



Australian Government

Department of Education, Employment and Workplace Relations

AHCBAC406A Maintain grain quality in storage

Release: 1

AHCBA406A Maintain grain quality in storage

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers maintaining grain quality in storage and defines the standard required to: implement pre-determined integrated pest management strategies; monitor and maintain hygiene; monitor and control pests and contaminants; investigate and recommend options for technology, systems or practices that will improve grain quality.
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Application of the Unit

Application of the unit	This unit applies to those whose job role includes assessing and maintaining hygiene in grain storage areas, as well as monitoring the grain for deterioration or pests and contaminants.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

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1. Maintain hygiene in storage areas	<p>1.1.Storage conditions and facilities are regularly tested to maintain the standard of hygiene in stored grain.</p> <p>1.2.The need for repairs and maintenance is identified, and either carried out or a report of the need is made.</p> <p>1.3.Treatments are applied to storage facilities to maintain hygiene standards and in line with the grain storage program.</p> <p>1.4.The application of all treatments used is accurately recorded in line with the grain storage program.</p>
2. Monitor grain from arrival to dispatch	<p>2.1.Before the grain is stored, samples are taken for testing to ensure a complete record of the quality of the grain.</p> <p>2.2.Samples of the grain are taken regularly for testing to ensure purity standards in the grain.</p> <p>2.3.At dispatch, the grain is checked for quality and against the records taken at the point of storage.</p> <p>2.4.Test samples are taken, prepared and forwarded for analysis according to prescribed guidelines.</p> <p>2.5.Clear and accurate records of grain movements in and out of storage are created, maintained and kept as prescribed in the grain storage program.</p> <p>2.6.Recommendations are made to adopt new technology, systems or practices that will improve or maintain grain quality in storage.</p> <p>2.7.All activities around the grain storage facilities are undertaken according to the Occupational Health and Safety (OHS) guidelines detailed in the grain storage program.</p>
3. Monitor and maintain grain condition in storage	<p>3.1.Regular checks of grain in storage are conducted to maintain continued freedom from contaminants and deterioration.</p> <p>3.2.Periodical checks of grain in long-term storage are conducted for quality factors and viability according to enterprise requirements.</p> <p>3.3.Where necessary, samples of the grain are taken for testing in a laboratory setting.</p> <p>3.4.Where test samples are required, they are taken, prepared, and forwarded for analysis according to industry quality assurance and laboratory requirements.</p> <p>3.5.Clear and accurate records of grain tests and inspections are created, maintained and kept as</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>described in the grain storage program.</p> <p>3.6. The condition of storage facilities is monitored using the schedule and methods outlined in the grain storage program.</p> <p>3.7. Where it is required, appropriate corrective action is taken to maintain grain quality.</p> <p>3.8. All activities around the grain storage facilities are undertaken according to the OHS guidelines detailed in the grain storage program.</p>
4. Control weeds and pests in storage are	<p>4.1. Grain is monitored according to the monitoring points, targets and methods outlined in the grain storage program.</p> <p>4.2. Samples of the grain are appropriately taken to test for pest infestation.</p> <p>4.3. Where it is required, the sample is prepared and forwarded for analysis according to the prescribed guidelines.</p> <p>4.4. Pests in storage are controlled according to the guidelines in the grain storage program.</p> <p>4.5. Enclosed grain storage area is fumigated, and the surrounding environment is kept clean according to the integrated pest management strategy in the grain storage program.</p> <p>4.6. The sources of any infestations are identified and steps are taken to control them in line with the integrated pest management strategy in the grain storage program.</p> <p>4.7. All pest control activities are undertaken in line with the OHS guidelines detailed in the grain storage program.</p> <p>4.8. Clear and accurate records of treatments to the grain and storage facilities are created, maintained and kept as described in the grain storage program.</p> <p>4.9. Clear and accurate records of all chemical use in the storage facility, and the applicable withholding periods are created, maintained and kept as described in the grain storage program.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- setup and operate fumigation and pesticide application equipment
- sample loads and grain in storage, and conduct a simple analysis
- create, maintain, use and keep clear and trackable records
- use a range of communication equipment, including in emergency situations
- inspect and test silos
- identify insects, pests and other factors that affect grain quality
- set up and operate inert atmosphere equipment
- handle and mix chemicals for baiting, fumigation, spraying, and other forms of application
- interpret monitored information on pests
- plan and schedule weed, pest and/or disease control including amending plans during the operations
- calculate mass and volumes of grain and grain storages
- observe, identify and react appropriately to environmental implications and OHS hazards
- use literacy skills to read, interpret and follow organisational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- the types, levels and control methods for a range of pests and contaminants
- silo and temporary storage configuration and operation
- chemical handling and dangerous goods requirements
- the range of applicable pesticides, their uses, application methods and handling requirements
- commodity types, varieties and grades
- handling requirements for gas cylinders
- insect life cycles and optimum conditions for development
- Integrated Pest Management (IPM) principles and the procedures used within the organisation
- legislative requirements, codes of practice and enterprise procedures relating to the purchase, transport, storage, use and disposal of pesticides and fumigants, OHS and environment

REQUIRED SKILLS AND KNOWLEDGE

- client's sampling and classification requirements
- common grain pests and their general control methods
- appropriate action to be taken in contingency situations
- marketing requirements and options for grain growers
- equipment available and its uses, limitations and OHS requirements
- site hazards and sound management practices and processes to minimise noise, odours, and debris from grain storage operations
- chemical handling and dangerous goods requirements
- developments and options available for maintaining or improving the quality of grain during storage.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:</p> <ul style="list-style-type: none"> • implement pre-determined integrated pest management strategies • monitor and maintain hygiene • monitor and control pests and contaminants • investigate and recommend options for technology, systems or practices that will improve grain quality.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Factors affecting grain quality in storage may include:	<ul style="list-style-type: none"> • the presence of water or water damage • presence and activity of pests (including insects, moulds, birds and rodents) • dead vertebrate pests in storage • breakdown of storage security and integrity (e.g. holes, cracks, poor sealing, etc.) • grain moisture migration • excessive dust levels • high pesticide and fumigant residues • legal withholding periods.

Unit Sector(s)

Unit sector	Broadacre cropping
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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