



Submission to the review of agricultural and veterinary chemical regulatory framework

Skills Impact

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Foreword

Skills Impact has worked with industry, government and vocational education and training (VET) stakeholders for many years to understand and articulate the training needs of employers in the agriculture, horticulture, and allied industries. Every day, our team communicates with industry representatives, technical experts, and training providers to ensure that national qualifications reflect real work activities and current skills standards and practice. Through this work we capture information on skills gaps, emerging markets and changing work methods, as well as industry views on what is working in the training sector, what needs changing, and possible avenues for improvement.

Our stakeholders tell us that they welcome the establishment of the review panel and the broad-ranging scope of the review and look forward to significant change.

As Skills Impact's expertise is in VET, our submission does not make any direct recommendations about the framework but instead focusses on how VET supports the current framework, and how it might be used to support improvements.

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Executive summary

This submission outlines the process and functions of national, industry and government endorsed skills standards to support our recommendation that they are fit for purpose as the key instruments to inform and regulate the behaviour of a wide range of users of agvet chemicals including suppliers, wholesalers, retailers, and end users.

Our four main points are as follows:

- ## 1 Continue to use the national Training Packages

The *Agriculture, Horticulture and Conservation and Land Management (AHC) Training Package* contains national, industry endorsed skill standards and therefore using it as part of the regulatory framework will help to support national harmonisation of the training and assessment of chemical suppliers, advisers and users.
- ## 2 Recognise the flexibility inherent in the Training Packages

Skills Impact believe that the current AHC Training Package provides the necessary industry endorsed skill standards required to cover chemical use and supply, and with the contextualisation of Units of Competency (UoC or Unit) is flexible enough to support different approaches to regulation be it based on chemical used, application mode, pest, or purpose.
- ## 3 Updating Training Packages

If, as a result of this review, extensive changes are made to the Framework there are well-described and straightforward processes to make changes to the training package (occupational skill standards) as needed to suit the outcomes of this review and keep the training package relevant for use by regulators.
- ## 4 Maintaining operator currency

Learning is a journey and does not start and end with achievement of a Unit of Competency. Skills Impact supports VET training to underpin regulation and industry-based certification programs to provide future updates and ongoing currency of skills

About Skills Impact

Skills Impact is a not-for-profit, industry-owned organisation with industry members including the National Farmers' Federation (NFF) and ForestWorks. As a Skills Service Organisation (SSO), Skills Impact is contracted to the Department of Education, Skills and Employment (DESE) to review and develop vocational education and training (VET) Units of competency, skill sets and qualifications for the agriculture, horticulture and a range of other but related industries.

It is important to note that Skills Impact is not a training provider. Registered Training Organisations (RTOs), and others, base their curriculum and assessments directly on the nationally industry standards (products) developed and published by Skills Impact which is endorsed to be used nationally on the Australian Government website training.gov.au (TGA).

Skills Impact consistently engages with stakeholders across Australia to gather insights into industry trends and implications for workforce skills challenges and opportunities. The industry sector coverage of Skills Impact includes:

1. Agriculture and Production Horticulture

2. Amenity Horticulture, Landscaping and Conservation and Land Management
3. Aquaculture and Wild Catch Fishing
4. Animal Care and Management
5. Forestry, Timber, Wood and Paper Operations and Products
6. Meat industries
7. Seafood Industries
8. Food and Beverage
9. Racing and Breeding
10. Pharmaceutical Manufacturing.

Agvet chemicals touch the lives of our stakeholders every day as they are used to grow food, maintain sports fields and public spaces, keep pets and livestock healthy, and keep the environment free from pests that threaten health. Therefore, agvet chemicals are used in the majority of sectors that Skills Impact covers, as listed above.

Agvet chemical use in Training Packages

The *AHC Training Package* covers all the primary production and environmental sectors and includes UoC directly related to agvet chemicals. The Training Package has over 900 UoC, “packaged” into 99 qualifications, to cover a wide range of industries and occupations. Small groups of UoC have been compiled into 66 skill sets.

The 12 UoC designed specifically for chemical use are recognised by the code AHCCHMXXX, with the first X denoting the level i.e. 1, 2,3, 4 or 5 for Certificate 1, Certificate 2, Certificate 3, Certificate 4 or Diploma respectively. The Units are listed below:

AHCCHM101- Follow basic chemical safety rules
AHCCHM201- Apply chemicals under supervision
AHCCHM304- Transport and store chemicals
AHCCHM306- Prepare and apply chemicals for handheld 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

Table 1 Ag Chem Units in AHC Training Package

Not only are the chemical-related Units used extensively within the AHC Training Package, but some are also used in aquaculture and forestry qualifications as follows:

