological agents for weeds
AHCPMG409	Implement a pest management plan
AHCPMG412	Develop a pest management plan
AHCPMG413	Define the pest problem

Units of competency in the AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0	
Code	Title
AHCWRK302	Monitor weather conditions
AHCWRK306	Comply with industry quality assurance requirements
AHCWRK308	Handle bulk materials in storage area
AHCWRK312	Operate in isolated and remote situations

c. Skill sets (not for endorsement)

Skill sets in the AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0	
Code	Title
AHCSS00072	Pest Management Planning Skill Set
AHCSS00073	Advanced Chemical Spray Application Skill Set
AHCSS00074	Agricultural Chemical Skill Set
AHCSS00075	Basic Beekeeping Skill Set
AHCSS00076	Australian Native Stingless Bees Skill Set
AHCSS00077	Pollination Services Skill Set
AHCSS00078	Queen Bee Breeding Skill Set

d. Credit arrangements

Credit arrangements for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0		
Qualification Code	Qualification Title	Credit Arrangement Details
AHC30318	Certificate III in Rural and Environmental Pest Management	At the time of endorsement of this training package, no national credit arrangements exist.
AHC31818	Certificate III in Beekeeping	At the time of endorsement of this training package, no national credit arrangements exist.
AHC31918	Certificate III in Rural Machinery Operations	At the time of endorsement of this training package, no national credit arrangements exist.

e. Mapping information

Qualifications

Mapping of qualifications for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHC32016 Certificate III in Beekeeping	AHC31818 Certificate III in Beekeeping	Redesigned qualification Packaging rules changed. Units added and removed from core and electives	No equivalent qualification
AHC32616 Certificate III in Rural Machinery Operations	AHC31918 Certificate III in Rural Machinery Operations	Version created to add a unit to the core and update elective units of competency and imported unit codes.	No equivalent qualification
AHC33616 Certificate III in Pest Management	AHC30318 Certificate III in Rural and Environmental Pest Management	Change to Core units and introduction of specialisation streams. Title change to differentiate from Urban Pest Management	No equivalent qualification

Skill sets

Mapping of skill sets for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCSS00026 Advanced Chemical Spray Application Skill Set	AHCSS00073 Advanced Chemical Spray Application Skill Set	Minor editing changes	Equivalent skill set
AHCSS00027 Agricultural Chemical Skill Set	AHCSS00074 Agricultural Chemical Skill Set	Minor editing changes	Equivalent skill set
AHCSS00028 Basic beekeeping skill set	AHCSS00075 Basic Beekeeping Skill Set	Minor editing changes	Equivalent skill set
AHCSS00043 Vertebrate Pest Management Planning Skill Set	AHCSS00072 Pest Management Planning Skill Set	Minor editing changes	Equivalent skill set
Not applicable	AHCSS00076 Australian Native Stingless Bees Skill Set	New	No equivalent skill set
Not applicable	AHCSS00077 Pollination Services Skill Set	New	No equivalent skill set
Not applicable	AHCSS00078 Queen Bee Breeding Skill Set	New	No equivalent skill set

