



Australian Government

AHCBAC415 Maintain grain quality in storage

Release: 1

AHCBA415 Maintain grain quality in storage

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to maintain grain quality in storage and includes assessing and maintaining hygiene in grain storage areas, as well as monitoring the grain for deterioration, pests and contamination.

The unit applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources.

Licensing or certification for the use of fumigants and poison baits is strictly controlled in Australian states and territories. Users must check with their relevant regulatory authority before use.

Pre-requisite Unit

Nil

Unit Sector

Broad Acre Cropping (BAC)

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. Maintain hygiene in storage areas	1.1 Test storage conditions and facilities for compliance with grain storage hygiene standards 1.2 Identify, report or repair damage and faults to storage areas according to workplace procedures 1.3 Apply treatments to storage facilities to ensure hygiene standards are maintained according to grain storage program

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.4 Maintain storage environment according to biosecurity procedures 1.5 Record application of treatments according to workplace procedures
2. Monitor grain quality from arrival to dispatch	2.1 Collect samples of grain and refer for testing prior to storage 2.2 Sample grain at a frequency specified in sampling procedures to ensure compliance with purity standards 2.3 Check grain quality at time of dispatch against records at point of storage for consistency 2.4 Take, prepare and forward test samples for analysis according to workplace procedures and industry standards 2.5 Maintain records of grain storage movement according to grain storage program 2.6 Research and recommend technology, systems or practices to improve or maintain grain storage quality 2.7 Implement work health and safety policies for activities around the grain storage facilities
3. Monitor and maintain grain condition in storage	3.1 Check stored grain for contaminants and deterioration according to workplace procedures and schedules 3.2 Check grain in long-term storage for quality factors and viability according to workplace procedures and schedules 3.3 Collect, prepare and send samples of grain for laboratory testing according to industry quality assurance and laboratory standards 3.4 Create and maintain records of grain tests and inspections according to grain storage program. 3.5 Monitor condition of stored grain according to schedule and methods specified in grain storage program 3.6 Implement corrective action to maintain grain quality standards according to workplace procedures 3.7 Ensure grain storage activities and facilities management are conducted according to grain storage program
4. Control weeds and pests in storage area	4.1 Monitor grain according to the monitoring points, targets and methods outlined in the grain storage program 4.2 Collect samples of grain to test for pest infestation 4.3 Prepare and forward sample for analysis according to workplace

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	procedures and industry standards 4.4 Control pests in storage according to grain storage program 4.5 Apply fumigants and treatments in enclosed stored grain and surrounding environment according to pest management strategy and grain storage program 4.6 Identify and control sources of infestation according to the pest management strategy and biosecurity procedures in grain storage program 4.7 Create and maintain records of treatments to grain and storage facilities according to grain storage program

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	Research and analyse journals, documentation and digital media to identify new technologies and procedures for grain storage
Writing	Design and develop records and recordkeeping procedures for grain storage activities using clear and easily understood language

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBA415 Maintain grain quality in storage	AHCBA406 Maintain grain quality in storage	Edited Application for clarity Minor change to Element 2 for clarity Changes and consolidation of Performance Criteria for clarity	Equivalent

Code and title current version	Code and title previous version	Comments	Equivalence status
		Foundation Skills refined Performance Evidence and Knowledge Evidence clarified Amended structure of Assessment Conditions	

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 AHCBA415 Maintain grain quality in storage

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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 monitored, and maintained the quality of grain in storage and has:

- sampled grain delivered for storage, and conducted basic grain quality analysis
- created, maintained and used clear and traceable records during grain storage, including:
 - application of treatments to stored grain and facilities
 - movement of grain while in storage
 - inspections, sampling and testing of grain
 - chemicals and treatments used and the applicable withholding periods
- inspected and tested silos for hygiene, contamination and damage
- identified insects, pests and other factors affecting grain quality
- treated grain and grain storage facilities and surrounds including:
 - planned and scheduled weed, pest and disease control
 - setup and operated fumigation and pesticide application equipment
 - set up and operate inert atmosphere equipment
 - handled and mixed chemicals for baiting, fumigation, spraying, and other forms of treatment
- interpreted and monitored information on pests
- calculated mass and volumes of grain and grain storage facilities
- monitored and maintained hygiene and control of pests and contaminants
- investigated and recommend options for technology, systems or practices required to improve grain quality.

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:

- types, levels and control methods for a range of pests and contaminants
- permanent and temporary storage configurations and operations, including:
 - silos
 - storage bags
 - sheds and bunkers
 - underground pits
- chemical handling and dangerous goods requirements
- range of applicable pesticides, their uses, application methods and handling requirements
- grain commodity types, varieties and grades, marketing requirements and options for grain growers
- 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 workplace procedures relating to:
 - the storage and quality of grains
 - the purchase, transport, storage, use and disposal of pesticides and fumigants
 - work health and safety and environment
- sampling and classification requirements of grains
- common grain pests and their general control methods, including:
 - vertebrate
 - non-vertebrate
- equipment used in grain storage facilities and its safe use
- site safety hazards and management practices and processes, including:
 - minimise noise
 - odours
 - debris from grain storage operations
 - dust and fire risk
 - working at heights and confined spaces with storage bins
 - power lines and elevated equipment safety.
- chemical handling and dangerous goods requirements
- industry hygiene and quality standards
- developments and options available for maintaining or improving the quality of grain during storage
- workplace biosecurity policies and procedures
- record keeping systems and mandatory traceability requirements.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated on a farm, grain processing plant or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - grain storage facilities
 - digital or analogue record keeping system
 - chemicals, fumigants and measuring and application equipment
- specifications:
 - specific workplace policies, procedures and forms
 - manufacturer operating instructions for equipment and machinery
 - safety data sheets (SDS)
 - workplace instructions

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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