Unit of competency	Included in the following qualifications
AHCCHM201 Apply chemicals under supervision	Certificate II in Aquaculture Certificate II in Fisheries Compliance Support

AHCCHM304 Transport and store chemicals	Certificate III in Aquaculture Certificate III in Harvesting and Haulage (new) Certificate II in Forest Growing and Management (new)
AHCCHM307 Prepare and apply chemicals to control pest, weeds and diseases	Certificate III in Wood Panel Products Certificate III in Sawmilling and Processing Certificate III in Harvesting and Haulage (new) Certificate II in Forest Growing and Management (new) Certificate III in Forest Growing and Management (new) Certificate III in Aquaculture
AHCCHM404 Develop procedures to minimise risks in the use of chemicals	Certificate IV in Aquaculture
AHCCHM40 Plan and implement a chemical use program	Certificate IV in Aquaculture
AHCCHM501 Develop and manage a chemical use strategy	Diploma of Aquaculture

Table 2 Use of AgChem Units in other Training Packages

However, the AHCCHM Units are not the only UoC relevant to chemical and animal health products use in agriculture and horticulture and their respective supply chains that could be used to support an enhanced regulatory framework. There are over 60 other Units in the qualifications that relate to Pest Management, Record keeping, Work Health & Safety, Livestock, Cropping, Lifestyle and Services & supply. These are detailed in Appendix 1.

There is also a requirement in the forestry sector in Victoria for a Copper Chromium Arsenic (CCA) Commercial Operator Licence (COL) for people who operate a business that applies agricultural chemical products containing the active constituents CCA for a fee or reward in Victoria. This licence requires completion *FWPSAW3201 Treat timber* (or its previous equivalents *FPISAW3201A* or *FPISAW3201B*). It should also be noted that, due to the number of regulatory authorities in each state, other Training Packages may also have UoC covering specific job role that may reference agvet and other chemicals. One example is the pest control Units in the Certificate III in Urban Pest Management qualifications, contained in the Property Services Training Package.

Units of Competency do not describe training curriculum, instead they are written to describe work outcomes, skills and knowledge required and are nationally applicable regardless of chemical type, application method, or pest or disease being controlled. This makes them appropriate for use by regulators as the basis for permits or licences, especially if working towards national harmonisation of regulation.

A desktop scan of State-based regulations shows that completion of the Units marked in bold in Table 1 are required in New South Wales, Victoria, South Australia and Northern Territory, usually for both user and contractor permits or licences, and Queensland and Western Australia have added the Unit *AHCPMG301 - Control Weeds* has also been added.

Tasmanian requirements are similar though the website shows the previous version of *AHCCHM303A Prepare and Apply Chemicals* that has been superseded, but not been updated on the site.

Western Australia and Northern Territory have added a longer list of Units for their contractor licences noting that for Northern Territory all the Units cited have been superseded as follows:

General horticultural licence (herbicides, fungicides and insecticides)

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport, handle and store chemicals

AHCPMG201 Treat weeds

AHCPMG202 Treat plant pests, diseases and disorders

Horticultural licence (herbicides only)

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport, handle and store chemicals

AHCPMG201 Treat weeds

Viticulture licence

AHCCHM303 Prepare and apply chemicals

AHCCHM304 Transport, handle and store chemicals

FDFWGG3001A Apply chemicals and biological agents

FDFWGG3012A Monitor and control vine disorders and damage.

In Western Australia, those who apply pesticide for reward need to complete the following when using small portable hand-held operated sprayers (knapsack/backpack) are used to treat mainly weeds and other minor pests:

- AHCPMG301 - Control Weeds,
- AHCCHM304 Transport and Store Chemicals (Release 3)
- AHCCHM307 Prepare and Apply Chemicals to Control Pest, Weeds and Diseases (Release 1).

Where mechanical equipment is used to apply pesticides such as boom spraying or quadbike mounted or air blast equipment the required Units are:

- AHCCHM304 Transport and Store Chemicals (Release 3)
- AHCCHM307 Prepare and Apply Chemicals to Control Pest, Weeds and Diseases (Release 1)
- AHCPMG301 - Control Weeds
- AHCPMG302 - Control Plant Pests, Diseases and Disorders
- AHCCHM401 - Develop procedures to minimise risks in the use of chemicals
- AHCCHM402 - Plan and Implement a Chemical Use Program

Again, a number of the above Units have been superseded.

In summary, completion of two Units is consistently required by State authorities to underpin permit regimes. They are:

- **AHCCHM304- Transport and store chemicals**
- **AHCCHM307- Prepare and apply chemicals to control pest, weeds and diseases.**

In response to Question 11a, the AHC Training Package covers all primary production and environmental sectors.