Units of competency

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCBEK201 Support beekeeping work	Not applicable	Deleted	Not applicable
AHCBEK202 Use a bee smoker	AHCBEK205 Prepare and use a bee smoker	Minor change to title Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK203 Open and reassemble a beehive Release 1	AHCBEK203 Open and reassemble a beehive Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK204 Construct and repair beehives	AHCBEK206 Assemble and maintain beekeeping components	Minor change to Title and Elements to reflect current industry terminology Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK301 Manage honey bee swarms Release 1	AHCBEK301 Manage honey bee swarms Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK302 Manipulate honey bee brood Release 1	AHCBEK302 Manipulate honey bee brood Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK303 Re-queen a honey bee colony Release 1	AHCBEK303 Re-queen a honey bee colony Release 2	Minor changes to Elements and Performance Criteria for clarity	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
		Updated Performance Evidence and Knowledge Evidence	
AHCBEK304 Remove a honey crop from a hive Release 1	AHCBEK304 Remove a honey crop from a hive Release 2	Minor changes to Elements and Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK305 Extract honey	AHCBEK312 Extract honey	Addition of Elements and Performance criteria to reflect industry standards Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	No equivalent unit
AHCBEK306 Manage pests and disease within a honey bee colony	AHCBEK313 Manage pests and disease within a honey bee colony	Changes and additions to Elements and Performance Criteria for clarity and to meet current biosecurity requirements	No equivalent unit
AHCBEK401 Collect and store propolis	AHCBEK307 Collect and store propolis	Code changed to reflect AQF alignment Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK402 Perform queen bee artificial insemination Release 1	AHCBEK402 Perform queen bee artificial insemination Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK403 Produce and harvest royal jelly	AHCBEK308 Produce and harvest royal jelly	Code changed to reflect AQF alignment Minor changes to Performance Criteria for clarity	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
		Updated Performance Evidence and Knowledge Evidence	
AHCBEK404 Provide bee pollination services	AHCBEK408 Provide bee pollination services	Added Element to unit Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	No equivalent unit
AHCBEK405 Select and establish an apiary site Release 1	AHCBEK405 Select and establish an apiary site Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK406 Trap and store pollen	AHCBEK309 Trap and store pollen	Code changed to reflect AQF alignment Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCBEK407 Rear queen bees	AHCBEK409 Rear queen bees	Split Element 1 into two for clarity, added new element on packaging queen bees Changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	No equivalent unit
Not Applicable	AHCBEK310 Process raw wax into moulds	New Unit	No equivalent unit
Not applicable	AHCBEK311 Transport bee hives by road to new apiary site	New unit	No equivalent unit
AHC BIO201 Inspect and clean machinery for plant, animal and soil material Release 1	AHC BIO201 Inspect and clean machinery for plant, animal and soil material Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHC BIO305 Apply biosecurity measures Release 1	AHC BIO305 Apply biosecurity measures Release 2	Changes to Elements and Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHC CHM101 Follow basic chemical safety rules Release 1	AHC CHM101 Follow basic chemical safety rules Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHC CHM201 Apply chemicals under supervision Release 1	AHC CHM201 Apply chemicals under supervision Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHC CHM301 Use application equipment to apply fumigant in enclosed spaces	AHC CHM308 Use application equipment to apply fumigant in enclosed spaces	Change to sequencing of Elements and Performance Criteria and editing changes for clarity Removal of prerequisite units Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHC CHM302 Fumigate soil	AHC CHM309 Fumigate soil	Removal of prerequisite units Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHC CHM303 Prepare and apply chemicals	AHC CHM307 Prepare and apply chemicals to control pest, weeds and diseases	Minor change of title for clarity Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCCHM304 Transport and store chemicals Release 1	AHCCHM304 Transport and store chemicals Release 2	Changes to Performance Criteria for clarity Consolidated where content duplicated. Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCCHM305 Conduct manual fumigation of vertebrate and invertebrate pests	AHCCHM310 Conduct manual fumigation of vertebrate and invertebrate pests	Minor changes to Performance Criteria for clarity Removal of prerequisite units Consolidated and deleted duplication Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCCHM306 Prepare and apply chemicals for hand held application equipment Release 1	AHCCHM306 Prepare and apply chemicals for hand held application equipment Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCCHM401 Develop procedures to minimise risks in the use of chemicals	AHCCHM404 Develop procedures to minimise risks in the use of chemicals	Changes to Performance Criteria for clarity Removal of prerequisite units Added PC's in Element 1 and Element 4 Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCCHM402 Plan and implement a chemical use program	AHCCHM405 Plan and implement a chemical use program	Changes to Performance Criteria for clarity and added PC in Element 6 Removal of prerequisite units Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCCHM403 Prepare safe operating procedures for calibration of equipment Release 1	AHCCHM403 Prepare safe operating procedures for calibration of equipment Release 2	Changes to Performance Criteria for clarity Removed PCs 1.1 and 2.4 Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCCHM501 Develop and manage a chemical use strategy Release 1	AHCCHM501 Develop and manage a chemical use strategy Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCEXP301 Handle and store explosives Release 1	AHCEXP301 Handle and store explosives Release 2	Minor changes to Performance Criteria for clarity Updated Performance evidence and Knowledge Evidence	Equivalent unit
AHCFAU201 Recognise fauna Release 1	AHCFAU201 Recognise fauna Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCINF201 Carry out basic electric fencing operations Release 2	AHCINF201 Carry out basic electric fencing operations Release 3	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCINF202 Install, maintain and repair farm fencing Release 2	AHCINF202 Install, maintain and repair farm fencing Release 3	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCMOM101 Assist with routine maintenance of machinery and equipment Release 2	AHCMOM101 Assist with routine maintenance of machinery and equipment Release 3	Minor changes to performance criteria and range of conditions.	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCMOM201 Operate two wheel motorbikes Release 1	AHCMOM201 Operate two wheel motorbikes Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM202 Operate tractors Release 2	AHCMOM202 Operate tractors Release 3	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM203 Operate basic machinery and equipment Release 1	AHCMOM203 Operate basic machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM204 Undertake operational maintenance of machinery Release 1	AHCMOM204 Undertake operational maintenance of machinery Release 2	Minor changes to performance criteria and range of conditions.	Equivalent unit
AHCMOM205 Operate vehicles Release 1	AHCMOM205 Operate vehicles Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM206 Conduct grader operations Release 1	AHCMOM206 Conduct grader operations Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM207 Conduct front-end loader operations Release 1	AHCMOM207 Conduct front-end loader operations Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM208 Conduct excavator operations Release 1	AHCMOM208 Conduct excavator operations Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM209 Conduct dozer operations Release 1	AHCMOM209 Conduct dozer operations Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM210 Conduct scraper operations Release 1	AHCMOM210 Conduct scraper operations Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM211 Operate side by side utility	AHCMOM216 Operate side by side utility	Significant changes to performance criteria,	No Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0			
Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
vehicles	vehicles	foundation skills and range of conditions.	
AHCMOM212 Operate quad bikes	AHCMOM217 Operate quad bikes	Significant changes to performance criteria, foundation skills and range of conditions.	No Equivalent unit
AHCMOM213 Operate and maintain chainsaws Release 1	AHCMOM213 Operate and maintain chainsaws Release 2	Minor changes to performance criteria and range of conditions.	Equivalent unit
AHCMOM214 Operate cane haulage vehicle Release 1	AHCMOM214 Operate cane haulage vehicle Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
Not applicable	AHCMOM215 Operate commercial lawnmowers	New unit	No Equivalent unit
AHCMOM301 Coordinate machinery and equipment maintenance and repair Release 1	AHCMOM301 Coordinate machinery and equipment maintenance and repair Release 2	Minor changes to performance criteria and range of conditions.	Equivalent unit
AHCMOM302 Perform machinery maintenance Release 1	AHCMOM302 Perform machinery maintenance Release 2	Minor changes to performance criteria and range of conditions.	Equivalent unit
AHCMOM304 Operate machinery and equipment Release 1	AHCMOM304 Operate machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM305 Operate specialised machinery and equipment Release 1	AHCMOM305 Operate specialised machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM306 Ground spread fertiliser and soil ameliorant Release 1	AHCMOM306 Ground spread fertiliser and soil ameliorant Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM307 Operate a cane harvester Release 1	AHCMOM307 Operate a cane harvester Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCMOM308 Operate broadacre and row crop harvest machinery and equipment Release 1	AHCMOM308 Operate broadacre and row crop harvest machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM309 Operate broadacre sowing machinery and equipment Release 1	AHCMOM309 Operate broadacre sowing machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM310 Operate land-forming machinery and equipment Release 1	AHCMOM310 Operate land-forming machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM311 Operate precision control technology Release 1	AHCMOM311 Operate precision control technology Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM312 Operate row crop planting and seeding machinery and equipment Release 1	AHCMOM312 Operate row crop planting and seeding machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM313 Operate mobile irrigation machinery and equipment Release 1	AHCMOM313 Operate mobile irrigation machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM314 Transport machinery Release 1	AHCMOM314 Transport machinery Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM315 Operate chemical application machinery and equipment Release 1	AHCMOM315 Operate chemical application machinery and equipment Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit
AHCMOM316 Refuel machinery Release 1	AHCMOM316 Refuel machinery Release 2	Minor changes to performance criteria, foundation skills and range of conditions.	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
Not applicable	AHCMOM317 Operate tractors with attachments	New unit	No Equivalent unit
AHCMOM401 Conduct major repair and overhaul of machinery and equipment Release 1	AHCMOM401 Conduct major repair and overhaul of machinery and equipment Release 2	Minor changes to performance criteria and range of conditions.	Equivalent unit
AHCMOM402 Supervise maintenance of property, machinery and equipment Release 1	AHCMOM402 Supervise maintenance of property, machinery and equipment Release 2	Minor changes to performance criteria, and foundation skills.	Equivalent unit
AHCMOM501 Manage machinery and equipment Release 1	AHCMOM501 Manage machinery and equipment Release 2	Minor changes to performance criteria, and foundation skills.	Equivalent unit
AHCMOM502 Implement a machinery management system Release 1	AHCMOM502 Implement a machinery management system Release 2	Minor changes to performance criteria, and foundation skills.	Equivalent unit
AHCMOM601 Analyse machinery options Release 1	AHCMOM601 Analyse machinery options Release 2	Minor changes to performance criteria, and foundation skills.	Equivalent unit
AHCNAR306 Conduct photography for fieldwork Release 1	AHCNAR306 Conduct photography for fieldwork Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCNAR307 Read and interpret maps Release 1	AHCNAR307 Read and interpret maps Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
Not applicable	AHCNRM301 Establish an Australian native stingless bee colony	New Unit	No equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCPM202 Collect, prepare and preserve plant specimens Release 1	AHCPM202 Collect, prepare and preserve plant specimen Release 2	Changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPM303 Identify plant specimens Release 1	AHCPM303 Identify plant specimens Release 2	Changes to Elements and Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG201 Treat weeds Release 1	AHCPMG201 Treat weeds Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG202 Treat plant pests, diseases and disorders Release 1	AHCPMG202 Treat plant pests, diseases and disorders Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG203 Work effectively in a pest management environment Release 1	AHCPMG203 Work effectively in a pest management environment Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG301 Control weeds Release 2	AHCPMG301 Control weeds Release 3	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG302 Control plant pests, diseases and disorders Release 2	AHCPMG302 Control plant pests, diseases and disorders Release 3	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG304 Use firearms to humanely	AHCPMG304 Use firearms to humanely	Minor changes to Performance Criteria for	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
destroy animals Release 1	destroy animals Release 2	clarity Updated Performance Evidence and Knowledge Evidence	
AHCPMG305 Survey pests Release 1	AHCPMG305 Survey pests Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG306 Determine pest control techniques Release 1	AHCPMG306 Determine pest control techniques Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG307 Apply animal trapping techniques Release 1	AHCPMG307 Apply animal trapping techniques Release 2	Minor changes and removal of unnecessary Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG308 Implement pest management strategies Release 1	AHCPMG308 Implement pest management strategies Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG309 Apply pest animal control techniques Release 1	AHCPMG309 Apply pest animal control techniques Release 2	Minor changes to consolidate Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG310 Prepare, monitor and maintain biological agents	AHCPMG313 Prepare, monitor and maintain biological agents for weeds	Minor change of title for clarity Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCPMG311 Use firearms for pest control activities from aircraft Release 1	AHCPMG311 Use firearms for pest control activities from aircraft Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
Not applicable	AHCPMG312 Apply poison baits for vertebrate pest control in rural and environmental landscapes	New Unit	No equivalent unit
AHCPMG409 Implement a pest management plan Release 1	AHCPMG409 Implement a pest management plan Release 2	Updated to meet Standards for Training Packages Minor changes to Performance Criteria for clarity	Equivalent unit
AHCPMG412 Develop a pest management plan Release 1	AHCPMG412 Develop a pest management plan Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCPMG413 Define the pest problem Release 1	AHCPMG413 Define the pest problem Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCWRK203 Operate in isolated and remote situations	AHCWRK312 Operate in isolated and remote situations	Minor changes to Performance Criteria for clarity Code changed to reflect AQF alignment Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCWRK302 Monitor weather conditions Release 1	AHCWRK302 Monitor weather conditions Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Mapping of units of competency for AHC Agriculture, Horticulture, Landscaping, Conservation and Land Management Training PackageV3.0

