



Australian Government

AHCCHM310 Conduct manual fumigation of vertebrate and invertebrate pests

Release: 1

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Modification History

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

Application

This unit of competency describes the skills and knowledge required to determine, apply, monitor and clean up fumigants for the control of vertebrate and invertebrate pests.

The unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.

State or territory licensing, legislative or certification requirements apply in some jurisdictions.

Pre-requisite Unit

Nil

Unit Sector

Chemicals (CHM)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine type and method of fumigation	1.1 Identify the pest characteristics and degree of infestation 1.2 Assess the infestation and determine threshold for fumigant treatment 1.3 Identify fumigant treatment options for vertebrate and invertebrate pests 1.4 Identify and select fumigant and its application rate according to

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	chemical label and pest to be controlled 1.5 Identify hazards, assess risks and implement control measures for pest fumigation activities
2. Prepare to use fumigant according to label and safety data sheets (SDS)	2.1 Identify, select, fit and use personal protective equipment (PPE) according to chemical label instructions and workplace procedures 2.2 Identify and calculate application rates for fumigation conditions according to chemical label instructions 2.3 Prepare hazard exclusion barriers, signage and emergency response procedure according to health and safety in the workplace procedures and legislative and regulatory requirements 2.4 Identify hazards, assess risks and implement control measures according to health and safety in the workplace procedures
3. Conduct fumigation	3.1 Ensure emergency response resources are ready and available according to workplace emergency response procedure 3.2 Check current weather and forecast conditions are favourable for fumigation activity to proceed 3.3 Create seal in treatment area to ensure maximum effectiveness of fumigant according to workplace and chemical label instructions 3.4 Apply fumigant according to chemical label instructions and workplace procedures 3.5 Transport and store fumigants according to workplace procedures and chemical transport and storage regulations
4. Monitor fumigation	4.1 Monitor fumigation site and control access to maintain safe conditions according to chemical label instructions and workplace procedures 4.2 Monitor fumigation site for effective fumigation according to workplace procedures 4.3 Assess fumigation seal and integrity and take action to rectify according to workplace procedures
5. Ventilate fumigated area	5.1 Determine ventilation parameters according to chemical label instructions and workplace procedures 5.2 Calculate ventilation time according to chemical label instructions and workplace procedures 5.3 Ventilate site according to chemical label instructions, SDS,

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures and legislative and regulatory requirements 5.4 Check for residual fumigant according to chemical label instructions and workplace procedures
6. Clean up following fumigation	6.1 Remove site exclusion barriers, signs when safe to do so according to workplace procedures 6.2 Clean, decontaminate, check and store fumigation equipment, safety signs and equipment and PPE according to chemical label instructions, workplace procedures and legislative and regulatory requirements 6.3 Dispose of all waste according to chemical label instructions
7. Record application details	7.1 Record details of fumigation activities and application according to workplace practices and legislative and regulatory requirements 7.2 Update chemical and resource register for used and remaining stock according to workplace procedures and legislative and regulatory requirements 7.3 Record and report safety incidents according to workplace procedures and legislative and regulatory requirements

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.

Skill	Description
Reading	Read and interpret SDS, chemical labels, manufacturer instructions, signs and symbols, equipment operating instruction and other documentation and consolidates information to determine fumigant application actions and activity
Writing	Accurately record and complete organisational and legal records using clear language and terminology
Numeracy	Perform mathematical calculations to determine rates of application of fumigant
Navigate the world of work	Take responsibility for following policies, procedures and regulations

Skill	Description
	Identify and implement chemical label requirements for fumigation
Get the work done	Take responsibility for planning, sequencing and prioritising tasks required for fumigation application activities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCCHM310 Conduct manual fumigation of vertebrate and invertebrate pests	AHCCHM305 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

Links

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

Assessment Requirements for AHCCHM310 Conduct manual fumigation of vertebrate and invertebrate pests

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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 on at least one occasion the individual has demonstrated that they have fumigated vertebrate and invertebrate pests manually, including:

- selected the appropriate fumigant option for the pest characteristics and infestation
- determined fumigation parameters according to manufacturer instructions and safety data sheets (SDS)
- prepared fumigant according to chemical manufacturers instructions
- identified health and safety hazards, risks and implemented controls for fumigation activities
- transported, handled and stored fumigants according to safety procedures, fumigant label and legislative requirements
- maintained the fumigant inventory and disposed of waste fumigant and materials according to workplace and environmental procedures
- implemented emergency response procedures to maintain a safe site
- prepared site for fumigation and erected exclusion barriers and signage
- checked weather conditions and forecasts to decide on fumigation progression
- sealed treatment area, applied the fumigant, monitored fumigation activity and ventilated sites
- checked for residual fumigant according to workplace procedures
- restored the treatment area, cleaned and decontaminated the equipment
- complied with chemical manufacturers' instructions, workplace and legislative and regulatory requirements, safety procedures, fumigant label and legislative requirements, and environmental procedures
- maintained records, stock inventories and reported on work activities and incidents. according to workplace and legislative and regulatory requirements.

Knowledge Evidence

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:

- pests and their characteristics for fumigation control
- primary vertebrate and invertebrate pests that can be controlled by manual fumigation methods
- pest control strategies and the role of fumigation, including:
 - chemical
 - cultural
 - biological
 - mechanical
 - Integrated Pest Management
- fumigants their use and action
- fumigant selection criteria to consider, including:
 - size of area
 - weather conditions
 - type of material concentration
 - safety implications
- interpretation and use of labels and SDS
- techniques to seal fumigation treatment sites
- site characteristics and conditions for suitable for fumigation
- relevant legislation and regulatory requirements for fumigant use
- risk factors including human and animal health, weather, leakage, spillage and environment
- safety and environmental requirements for disposal of fumigant, spills and waste materials
- clean-up procedures and decontamination
- pre and post fumigation safety procedures
- transporting and storage requirements of fumigants, including:
 - legislation and regulations that apply to transporting and storing chemicals including:
 - transport vehicle requirements
 - dangerous and hazardous chemicals
 - placarding requirements
- processes and procedures for the disposal of excess, unwanted, expired fumigants and waste including industry disposal programs
- health and safety in the workplace requirements including personal protective equipment (PPE) and manual handling
- record keeping procedures and practices for workplaces and regulations
- tests and testing for residual fumigants
- inventory and stock records and procedures for fumigants.

Assessment Conditions

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
- access to storage facilities for fumigants
- resources, equipment and materials:
 - site requiring fumigation
 - fumigants
 - PPE
 - fumigation aeration equipment
 - fumigant measuring and mixing equipment
 - fumigant testing equipment
 - materials required to seal treatment area
- specifications:
 - specific workplace documents, including work instructions and procedures for fumigation
 - chemical labels and SDS
 - legislation and regulations relevant to handling, storage, transport and use of fumigants
 - manufacturers' and maintenance instructions for hand fumigation equipment
 - relevant standards for residual fumigation test results.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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