Modification history

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| Release | Comments |
| Release 2 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0. |

| AHCCHM303 | Prepare and apply chemicals |
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| Application | This unit of competency describes the skills and knowledge required to prepare and apply chemicals for the control of pests, weeds and diseases, using general application equipment.  The unit applies to individuals who work under broad direction and take responsibility for their own work and use discretion and judgement in the selection and use of available resources.  Licensing requirements apply to this unit but vary according to state/territory jurisdictions. Users are advised to check with their relevant regulatory authority. |
| Prerequisite Unit | Nil |
| Unit Sector | Chemicals (CHM) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1.Determine the need for chemical use and prepare an application plan | 1.1 Identify the pest, weed or disease, and assess the need for control  1.2 Assess the requirement for chemical use as an option  1.3 Assess health and safety hazard, risks and controls for different chemical options  1.4 Confirm requirement for chemical application according to workplace procedures  1.5 Assess off target risk for application options  1.6 Assess the environmental risk for application options  1.7 Prepare application plan according to workplace procedures |
| 2.Prepare chemical mixes | 2.1 Determine application parameters using the application plan according to workplace procedures  2.2 Identify hazards, assess risks and implement control measures for application method according to workplace health and safety procedures  2.3 Interpret and apply requirements from manufacturer chemical labels  2.4 Identify, select and use appropriate personal protective equipment for application process  2.5 Select appropriate mixing equipment and suitable location for mixing and charging according to workplace procedures  2.6 Mix chemicals according to manufacturer instructions and registered use  2.7 Clean mixing equipment and spills according to manufacturer instructions and workplace procedures  2.8 Confirm that personnel have been notified of chemical application according to workplace practice |
| 3.Calibrate application equipment | 3.1 Select application equipment for chemical according to application plan and workplace procedures  3.2 Conduct pre-operational checks of application equipment according to operator instructions  3.3 Calibrate equipment according to manufacturer instructions and application plan  3.4 Charge equipment with chemical according to operating instructions and workplace safety procedures |
| 4.Apply chemicals | 4.1 Monitor and assess weather conditions and forecasts to minimise off target movement of chemicals  4.2 Select and use appropriate PPE according to manufacturer recommendations and workplace procedures  4.3 Apply chemical according to label directions, safety data sheets and application plan  4.4 Assess health and safety hazards and risks and implement controls according to workplace procedures  4.5 Clean up spills according to manufacturer instructions and workplace procedures |
| 5.Clean up equipment and complete records | 5.1 Clean and decontaminate application equipment according to workplace procedures  5.2 Dispose of chemicals and used containers according to manufacturer instructions and regulatory requirements  5.3 Clean and store personal protective equipment according to workplace procedures  5.4 Record and report safety incidents according to workplace procedures and regulatory requirements  5.5 Record details of chemical application according to workplace procedures |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Reads and interprets safety data, labels, manufacturer instructions, operating instruction and other documentation and consolidates information to determine chemical application actions and activity |
| Writing | * Accurately records and completes organisational records using clear language and correct spelling, grammar and terminology |
| Numeracy | * Performs mathematical calculations to determine rates of application chemical mixtures and calibration of equipment |
| Oral Communication | * Effectively participates in verbal exchanges using active listening and to convey and clarify chemical applications notifications |
| Navigate the world of work | * Takes responsibility for following policies, procedures and regulations * Identifies and implements manufacturer requirements for chemicals |
| Get the work done | * Takes responsibility for planning, sequencing and prioritising tasks required for chemical application activities |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCCHM303 Prepare and apply chemicals | AHCCHM303 Prepare and apply chemicals | Updated to meet Standards for Training Packages  Changes to Performance Criteria for clarity | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |

| TITLE | Assessment requirements for AHCCHM303 Prepare and apply chemicals |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.  There must be evidence that the individual has on at least one occasion demonstrated the ability to safely prepare and apply chemicals to a crop ensuring they have:   * determined the need for chemical application by assessing the pest, disease or weed * developed an application plan * identified health and safety hazards, risk and implemented control procedures and used personal protective equipment according to workplace procedures * interpreted chemical labels and applied chemical according to manufacturer requirements, safety data sheets and application plan * determined the chemical application parameters according to workplace and manufacture requirements * monitored and assessed weather conditions of application * selected, conducted pre-operational checks according to operator instructions * completed at least 1 calibration activity for application equipment * mixed and loaded chemicals in accordance with label and application plan * applied chemicals safely according to labels, regulations and workplace requirements * cleaned equipment, spills and disposed of waste according to procedures * Maintained records and reported incidents according to workplace procedures and regulations. | |

| Knowledge Evidence |
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| An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:   * options for pest, disease weed control including: * chemical * cultural * biological * Integrated Pest Management * pest and disease resistance * chemical labels, SDS formats * impact of weather factors on the safe and effective application of chemicals * factors that determine off target contamination including: * droplet size * wind speed * temperature * temperature inversions * controlling spray drift and air concentrations * risk factors of chemical application including: * human and animal health * spillage * residues in environment, plants and animals * withholding periods * mixing chemicals including mixing order, adjuvants and water quality * requirements for disposal of excess chemicals, clearing spillages and equipment clean up * selecting and operating suitable application equipment * features, functions and calibration techniques for powered and hand held application equipment including, nozzle identification, selection, operation and use * legislation, regulations and licensing requirements in relation to chemical use * APVMA policy on spray drift management * parameters affecting the selection of chemical and equipment for application including, common pests, weeds and diseases, rate or dose, type of application equipment, set-up requirements and amount to be applied. |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in a typical workplace environment or an environment that accurately represents workplace conditions * resources, equipment and materials: * use of chemicals * use of personal protective equipment * access to application equipment * access to chemical measuring and mixing equipment * specifications: * use of specific workplace documents such as work instructions and procedures for chemical application * access to chemical labels and safety data sheets (SDS) * access to regulations, relevant to use of chemicals * access to manufacturers operation and maintenance instructions for equipment * access to weather reports.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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