Code and title (previous version)	Code and title (current version)	Comments	Equivalence statement
AHCWRK306 Comply with industry quality assurance requirements Release 1	AHCWRK306 Comply with industry quality assurance requirements Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit
AHCWRK308 Handle bulk materials in storage area Release 1	AHCWRK308 Handle bulk materials in storage area Release 2	Minor changes to Performance Criteria for clarity Updated Performance Evidence and Knowledge Evidence	Equivalent unit

Appendix 2: Industry support

Industry Feedback – Agriculture (Ag) Chemical Handling

Ag Chemical Handling Subject Matter Experts Meeting – Sydney 25 October 2017

Name	Organisation
Michael Schaefer	Auschem Training – Executive Manager
Allison Blake	NSW DPI (Wagga) – Leader Workforce Skills Training
Jenene Kidston	NSW DPI (Orange)
Jamie Milne	QLD Department of Agriculture & Fisheries – Principle Policy Officer
Wayne Miller	South Metropolitan TAFE WA – SMARTtrain Lecturer

Ag Chemical Handling Consultation Workshop – Adelaide 9 November 2017

Participants	Organisation
Kirsty Waller	TAFESA – Lecturer
Mark Davies	TAFESA – Lecturer
Phil Shane	TAFESA – Lecturer
Dave Georg	Smith & Georg – Trainer/RTO Owner
Peter Cousins	Primary Producers SA (PPSA) & Grain Producers SA (GPSA) – Lecturer

Ag Chemical Handling Consultation Workshop – Perth 14 November 2017

Participants	Organisation
Judi Forsyth	Central Regional TAFE – Trainer/Assessor
Simon Longmire	Cunderdin Ag College – VET Trainer/Assessor/Coordinator
Paul Etheridge	Food, Fibre And Timber Industries Training Council – Project Manager
Andrew Nicholson	South Regional TAFE – Lecturer
Shannen Barrett	WAFarmers – Executive Officer
Maree Gooch	SAFEFARMSWA – Project Director
Esther Ngang	LIAWA – Executive Director

Ag Chemical Handling Consultation Workshop – Darwin 16 November 2017

Participants	Organisation
James Gorrie	Train Safe NT – Director & Trainer
Laura Cunningham	NT Farmers – Industry Development Officer
Josh Lowe	Charles Darwin University (CDU) – Trainer
Scott McDonald	CDU – Trainer
Michelle Lewis	CDU – Program Manager
Greg Owens	NT Farmers – CEO
Michael Delosa	DPIR

Ag Chemical Handling Consultation Workshop – Brisbane 22 November 2017

Participants	Organisation
Peter Perkins	Queensland Farmers Federation – Training Project Manager
Rick Whistler	Queensland Agricultural Training Colleges – Training Manager
Maree Langton	TAFE Qld – Trainer Rural
Peter Smith	AgForce QLD – Training Manager
Jamie Milne	Queensland Department of Agriculture and Fisheries
Di Palmer	Gatton Vocational Education Centre – University of Queensland (UQ – GVEC) – Program Manager
Chris Clausen	UQ – GVEC – Trainer

Ag Chemical Handling Consultation Workshop – Orange NSW 23 November 2017

Participants	Organisation
Reg Kidd	IRC
John Mills	TAFENSW – Agrifood Industry Liaison
Harris Karatzetzos	ChemCert – Print & Digital Production Manager
Jenene Kidston	NSW DPI – Technical Specialist Chemicals

Ag Chemical Handling Consultation Workshop – TAS 29 November 2017

Participants	Organisation
Stuart Bowman	DPIPWE – Program Manager (AgVET Chemicals)
George Downing	DPIPWE

Ag Chemical Handling Consultation Workshop – Bendigo Vic 30 November 2017

Participants	Organisation
Robert Edgar	Phillips – Consultant
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic

Ag Chemical Handling consultation survey respondents

Name	Organisation	State
Peter Smith	AgForce Qld Farmers Ltd	QLD
Jacqueline Heap	TAFENSW	NSW
Richard Grinter	ABCVPMS – Owner Operator	VIC
Janine Clark	Growcom – Manager Chemical Access	QLD
Maree Langton	TAFE Qld	QLD

Ag Chemical Handling consultation emailed respondents

Name	Organisation	State
Nicola Cottee	Cotton Australia – Research Direction & Stewardship Policy Officer	NSW
Albert Sherry	TAFE NSW	NSW
Phil Shane	Primary Industries, Animal and Laboratory Sciences’/Foundation Skills TAFE SA	SA
Not applicable	National Turf Educators Forum	QLD
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC
Michael Schaefer	Auschem Training – Executive Manager	VIC
John Mills	TAFE NSW	NSW
Janine Clark	Growcom – Manager Chemical Access	QLD
Peter Smith	AgForce Queensland	QLD
Richard Grinter	ABCVPMS – Owner Operator	VIC
Martin A Bowles	NSW Environment Protection Authority – Principal Policy Officer	NSW
Dave Georg	Smith & Georg – Chemical Accreditation	SA
Harris Karatzetzos	ChemCert – Print & Digital Production Manager	NSW
Kellie Passeretto	Ecosystem Health Branch, Forest and Ecosystem Management Division, Parks and Wildlife Service, Department of Biodiversity, Conservation and Attractions	WA
Jacqueline Heap	TAFENSW	NSW
Matt Rawlinson	Qld Small Business Courses (QSBC) – Director	QLD
Caroline Graham	Regional Skills Training	WA

Ag Chemical Handling validation survey respondents

Name	Organisation	State
John Jeffs	TasTAFE Production Horticulture Trainer/Assessor	TAS
Bruce Davies	Canberra Institute of Technology	ACT

Agriculture Industry Sector Panel Event TAFE Queensland 12 February 2018 – Webinar

Name	Organisation	State
Julie Nitschke	LMA Coordinator TAFE Queensland (TQ)	QLD
Maree Langton	TQ Educator	QLD
Ron Trace	TQ Educator	QLD
Vanessa Cain	TQ Educator	QLD
Tim Biggs	Educational Team Lead	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Michael Lyons	Clifton Farmer	QLD
Alan Broome	South Burnett Farmer	QLD
Stephanie Denman	Department of Agriculture and Fisheries	QLD
Karen George	Queensland Agriculture Workforce Network & Growcom	QLD
Jim Collings	Rural Jobs & Skills Alliance	QLD
Gail McKelvie	Tartha Cottage Tara	QLD

Horticulture Industry Sector Panel Event TAFE Queensland 19 February 2018 – Webinar

Name	Organisation	State
Peter Macqueen	TQ South West Educator	QLD
Darren Davidson	TQ South West Educator	QLD
Paul Luck	TQ South West Educator	QLD
Mike Wells	TQ South West Educator	QLD
Kim Hodgkisson	TQ Gold Coast Educator	QLD
Julie Moore	TQ East Coast Educator	QLD
Simon Hislop	TQ East Coast	QLD
Andrew Milner	TQ Brisbane Educator	QLD
Kathryn Beikoff	TQ Brisbane Educator	QLD
Anna Cole	TQ North Educator	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Eliot Cooper	Content & Assessment Developer	QLD
Simon Lee	Sleeman Sports	QLD

Name	Organisation	State
Matt Silvy	Skyline Landscape	QLD
Paul Stein	Seedland Scape Design	QLD
Brendan Smith	Skyline Landscape Design	QLD
Harry Van Dijk	Delivery Manager Central – Urban Amenity Brisbane City Council	QLD
Fred Tilden	Urban Amenity Brisbane City Council	QLD
Brett Oakley	Park Lane Landscapes	QLD
Rebecca Gardener	Growcom	QLD

Ag Chemical Handling validation email respondents

Name	Organisation	State
Paul Etheridge	Food, Fibre And Timber Industries Training Council – Project Manager	WA
Shane Roulstone	Australian Workers Union	NAT

Industry Feedback Pest Management

Pest Management Subject Matter Experts Meeting – Sydney 11 September 2017

Name	Organisation
Geoff Power	Livestock SA – Chair – Wild Dog Stakeholder Consultative Group
Greg Mifsud	Invasive Animals CRC – National wild dog coordinator
Bruce MacPherson	Federation Training – Program Manager
Ben Maslen	Central Region TAFE WA – Lecturer
Steve Honeywood	NSWDPI – Tocal College – Training Development