Skills Impact supports the concept that the regulation for supply and use of agricultural chemicals and veterinary medicines should be the same as that currently exists, as many Australian farm businesses are comprised of a mixture of cropping and animal production.

Keeping the package up to date

We note from the above scan of regulators websites, that the sites occasionally reference superseded Units of competency. This is not unexpected given that Training Packages are under cyclical review. For example, the Units listed above in Table 1 above underwent change in 2017/18 as part of the review of the Pest Management qualifications. Some were reviewed again in 2019 during the development of the new applied agronomist qualification and may change again this year as part of the broadacre cropping project in 2020.

In 2020/2021 the crops and seeds project will address digital technology advancements in cropping industry. This may include the development of UoCs for the operation and use of drones and autonomous vehicles for precision spray applications. These UoCs may also in future be used to meet licencing requirements if introduced for the operation of this equipment.

In addition to the above described activities, in 2018 the Industry Reference Committee (IRC) responsible for decisions relating to the AHC Training Package approved and implemented a work schedule using a sector approach to review the entire AHC Training Package over a four-year period. This will include an improved focus on digital transformation and other industry trends.

Items raised in the Agvet Chemicals Regulatory Framework issues paper, if fully implemented, could result in skills gaps in the current Training Package as follows:

- Expanded training and licensing requirements for the supply of Agvet chemicals like those existing for users of these chemicals.
- The use of smart labels
- The need for skills in residue monitoring and management
- Licencing requirements for the use of precision technology (drones and autonomous vehicles) for the application of chemical on-farm
- Improved outcomes for environmental and human safety such as the development of a duty of care on users of Agvet chemicals to minimise the risks of harm to human health and the environment. This could simplify control of use management efforts as well as provide a comprehensive linkage between chemical use, recordkeeping and health, safety and environmental outcomes.

However, there are well-described and straightforward processes to make changes to keep pace with changes to the Framework. The requirement for changes and updates would be identified through regular industry and regulatory consultation and research, undertaken by the IRC and Skills Impact. Findings are then compiled into rolling 4-year IRC Skills Forecast documents that describe industry trends, opportunities and challenges, and identify skills gaps and emerging skills needs. Any Training Package development project must start with either a stand-alone, well-documented Case for Change or as a recommendation contained within an IRC approved Skills Forecast or annual update. The cases are reviewed, and potentially approved and scheduled for funding by the Australian Industry and Skills Committee (AISC).

Once the IRC Case for Change is approved and funded via the Commonwealth Department of Education, Skills and Employment, Skills Impact commences a review or development project on behalf of the IRC. This work usually takes less than 12 months to complete using cycles of consultation, draft documents and validation. Once the work is complete and approved by the IRC it is submitted to the AISC and State and Territory Ministers for final endorsement. Once endorsed, the new or revised Units, skill sets, and qualifications are published on training.gov.au, and are then available for use by RTOs, industry and policymakers.

Use of Units in regulation

Implications for regulation or licensing issues are identified in the 'Application' section of UoC and the 'Qualification Description' section of Qualifications. If there are no requirements, the following statement will appear: "No licensing, legislative or certification requirements apply to this Unit/Qualification at the time of publication".

Any use of UoCs or qualifications in regulation should be done so with a mechanism to update the regulation if, and when, the Unit is updated or replaced with a newer version.

Keeping learning relevant

Many of the inquiries Skills Impact receive demonstrate that many people only read the title of a UoC and do not understand the breadth of the Unit, nor how it can be further contextualised to cover a large range of work activities.

Skills Impact do not develop specific Units for different types of equipment, application modes or pests or chemicals. The Units are designed to be delivered to meet learners needs by tailoring the training to the learning situation. This is known as contextualisation and is carried out by the RTO.

Contextualisation involves additions or amendments to the UoC to suit different delivery methods, learner profiles, or specific enterprise requirements. Contextualisation must not:

- diminish the breadth of application of the competency to reduce its portability
- narrow down the competency outcomes and limit its use
- remove the content of any element and performance criteria related to the Unit involved.

Trainers and assessors need to keep pace with industry technologies and ensure that learning activities and assessments accurately reflect workplace activities. RTOs will need regular contact with industry to ensure the currency and validity of all activities conducted in simulated environments.

Keeping learning current

A qualification, or completion of a Unit of competency, recognises an individual's competency at a point in time.

Skills Impact supports the concept of industry-based accreditation or certification programs that use Units or qualifications for entry purposes but also ask participants to take part in continued professional development so people keep their skills current over time.

This method of retaining currency over time is preferable to asking an operator to repeat the original training course.

The National Working Party on Pesticide Application

The NWPPA focuses on spray drift, training standards for pesticide applications, best management practices and support to stakeholders in understanding regulatory policy.