Pest Management Consultation Workshop – Adelaide 9 November 2017

Participants	Organisation
Kirsty Waller	TAFESA – Lecturer
Marty Bower	SAAL NRM – State Wild Dog Coordinator

Pest Management Consultation Workshop – Perth 14 November 2017

Participants	Organisation
Teen Ryan	Goldfields Nullarbor Rangelands Biosecurity Association (GNRBA) – LPMT
Judi Forsyth	Central Regional TAFE – Trainer/Assessor
Simon Longmire	Cunderdin Ag College – VET Trainer/Assessor/Coordinator
Meja Aldrich	AWI – WAWDCC
Paul Etheridge	Food, Fibre and Timber Industries Training Council – Project Manager
Glenice Batchelor	Department of Primary Industries and Regional Development (DPIRD) – Biosecurity Community Engagement
Barry Davies	DPIRD – Manager Wild Dogs
Andrew Nicholson	South Regional TAFE – Lecturer
Daniel Reed	AFP – Manager
Shannen Barrett	WAFarmers – Executive Officer

Pest Management Consultation Workshop – Darwin 16 November 2017

Participants	Organisation
James Gorrie	Train Safe NT – Director & Trainer
Laura Cunningham	NT Farmers – Industry Development Officer
Josh Lowe	Charles Darwin University (CDU) – Trainer
Scott McDonald	CDU – Trainer
Michelle Lewis	CDU – Program Manager
Greg Owens	NT Farmers – CEO
Michael Delosa	DPIR

Pest Management Consultation Workshop – Brisbane 22 November 2017

Participants	Organisation
Peter Perkins	Queensland Farmers Federation – Training Project Manager
Rick Whistler	Queensland Agricultural Training Colleges – Training Manager
Maree Langton	TAFE Qld – Trainer Rural
Di Palmer	Gatton Vocational Education Centre – University of Queensland (UQ – GVEC) – Program Manager
Claire Moore	QLD Health – Project Officer (Poisons & Pest Management)
Phil Sayer	Garrards – Technical & Training Manager
Chris Clausen	Gatton Vocational Education Centre – University of Queensland (UQ – GVEC) – Trainer
John Bonson	Logan County Council – Pest Management

Pest Management Consultation Workshop – Orange NSW 23 November 2017

Participants	Organisation
Dave Worsley	Centre for Invasive Species Solutions (CISS) – Wild Dog Facilitator
John Mills	TAFENSW – Agrifood Industry Liaison
Peter Fleming	NSW DPI – Research Leader Vertebrate Pests
Bruce Browne	NSW DPI – Farm Chemical Officer

Pest Management Consultation Workshop – TAS 29 November 2017

Participants	Organisation
No attendees who had registered for this event were in attendance.	

Pest Management Consultation Workshop – Bendigo Vic 30 November 2017

Participants	Organisation
Claudia Green	BHI – Teacher
Nigel Roberts	Agriculture Victoria – Leading Biosecurity Officer
Glenn Cole	Pest Controller – Owner Operator
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic
Richard Grinter	ABCVPMS – Owner Operator
Peter Brown	BHI – Teacher
Robert Edgar	Phillips Agriculture – Consultant
John Matthews	Agriculture Victoria – Biosecurity Manager
Rob Hall	BHI – Coordinator
Lisa Mack	BHI – PA

Pest Management consultation survey respondents

Name	Organisation	State
Lawrence Tobin	Rivalea (Australia) Pty Ltd	NSW
Richard Grinter	www.abcvpms.com.au	VIC
Reg Seaman	Murgoo Pastoral	WA
Ben Maslen	Central Regional TAFE	WA
Adam West	QPRC	NSW
Maree Langton	TAFE Qld	QLD
Duncan Swan	DAF – Biosecurity Queensland	QLD
Claire Moore	Queensland Dept of Health	QLD
Matt Wilson	Watch Stock Dog Control	QLD

Pest Management consultation emailed respondents

Name	Organisation	State
Greg Mifsud	Invasive Animals CRC – National wild dog coordinator	QLD
Ben Maslen	Central Region TAFE WA – Lecturer	WA
Heath Molloy	Senior Policy Officer Established Pests and Weeds Biosecurity Policy & Implementation Division – Department of Ag and Water	ACT

Name	Organisation	State
Tu-Trinh (Amy) Tran	Environmental Health Directorate Public and Aboriginal Health Division	WA
Kim Courtenay	Lecturer Horticulture – North Regional TAFE WA	WA
Richard Grinter	ABCVPMS – Owner Operator	VIC
Steve Honeywood	Leader Industry Qualifications, Tocal College	NSW
Nicola Cottee	Research Direction & Stewardship Policy Officer	NSW
Bruce MacPherson	Federation Training – Program Manager	VIC
Stephen Ware	National Executive Director – Australian Environmental Pest Managers Association Limited	QLD
Peter Smith	AgForce Qld Farmers Ltd	QLD
Tom Ryan	Northern Territory Cattlemen's Association	NT
Ivan Naggs	AgForce Qld	QLD
Peter Lucas	AgForce Qld	QLD
Kane Lucas	AgForce Qld	QLD
Teen Ryan	Goldfields Nullarbor Rangelands Biosecurity Association (GNRBA) – LPMT	WA
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC
Phil Sayer	Technical and Training Manager Garrards Pty Ltd	QLD
Belinda Watson	Melbourne Polytechnic	VIC
Anne Wiltshire	Melbourne Polytechnic	VIC
Terri Williams	Bendigo TAFE	VIC
John Gabriele	Assistant Faculty Director – Business and Education TAFENSW	NSW
Kellie Passeretto	Weeds Program Coordinator, Ecosystem Health Branch, Forest and Ecosystem Management Division, Parks and Wildlife Service, Department of Biodiversity, Conservation and Attractions	WA
Not applicable	National Turf Educators Forum	QLD
Kim Courtenay	North Regional TAFE	WA

Name	Organisation	State
Guy Pitchford	Hunting and Program Manager – Sporting Shooters Association of Australia	NSW
Barry Ray	Manager, Academic Programs – Longerenong College	VIC

Agriculture Industry Sector Panel Event TAFE Queensland 12 Feb 18 – Webinar

Name	Organisation	State
Julie Nitschke	LMA Coordinator TAFE Queensland (TQ)	QLD
Maree Langton	TQ Educator	QLD
Ron Trace	TQ Educator	QLD
Vanessa Cain	TQ Educator	QLD
Tim Biggs	Educational Team Lead	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Michael Lyons	Clifton Farmer	QLD
Alan Broome	South Burnett Farmer	QLD
Stephanie Denman	Department of Agriculture and Fisheries	QLD
Karen George	Queensland Agriculture Workforce Network & Growcom	QLD
Jim Collings	Rural Jobs & Skills Alliance – RJSA, QFF	QLD
Gail McKelvie	Tartha Cottage Tara	QLD

Horticulture Industry Sector Panel Event TAFE Queensland 19 Feb 18 – Webinar

Name	Organisation	State
Peter Macqueen	TQ South West Educator	QLD
Darren Davidson	TQ South West Educator	QLD
Paul Luck	TQ South West Educator	QLD
Mike Wells	TQ South West Educator	QLD
Kim Hodgkisson	TQ Gold Coast Educator	QLD
Julie Moore	TQ East Coast Educator	QLD
Simon Hislop	TQ East Coast	QLD

Name	Organisation	State
Andrew Milner	TQ Brisbane Educator	QLD
Kathryn Beikoff	TQ Brisbane Educator	QLD
Anna Cole	TQ North Educator	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Eliot Cooper	Content & Assessment Developer	QLD
Simon Lee	Sleeman Sports	QLD
Matt Silvy	Skyline Landscape	QLD
Paul Stein	Seedland Scape Design	QLD
Brendan Smith	Skyline Landscape Design	QLD
Harry Van Dijk	Delivery Manager Central – Urban Amenity Brisbane City Council	QLD
Fred Tilden	Urban Amenity Brisbane City Council	QLD
Brett Oakley	Park Lane Landscapes	QLD
Rebecca Gardener	Growcom	QLD

Pest Management validation respondents

Name	Organisation	State
Janine King	National Wild Dog Action Plan Project Manager	QLD
Richard Grinter	ABCVPMS – Owner Operator	VIC
Ben Maslen	Central Region TAFE WA – Lecturer	WA

Pest Management validation email respondents

Name	Organisation	State
Kim Haywood	Executive Officer – Policy Western Australian Farmers Federation	WA
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC
Tony Woolrich	Victorian STA	VIC
Belinda Townend	Northern Territory Government representative on the Invasive Plants and Animals Committee	NT
Di Evans	Senior Scientific Officer RSPCA	ACT
Greg Mifsud	Invasive Animals CRC – National wild dog coordinator	QLD
Shane Roulstone	Australian Workers Union	NAT

Industry Feedback Advanced Skills in Apiculture (Bees)

Advanced Skills in Apiculture (Bees) Subject Matter Experts Meeting – Sydney 11 October 2017

Name	Position	Organisation
Alan Burnham	Chief Executive	Burnham and Associates Training Consultancy, QLD
Bruce White	President	Amateur Beekeepers Association NSW
Danielle Lloyd-Prichard	Education Officer – Honey Bees	Department of Primary Industries – TOCAL College NSW
Michael Stedman	Project Coordinator – Apiaries	Biosecurity, SA
Robert McDonald	Vice President	Victorian Apiarist Association, VIC
Trevor Weatherhead	Executive Director	Australian Honey Bee Industry Council Inc. (AHBIC), QLD
Yeonsoon Bourke	Beekeeper	Australian Honey Products, Tasmania
Sam Papsidero	Industry Facilitation Manager	Skills Impact
Tom Vassallo	Industry Skills Standards Manager	Skills Impact
Ron Barrow	Contractor for Skills Impact	Nestor Consulting

Advanced Skills in Apiculture (Bees) Consultation Workshop – Adelaide 9 November 2017

Participants	Organisation
Lorraine Gilbert	Gilbert Beekeeping
Martin Gilbert	Gilbert Beekeeping
Michael Stedman	Project Coordinator – Apiaries
Susan Lonie	Beekeepers Society of South Australia

Advanced Skills in Apiculture (Bees) Consultation Workshop – Darwin 16 November 2017

Participants	Organisation
Vicki Simlesa	Biosecurity and Animal Welfare, Department of Primary Industry and Fisheries, NT – Apiary Technical Officer

Participants	Organisation
Tas Festing	Humpty Doo Apiaries, NT – Beekeeper

Advanced Skills in Apiculture (Bees) Consultation Workshop – Perth 14 November 2017

Participants	Organisation
Shannen Barrett	Executive Officer, Policy (Bees; Education) WA Farmers Federation
Andrew Nicholson	SR Tafe – Lecturer
David Currey	Principal – Manageering Pty Ltd

Advanced Skills in Apiculture (Bees) Consultation Workshop – Brisbane 22 November 2017

Participants	Organisation
None of the registered participants attended	

Advanced Skills in Apiculture (Bees) Consultation Workshop – Orange NSW 23 November 2017

Participants	Organisation
Megan Halcroft	Bees Business – Educator
Bruce White	Amateur Beekeepers Association NSW – President
Andrew Park	Michael Mater, Hive Training Solutions – Chief Executive Officer
Melissa Wortman	NSW Agrifood ITAB – Executive Officer
Mick Mather	Michael Mater, Hive Training Solutions – Trainer
Miskell Hampton	Amateur Beekeepers' Association (ABA) – Education Officer
Lamorna Osborne	Medical and Bio Honey, ABA, NSW Apiarists Association (NSWAA) – Doctor
Paul Drew	NSW Apiarist Association – Sydney Branch President

Advanced Skills in Apiculture (Bees) Consultation Workshop – Launceston 29 November 2017

Participants	Organisation
Yeonsoon Bourke	Australian Honey Products, Tasmania
Kevin Kirkley	Teacher – TAS TAFE

Advanced Skills in Apiculture (Bees) Consultation Workshop – Bendigo 30 November 2017

Participants	Organisation
Robert McDonald	Vice President - VAA

Advanced Skills in Apiculture (Bees) consultation survey respondents

Name	Organisation	State
Miskell Hampton	Self-Employed Beekeeper/ Amateur Beekeepers' Association (ABA) – Education Officer	NSW
Corrinne Jordan	The Bee Lady Apiaries	QLD
Jerry Venter	Venter Agriculture	WA
Michael Stedman	Project Coordinator – Apiaries, Biosecurity, South Australia	SA
Sandra Ullrich	Adelaide Bee Sanctuary	SA
Kevin Kirkely	TasTAFE	TAS
Elizabeth Frost	Department of Primary Industries	NSW
Susan Lonie	Beekeepers Society of South Australia	SA
Kylie Pitt	Berrima Apiaries/ Secretary South Australian Apiarists Association Inc	SA
Andrew Park	Fusion Training and Hive Training	NSW
David Leyland	Beez Nees Apiaries	WA

Advanced Skills in Apiculture (Bees) consultation emailed respondents

Name	Organisation	State
Michael Stedman	Project Coordinator – Apiaries, Biosecurity, South Australia	SA
Miskell Hampton	Self-Employed Beekeeper/ Amateur Beekeepers' Association (ABA) – Education Officer	NSW
Susanne Boughton	Beekeeper – Owner/Manager of Bay of Fires Apiaries	TAS
Danielle Lloyd-Prichard	Education Officer – Honey Bees, Department of Primary Industries, Tocal College	NSW
Trevor Weatherhead	Executive Director of Australian Honey Bee Industry Council Inc. (AHBIC)	QLD
Lorraine and Martin Gilbert	Beekeepers – Gilbert Beekeeping and Laura Gardens Bees	SA
Megan Halcroft	Bees Business – Educator	NSW
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC
Shannen Barrett	Executive Officer, Policy (Bees; Education) WA Farmers Federation	WA
Kim Phillips	The House of Honey and The Sticky Spoon Café	WA

Advanced Skills in Apiculture (Bees) validation survey respondents

Name	Organisation	State
Sandra Ullrich	Adelaide Bee Sanctuary	SA
Kevin Kirkely	TasTAFE	TAS
Miskell Hampton	Self-Employed Beekeeper/ Amateur Beekeepers' Association (ABA) – Education Officer	NSW
Elizabeth Frost	Department of Primary Industries	NSW
Susan Lonie	Beekeepers Society of South Australia	SA
Kylie Pitt	Berrima Apiaries/ Secretary South Australian Apiarists Association Inc	SA
Danielle Lloyd-Prichard	Education Officer – Honey Bees, Department of Primary Industries, Tocal College	NSW
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC

Advanced Skills in Apiculture (Bees) validation email respondents

Name	Organisation	State
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC

Industry Feedback – Safe Operation Agriculture Machinery and New Technology (Ag Machinery)

Ag Machinery – Subject Matter Expert Meeting 1 – Sydney 27 September 2017

Attendee	Position	Organisation
Charles Armstrong	Chair – NFF Workforce Productivity Committee Chair – FarmSafe Australia	National Farmers Federation NSW
Mark Collins	ATV Manager	Federal Chamber of Automotive Industries
Darrell Knight	Manager ATV Commission Chair – Motorcycling Australia	Australian Off-Road Vehicle Association
Colin Lawson	Director	QuadSafe Australia
Simon Mc Adie	ATV Manager	Stay Upright Rider Training
Peter Miller	Contractor for Skills Impact	Peter Emmanuel Miller Consulting
Sam Papisidero	Industry Facilitation Manager	Skills Impact
Ruth Geldard	Industry Skills Standards Specialist	Skills Impact

Apology	Organisation
Nathan Cox	Safe Farming Tasmania Industry Reference Group

Ag Machinery – Subject Matter Expert meeting 2 – Sydney 17 October 2017

Attendee	Position	Organisation
John Mills	Manager Industry Liaison	TAFE NSW
Dave Cronin	Group Retail Service Manager	National Ag Machinery Group
Andrew Jones	National Service Operations Manager	Energy Power Systems Australia
John Hill	Ag machinery Lecturer and Training Advisor	Department Primary Industry
Peter Miller	Contractor for Skills Impact	Peter Emmanuel Miller Consulting
Ruth Geldard	Industry Skills Standards Specialist	Skills Impact