Skills Impact supports the 2015 findings of the National Working Party on Pesticide Application (NWPPA) response to John Kent's 2013 paper on chemical user training.

<https://nwppa.net.au/wordpress/wp-content/uploads/2015/02/NWPPA-A-review-of-training-of-pesticide-users-in-Australia.pdf>

We acknowledge the significant role the NWPPA played in the 2017/2018 review of the Units of competency, as part of the Pest Management project, when all the existing UoC were updated to current industry work standards and new Units were written.

Skills Impact supports the ongoing involvement of a high-level national group such as the NWPPA to help maintain the currency of the AHC Training Package, and potentially consistency of delivery, providing both regulators and industry with the confidence in the currency of chemical user and supplier training.

Conclusion

Skills Impact welcomes the current review and we look forward to future discussion with chemical user groups, regulators and policy makers about how best to fully extract the value that is contained in the Training Packages and its components to ensure the safe use and handling of the chemicals.

APPENDIX 1

Additional Units of Competency that relate to agricultural and veterinary chemical use as part of work or job functions

Pest Management

- AHCPMG201- Treat weeds
- AHCPMG202- Treat plant pests, diseases and disorders
- AHCPMG301- Control weeds (also a regulatory requirement for ACUP in Queensland)
- AHCPMG302- Control plant pests, diseases and disorders
- AHCPMG306- Determine pest control techniques
- AHCPMG307- Apply animal trapping techniques
- AHCPMG308- Implement pest management strategies
- AHCPMG309- Apply pest animal control techniques
- 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
- AHCPMG410- Implement the pest monitoring and evaluation plan
- AHCPMG411- Ensure compliance with pest legislation
- AHCPMG412- Develop a pest management plan
- AHCPMG413- Define the pest problem
- AHCPMG506- Manage the implementation of legislation
- AHCPMG507- Develop a regional pest management plan
- AHCPMG508- Develop a system to monitor and evaluate the pest management plan
- AHCPMG509- Investigate a pest control failure
- AHCPMG510- Develop a pest survey strategy

Record keeping

- AHCAGB302 - Keep production records for a primary production business
- AHCWRK206- Observe enterprise quality assurance procedures
- AHCWRK306- Comply with industry quality assurance requirements
- AHCWRK401- Implement and monitor quality assurance procedures
- AHCWRK512- Plan, implement and review a quality assurance program

Work Health and Safety

- AHCWHS201- Participate in work health and safety processes
- AHCWHS301- Contribute to work health and safety processes
- AHCWHS401- Maintain work health and safety processes
- AHCWHS502- Manage work health and safety processes

Livestock

- AHCLSK202- Care for health and welfare of livestock
- AHCLSK301- Administer medication to livestock
- AHCLSK309- Implement animal health control programs
- AHCLSK325- Castrate livestock
- AHCLSK331- Comply with industry animal welfare requirements
- AHCLSK332- Monitor animals in intensive production systems
- AHCLSK334- Plan, prepare and conduct mulesing procedures
- AHCLSK335- Conduct dropped ovary technique procedures for spaying cattle
- AHCLSK401- Develop feeding plans for a production system
- AHCLSK402- Develop livestock feeding plans
- AHCLSK404- Implement and monitor animal welfare programs
- AHCLSK405- Implement intensive production systems

AHCLSK406- Oversee animal marking operations (includes the administration of pain-relieving medicines)
AHCLSK407- Plan and monitor intensive production systems
AHCLSK409- Supervise animal health programs
AHCLSK504- Develop livestock health and welfare strategies
AHCLSK505- Develop production plans for livestock

Cropping

AHCBAC307 - Maintain agricultural crops
AHCBAC310 - Maintain pastures and crops for livestock production
AHCBAC404 - Plan and implement agricultural crop maintenance
AHCBAC507 Plan and manage long-term weed, pest and disease control in crops
AHCDP403- Plan and implement seed crop maintenance
AHCPCM403- Implement an integrated pest management program
AHCAGB514 - Manage application of agents to crops or pastures
AHCBER303 - Carry out emergency disease or plant pest control procedures at infected premises (about to be superseded)
AHCBER502 - Manage the implementation of an emergency disease or plant pest control program

Lifestyle (Amenity Horticulture)

AHCTRF309- Implement a grassed area maintenance program
AHCTRF403- Develop a sports turf maintenance program
AHCTRF506- Manage sports turf renovation programs
AHCTRF507- Develop sports turf management programs
AHCPGD304- Implement a landscape maintenance program
AHCPGD503- Manage parks and reserves

Service and supply

AHCMER403- Provide advice and sell farm chemicals
AHCMER404- Provide advice on agronomic products
AHCMER405- Provide advice on livestock products
AHCMER406- Provide information on fertilisers and soil ameliorants