Apologies	Organisation
Jamie Cupples	FarmSafe
Charles Armstrong	NSW NFF
Wayne Cornish	Rural Skills Australia

Ag Machinery Consultation Workshop – Adelaide 9 November 2017

Participants	Organisation
Mark Davies	TAFE SA – Lecturer Agriculture

Ag Machinery Consultation Workshop – Perth 14 November 2017

Participants	Organisation
Maree Gooch	Safe farms WA – CEO
Judi Forsyth	Central Regional TAFE – Trainer/Assessor
Simon Longmire	Cunderdin Ag College – VET Trainer/Assessor/Coordinator
John Henchy	Farm Machinery and Industry Association of WA – Executive Officer
Paul Etheridge	Food, Fibre and Timber Industries Training Council – Project Manager
Andrew Nicholson	South Regional TAFE – Lecturer
Shannen Barrett	WA Farmers – Executive Officer

Ag Machinery Consultation Workshop – Darwin 16 November 2017

Participants	Organisation
Phillip Hausler	Primary Industry and Resources (DPIR) NT – Project Development Manager
Laura Cunningham	NT Farmers – Industry Development Officer
Josh Lowe	Charles Darwin University (CDU) – Trainer
Scott McDonald	CDU – Trainer
Michelle Lewis	CDU – Program Manager
Greg Owens	NT Farmers – CEO
Michael Delosa	DPIR – Director Mining and Petroleum Compliance

Ag Machinery Consultation Workshop – Brisbane 22 November 2017

Participants	Organisation
Peter Perkins	Queensland Farmers Federation (QFF) – Training Project Manager
Rick Whistler	Queensland Agricultural Training Colleges – Training Manager
Maree Langton	TAFE QLD – Trainer Rural
Chris Clausen	Gatton Vocational Education Centre – University of Queensland (UQ – GVEC) – Trainer
Di Palmer	Gatton Vocational Education Centre – University of Queensland (UQ – GVEC) – Program Manager
Jim Collings	QFF
Alanna Metcalf	WHSQ – Policy Officer

Participants	Organisation
Glen Van Emmerik	University of Queensland (UQ) – Director Health Security Education
Warren Dennis	McLeod Training organization (MTO Group) – CEO
Fiona O Sullivan	WHSQ – Manager, Agriculture

Ag Machinery Consultation Workshop – Orange NSW 23 November 2017

Participants	Organisation
Allison Blake	NSW DPI Tocal College – Workforce Skills Training
John Mills	TAFE NSW – Agriculture Industry Liaison

Ag Machinery Consultation Workshop – TAS 29 November 2017

Participants	Organisation
No attendees	

Ag Machinery Consultation Workshop – Bendigo Vic 30 November 2017

Participants	Organisation
Rob Hall	Box Hill Institute (BHI) – Coordinator
Peter Brown	BHI – Teacher
Claudia Green	BHI – Teacher
Lisa Mack	BHI – Teacher
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic
Richard Grinter	ABC Vertebrate Pest Management System – Assessor

Ag Machinery survey respondents

Name	Organisation	State
James Cupples	FarmSafe Queensland	QLD
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC

Ag Machinery emailed respondents

Name	Organisation	State
Simon Mc Adie	ATV Manager Stay Upright Training	NSW
John Hill	Ag machinery Lecturer and Training Advisor	NSW

Name	Organisation	State
Phil Shane	Primary Industries, Animal and Laboratory Sciences'/Foundation Skills TAFE SA	SA
Julian Taylor	AIR CIT	NAT
Kate Bryce	Primary Industries Curriculum Maintenance Manager, Melbourne Polytechnic	VIC
Mark Davies	TAFE SA	SA
John Mills	TAFE NSW	NSW
Jennifer Bailey	Consultant	NAT
Terry Taylor	ETAS Group	WA
Laura Long	SA Training	SA
Dianne Fullelove	Industry and People Development at Dianne Fullelove and Associates	QLD
James Gorrie	Train Safe	NT
Caroline Graham	Regional Skills Training	SA
Jacqueline Heap	TAFE NSW	NSW
Barry Ray	Longerenong College	
Rowan Scott	Queensland Agricultural Training Colleges	QLD

Agriculture Industry Sector Panel Event TAFE Queensland 12 Feb 18 – Webinar

Name	Organisation	State
Julie Nitschke	LMA Coordinator TAFE Queensland (TQ)	QLD
Maree Langton	TQ Educator	QLD
Ron Trace	TQ Educator	QLD
Vanessa Cain	TQ Educator	QLD
Tim Biggs	Educational Team Lead	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Michael Lyons	Clifton Farmer	QLD
Alan Broome	South Burnett Farmer	QLD
Stephanie Denman	Department of Agriculture and Fisheries	QLD
Karen George	Queensland Agriculture Workforce Network & Growcom	QLD
Jim Collings	Rural Jobs & Skills Alliance – RJSA, QFF	QLD
Gail McKelvie	Tartha Cottage Tara	QLD

Horticulture Industry Sector Panel Event TAFE Queensland 19 Feb 18 – Webinar

Name	Organisation	State
Peter Macqueen	TQ South West Educator	QLD
Darren Davidson	TQ South West Educator	QLD
Paul Luck	TQ South West Educator	QLD
Mike Wells	TQ South West Educator	QLD
Kim Hodgkisson	TQ Gold Coast Educator	QLD
Julie Moore	TQ East Coast Educator	QLD
Simon Hislop	TQ East Coast	QLD
Andrew Milner	TQ Brisbane Educator	QLD
Kathryn Beikoff	TQ Brisbane Educator	QLD
Anna Cole	TQ North Educator	QLD
Veronica Strasburg	TQ South West Product Team	QLD
Eliot Cooper	Content & Assessment Developer	QLD
Simon Lee	Sleeman Sports	QLD

Name	Organisation	State
Matt Silvy	Skyline Landscape	QLD
Paul Stein	Seedland Scape Design	QLD
Brendan Smith	Skyline Landscape Design	QLD
Harry Van Dijk	Delivery Manager Central – Urban Amenity Brisbane City Council	QLD
Fred Tilden	Urban Amenity Brisbane City Council	QLD
Brett Oakley	Park Lane Landscapes	QLD
Rebecca Gardener	Growcom	QLD

Ag Machinery validation survey respondents

Name	Organisation	State
James Cupples	FarmSafe Queensland	QLD
Julian Taylor	AIR CIT	NAT

Ag Machinery validation email respondents

Name	Organisation	State
Mark Collins	Federal Chamber of Automotive Industries	NAT
Darrell Knight	Motorcycling Australia Australian Off-Road Vehicle Association	NAT
Shane Roulstone	Australian Workers Union	NAT

Appendix 3: RTO concerns

Respondent	Comments
TOCAL College, NSW	<p>Expressed concern about the increase of the Certificate III in Beekeeping from 16 to 18 units and the inclusion of the following units in the core of the qualification:</p> <ul style="list-style-type: none"> • Assemble and maintain beekeeping components • Transport bee hives by road to new apiary site • Select and establish an apiary site. <p>The rationale for the concern was an increase in costs to learners in having to achieve two more units. The RTO also considered the three core units should be listed as electives, as not all beekeepers perform the tasks covered by these units.</p> <p>The RTO's concerns were considered by industry representatives during an SME meeting and the majority supported the increased size of the qualification and retaining the units as core, on the basis that a person that a person who achieves the Certificate III in Beekeeping should acquire broad and deep range of beekeeping skills to work effectively within the industry.</p>
TOCAL College, NSW	<p>Concerned that there is an identified shortfall in accredited training at Certificate II and IV levels in Beekeeping and that these qualifications should be developed. Several industry representatives did not generally support the development of AQF level 2 and 4 qualifications, citing low take up of these qualifications when they existed in the past and no clearly identifiable job role for the Certificate IV. It is recommended that the need for AQF level 2 and 4 qualifications be researched for a possible future project.</p>

Appendix 4: Quality assurance report

Section 1 – Details of draft training package components

Information required	Detail
Training Package title and code	AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0
Number of new or revised qualifications	3
Number of new or revised units	99
Confirmation that the draft endorsed components meet the <i>Standards for Training Packages 2012</i>	I, Maree Thorne, confirm that the draft endorsed components meet the <i>Standards for Training Packages 2012</i>
Name of panel member completing Quality Report	Maree Thorne, Compliance Assist Pty Ltd
Statement that the panel member is independent of development and/or validation activities associated with the <i>Case for Endorsement</i> has not undertaken the <i>Equity and/or Editorial Report</i> is independent of the Training Package or Training Package components being reviewed.	<i>I, Maree Thorne, declare that I have conducted this review independent of the development and validation activities associated with the Case for Endorsement</i> <i>I have not undertaken the Equity and Editorial Reports, and further, I declare my independence from the Training Package and the Training Package components reviewed.</i>
Date completed	1 June 2018

Section 2 – Compliance with the standards for training packages

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
<p>Standard 1 Training Packages consist of the following:</p> <p>1. AISC endorsed components:</p> <ul style="list-style-type: none"> • units of competency • assessment requirements (associated with each unit of competency) • qualifications • credit arrangements. <p>2. One or more quality assured companion volumes.</p>	<p>Yes</p>	<p>The proposed components of the AHC Agriculture, Horticulture and Conservation and Land Management Training Package (Version 3.0) meet the requirements of Standard 1.</p> <p>The Training Package components in the Case for Endorsement include 3 qualifications, 99 units of competency, each with associated assessment requirements, and 7 skill sets (non-endorsed components)</p> <p>In relation to six individual AHCCHM units of competency which have been re-coded per the requirements of the Training Package Products Policy (TPPP), Skills Impact have indicated in the QA process that they have reviewed all qualifications which include the superseded units of competency and will address as minor updates to qualifications.</p> <p>The Case for Endorsement specifies that no credit arrangements exist at the time of development.</p> <p>The AHC Agriculture, Horticulture and Conservation and Land Management Training Package V3.0 Companion Volume Implementation Guide (CVIG) provides implementation advice in two volumes (Parts 1 and 2).</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
<p>Standard 2 Training Package developers comply with the AISC <i>Training Package Products Policy</i>.</p>	<p>Yes</p>	<p>As indicated in the Editorial Report, the developer has complied with the AISC <i>Training Package Products Policy</i> through:</p> <ul style="list-style-type: none"> • compliance with coding and titling of qualifications and units of competency. Where pre-requisites have been removed from units of competency, the units have been re-coded as required by the Training Package Products Policy (TPPP). Units of competency with minor editorial changes only have been classified as version releases, whilst units with more significant changes have been re-coded. There are no entry requirements for the AHC qualifications, and where possible pre-requisite units have been removed; • the inclusion of implicit foundation skills described against the Australian Core Skills Framework (ASCF) and skills from the Core Skills for Work (CSfW) Framework in each unit of competency, aligned to performance criteria and assessment requirements, with advice about Foundation Skills provided in the CVIG (Part 1); • a range of skill sets and qualification pathways to enable access and pathways for a wide range of learners and industry outcomes. Pathway advice is included in the Companion Volume Implementation Guide (CVIG) • inclusion of equivalency mapping to superseded training products in the CVIG.

<p>Standard 3 Training Package developers comply with the AISC <i>Training Package Development and Endorsement Process Policy</i>.</p>	<p>Yes</p>	<p>The Editorial Report and Case for Endorsement (CfE) provides comprehensive information about Skills Impact’s development and endorsement processes of the draft components, including alignment to and compliance with ASIC’s Activity Order, which is comprised of four projects:</p> <ul style="list-style-type: none"> • Review current pest management qualification’s application to rural pest management vocational requirements, resulting in development of options for a broad occupational outcome or specialisations in vertebrate pest animal control or weed management. • Review Apiculture qualification to ensure inclusion of biosecurity knowledge, as well as enable skills and knowledge applicable to a broadening apiculture industry in relation to products and processes. • Review Certificate III in Rural Machinery Operations and the units of competency relating to the use of new technology and safety measures across a range of mobile farm machinery operations, including strengthening training products relating to the safe operation of two wheel bikes, side by side vehicles and quad bikes. • Review AHCCHM units of competency to ensure training product alignment with the Global Harmonised System (GHS) of classification and labelling of chemicals, and inclusion of biosecurity knowledge. <p>The CfE outline of communication strategies and contributing personnel listed in Appendices, supports evidence of extensive consultation undertaken throughout the development process with a wide range of stakeholders, including industry, training organisations, regulatory authorities, subject matter experts (SME) and Industry Reference Committees.</p> <p>The CfE identifies issues raised by stakeholders, and outlines how issues are addressed in the review, or where issues are not in scope of current projects (eg. delivery).</p> <p>Consultation and validation strategies inclusive of online project information, face to face workshops and webinars, newsletters and online questionnaires support provision of wide range of opportunities for engagement with industry and other relevant parties in the development and validation processes.</p> <p>Project(s) information on the Skills Impact website supports invitations to subject matter experts to assist in development, as well as provide updates of changes made throughout the development and validation processes.</p>
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Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
<p>Standard 4 Units of competency specify the standards of performance required in the workplace.</p>	<p>Yes</p>	<p>All units of competency have been reviewed to ensure they specify the standards of performance required in the workplace.</p> <p>A Range of Conditions has been specified in some units where essential facilities, equipment or conditions are specified to meet performance standards.</p> <p>The CfE specifies that AHCCHM skill sets and units in particular, especially those used by regulators to grant licences or permissions to use chemicals have been ‘been designed with a focus on a hands-on delivery model as the preferred method for delivery, to reduce the risk of poor training found in some of the currently used online delivery and assessment methods.’</p> <p>Similarly, the CfE ‘identified the need for training and assessment of the Certificate III in Beekeeping be delivered either on the job in an active live apiary or in a training environment with live bees, which is reflected in the training package components.</p>
<p>Standard 5 The structure of units of competency complies with the unit of competency template.</p>	<p>Yes</p>	
<p>Standard 6 Assessment requirements specify the evidence and required conditions for assessment.</p>	<p>Yes</p>	<p>The Editorial Report found that all draft units of competency specify the performance evidence and knowledge evidence to be demonstrated for assessment, along with required conditions for assessment as per the appropriate template.</p> <p>References to a volume or frequency of Performance Evidence (‘at least once’) are stated, as are Assessment Conditions in relation to how evidence must be gathered.</p> <p>As noted in the Editorial Report, the assessment requirements cross-reference well to the unit requirements.</p>
<p>Standard 7 Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template.</p>	<p>Yes</p>	<p>All draft units of competency have associated assessment requirements, which comply with the assessment requirements template and the Standards for Training Packages 2012</p>

Standards for Training Packages	Standard met – yes or no	Comments (including any relevant comments from the Equity and Editorial Reports)
Standard 8 Qualifications comply with the Australian Qualifications Framework specification for that qualification type.	Yes	<p>The Editorial Report confirmed that Standard 8 had been met and that the skills and knowledge in the draft qualifications map to their appropriate AQF level.</p> <p>The QA process sought to confirm this determination and Skills Impact provided qualification mapping documents for each qualification showing alignment of units of competency to AQF descriptors at AQF level 3, and industry consultation support for volume of learning at AQF level 3.</p>
Standard 9 The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template.	Yes	
Standard 10 Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template.	Yes	The Case for Endorsement and AHC CVIG indicate that no national credit arrangements exist at this time.
Standard 11 A quality assured Companion Volume Implementation Guide produced by the Training Package developer is available at the time of endorsement and complies with the Companion Volume Implementation Guide template.	Yes	<p>The Training Package components in this submission are accompanied by the Companion Volume Implementation Guide (CVIG) Parts 1 and 2.</p> <p>The guide complies with the companion volume implementation guide template included in the 2012 Standards.</p>
Standard 12 Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.	Yes	No other companion volumes are produced.

Section 3 – Comments on how the draft training package components meet the quality principles

1. Reflect identified workforce outcomes

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Driven by industry's needs	<ul style="list-style-type: none"> Changes demonstrate a clear link back to relevant AISC decisions commissioning the work, the IRC Skills Forecast and Proposed Schedule of Work, National Review Schedule and/or Case for Change, or demonstrate other evidence of industry needs 	Yes	<p>The Case for Endorsement (and further confirmed in the Editorial Report) provides clear and comprehensive information about the consultation and changes that occurred in the review. These changes show a clear link to the Case for Endorsement and AISC Activity Order imperatives.</p> <p>There is evidence in the Case for Endorsement that the SSO has addressed the need for industry responsiveness and has undertaken comprehensive and appropriate stakeholder consultation including consideration of the 2015 training package reforms, in the development and validation process for the qualification submitted.</p>
Compliant and respond to government broad policy initiatives	<ul style="list-style-type: none"> Training package components are compliant with the Standards for Training Packages 2012, the Training Package Products Policy and the Training Package Development and Endorsement Process Policy Evidence that the training package components respond to Ministers' policy initiatives, in particular the 2015 training package reforms 	Yes	<p>The endorsed components have been developed in accordance with the 2012 Standards for Training Package Development, the Training Package Products Policy and the Training Package Development and Endorsement Policy, evidenced via</p> <ul style="list-style-type: none"> Compliance with endorsed component templates CfE evidence of national and broad industry and industry associated consultation and validation Removal of obsolete units where applicable Provision of specialisation outcomes within qualifications, rather than duplication of qualifications

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
			<ul style="list-style-type: none"> • Qualifications supported by skill sets for specialist, advanced or entry level skills • Inclusion of units from other nationally endorsed training packages where appropriate to minimise duplication
Reflect contemporary work organisation and job profiles incorporating a future orientation	<ul style="list-style-type: none"> • Open and inclusive consultation and validation commensurate with scope and impact has been conducted 	Yes	<p>The CfE outline of communication strategies and contributing personnel listed in Appendix 2, supports evidence of extensive consultation undertaken throughout the development process with a wide range (national) of stakeholders, including industry and subject matter experts (SME) groups, training organisations, regulatory authorities and Industry Reference Committee.</p> <p>Consultation and validation strategies inclusive of online project information, face to face and webinar consultation and workshops, newsletters and online questionnaires support provision of a wide range of opportunities and accessibility for engagement with industry and other relevant parties in the review and development process.</p>

2. Support portability of skills and competencies including reflecting licensing and regulatory requirements

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support movement of skills within and across organisations and sectors	Packaging rules, qualifications framework, and pathways support movement within and across sectors Identification of skill sets that respond to client needs	Yes	<p>The draft Units of Competency and associated Assessment Requirements are written in a manner that allows adaptability and flexibility in relation to a broad range of industry variables. This enables the units to be contextualised to meet the various needs of the industries.</p> <p>The CfE includes seven skill sets to address specific industry needs.</p> <p>There is flexibility in the packaging rules and the number and diversity of electives.</p> <p>The AHC30318 Certificate III in Rural and Environmental Pest Management packaging rules allow for either specialisation or a broader 'generic' qualification, and information is provided in the CVIG in relation to inclusion of specialisations if applicable on testamurs.</p> <p>As noted in the Equity Report, the elective units listed in the AHC qualifications include imported units that enable flexibility across organisations and sectors.</p>

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Promote national and international portability	Other national and international standards for skills are considered	Yes	<p>The ACHCHM units have been revised to ensure inclusion of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) which is an internationally agreed-upon standard managed by the United Nations.</p> <p>The CfE, CVIG and individual qualifications and units of competency provide information about national and local standards and regulations in various jurisdictions.</p>
Reflect regulatory requirements and licensing	Solutions to incorporate licensing and regulatory requirements are brokered and there is clear evidence of support from licensing and industry regulatory bodies	Yes	<p>Licensing and regulatory statements are included in units of competency, where relevant and worded to enable flexibility to cater for jurisdictional variations.</p> <p><i>(for example, 'State or territory licensing, legislative or certification requirements apply in some jurisdictions'</i></p> <p>or</p> <p><i>'State and territory legislation, regulations and local government by-laws apply in some jurisdictions to beehive ownership and compliance with biosecurity codes of practice. Harvesting honey is subject to state and territory food safety legislation and regulations.'</i>)</p> <p>Specific information about contact information for each jurisdiction is provided in companion volumes so that it can be quickly updated when required.</p>

3. Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Reflect national consensus	<ul style="list-style-type: none"> Active engagement across industry has sought to achieve a national consensus about the advice being provided to the AISC. 	Yes	<p>The CfE evidences a national and extensive consultation process providing opportunities to participate via a number of communication channels, to capture ongoing feedback on the endorsed components throughout the duration of the review.</p> <p>The CfE Appendix 2 reflects a range of respondents including national industry participants, state training authorities, industry /content expert and training practitioners.</p>
Recognise convergence and connectivity of skills	<ul style="list-style-type: none"> Best use is made of cross-industry and work and participation bank units 	Yes	<p>Elective units listed in the qualifications include imported units from a number of nationally endorsed training packages.</p>

4. Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Meet the diversity of individual and employer needs	<ul style="list-style-type: none"> Provide flexible qualifications that enable application in different contexts 	Yes	Both the specialisations and the generic qualifications in all qualifications allows for a range of work contexts. The Equity Report and the Implementation Guide detail the flexibility in the context of the requirements of the work roles.
Support equitable access and progression of learners	<ul style="list-style-type: none"> Provide multiple entry and exit points Pre-requisite units of competency are used only when required 	Yes	<p>Multiple entry and exit points are shown on the qualification pathways charts in the draft <i>Companion Volume Implementation Guide</i>.</p> <p>Pre-requisite units of competency have been removed from AHCCHM units. No other units have pre-requisite units of competency.</p>

5. Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support learner transition between education sectors	<ul style="list-style-type: none"> Provide pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications 	Yes	<p>The CVIG provides information about the pathways and opportunities for transition or movement between (upwards and crossways) qualifications.</p> <p>Seven skill sets enable candidates to gain skills and knowledge for entry, specialised or advanced aspects of the various industries and many of the skills sets form pathways to, or from, AHC qualifications</p> <p>The CVIG notes that there are currently no nationally applicable credit arrangements between AHC qualifications and higher education qualifications.</p>

6. Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support implementation across a range of settings	<ul style="list-style-type: none"> Industry advice about delivery is provided via a Companion Volume Implementation Guide ready for publication at the same time as the Training Package 	Yes	The CVIG, ready for publication at the time of AHC Training Package endorsement, provides comprehensive and AHC specific advice about delivery requirements including reasonable adjustments, foundation skills, and progressions and pathways between qualifications.

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support sound assessment practice	<ul style="list-style-type: none"> Units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth 	Yes	<p>The draft Units of Competency and associated Assessment Requirements have consistent depth and breadth, including references to volume and frequency of Performance Evidence and Assessment Conditions specifying how evidence must be gathered.</p> <p>Units are written in a manner that allows adaptability and flexibility which enables the units to be contextualised to meet the varied and broad needs of the AHC industry.</p> <p>As noted above, the CfE specifies that AHCCHM skill sets and units in particular, especially those used by regulators to grant licences or permissions to use chemicals have been 'been designed with a focus on a hands-on delivery [and assessment model] as the preferred method for delivery, to reduce the risk of poor training found in some of the currently used online delivery and assessment methods.'</p> <p>Similarly, the CfE 'identified the need for training and assessment of the Certificate III in Beekeeping be delivered either on the job in an active live apiary or in a training environment with live bees. It was considered that trainees should be exposed to live bee hives since the outcomes are based on safe access, manipulation and management of bees. Advice received during consultation indicated that appropriate levels of skills and knowledge can only be acquired through intimate interaction with live bees.'</p> <p>These intentions are reflected in the Assessment Conditions as applicable.</p>

Key features	Examples of evidence	Met: Yes / No	Comments/ other evidence demonstrated Provide brief commentary on how the draft endorsed components meet the Quality Principles with specific reference to the evidence provided, including any evidence provided by the Equity and Editorial Reports
Support implementation	<ul style="list-style-type: none"> • Compliance with the TGA/National Register requirements for publication • Implementation advice is provided in a Companion Volume Implementation Guide that is ready for publication at the same time as the Training Package 	Yes	