



Australian Government

AHCBAC516 Manage the harvest of crops

Release: 1

AHCBA516 Manage the harvest of crops

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 plan a harvesting strategy, determine the readiness, quantity and value of the crop and plan and oversee the harvest of a crop.

The unit applies to individuals who demonstrate deep knowledge in a specific technical area, take personal responsibility and exercise autonomy in undertaking complex work. They organise the work of self and others and analyse, design and communicate solutions to sometimes complex problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

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. Determine crop quality	1.1 Assess potential crop yield from data collected in the field 1.2 Test and assess crop quality in the field according to workplace and industry standards 1.3 Estimate the pre-harvest value of crop from tests and assessments
2. Determine crop	2.1 Refer pre-harvest samples to laboratory or marketing agent to

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
readiness	determine potential crop quality 2.2 Monitor weather conditions to estimate rate of ripening 2.3 Monitor crop maturity and estimate optimal crop harvest commencement period 2.4 Assess incidence of pests and determine pre-harvest treatment requirements 2.5 Select pre-harvest treatments to ensure crop meets market requirements and industry standards 2.6 Check adherence to work health and safety and environmental requirements throughout the application of pre-harvest treatments
3. Assess the need for insurance	3.1 Confirm commitments to insure the crop 3.2 Estimate crop value 3.3 Insure crop according to estimates and commitments 3.4 Analyse, assess and implement strategies to manage financial risk
4. Plan harvest strategy	4.1 Estimate harvest commencement date and timing 4.2 Determine equipment, technologies, and labour resources required for harvest 4.3 Reconcile required equipment and labour against available resources and determine contract requirements 4.4 Plan and organise equipment preparation prior to harvest 4.5 Plan application of required pre-harvest pest control treatments according to crop assessment 4.6 Determine and arrange required licenses, permits and notifications 4.7 Determine and document order of harvest in harvest plan
5. Plan for work health and safety hazard management	5.1 Communicate workplace health and safety procedures to harvesting workforce 5.2 Implement controls to reduce work health and safety hazard and risks 5.3 Monitor, identify and assess health and safety hazards and risks for each stage of harvesting process
6. Plan for fire prevention and control	6.1 Evaluate the property and identify fire hazards and risks 6.2 Develop a fire prevention and control strategy to manage fire risk

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	6.3 Monitor implementation of fire prevention and control strategy and amend according to prevailing conditions 6.4 Prepare fire breaks specified in fire prevention and control strategy 6.5 Check firefighting equipment complies with fire authority requirements and fire prevention and control strategy 6.6 Implement community fire control practices
7. Decide on storage and delivery requirements	7.1 Allocate crop storage facilities, and plan and arrange delivery of crop according to harvesting plan 7.2 Check temporary silos, storage bins and other containers are located for efficient harvesting and transport operations 7.3 Identify work health and safety hazards and assess risk from silo operation and implement controls 7.4 Plan storage for flexible marketing and distribution initiatives 7.5 Review planned crop transport resources against actual and amend workforce/contractor needs accordingly 7.6 Identify strategies and resources to dry crops according to harvest plan
8. Manage harvest operations	8.1 Monitor performance of harvest plan and implement contingencies to address inconsistencies 8.2 Monitor adherence to health, safety and environmental procedures and implement remedial action for breaches 8.3 Monitor harvest operations to ensure efficient and timely completion 8.4 Monitor crop quality during crop harvest and segregate and store into marketing grades according to harvesting plan 8.5 Implement enterprise biosecurity policies
9. Record production level and review cropping strategies	9.1 Maintain records of harvest according to workplace procedures 9.2 Monitor and evaluate crop yields against forecast production levels 9.3 Review harvest plan and production outcomes and recommend changes to production plan

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	Identify and extract information for managing harvest operations from complex texts, reports, maps and plans including legislation and regulations, policies and procedures to formulate organisational plans
Writing	Write detailed plans and procedural texts, including contingencies, for agricultural workforce and contractors for the purpose of informing on harvesting activities and performance targets, taking into account the needs of a culturally and linguistically diverse workforce
Oral Communication	Establish and maintain complex and effective communications when negotiating contracts and informing work teams and contractors of work requirements and performance targets
Numeracy	Use highly-developed numeracy skills to interpret complex financial information and perform calculations to translate estimates of operational costs and scheduling for inclusion in harvest management plans and costings

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBA516 Manage the harvest of crops	AHCBA506 Manage the harvest of crops	Edited Application for clarity Change to sequencing, consolidation and editing of Performance Criteria for clarity Foundation Skills refined Performance Evidence and Knowledge Evidence clarified Amended structure of Assessment Conditions	Equivalent

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 AHCBC516 Manage the harvest of crops

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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 prepared and overseen the harvest of an agricultural crop on at least one occasion and has:

- planned and implemented harvesting operations
- organised and scheduled the selection, maintenance and use of technologically efficient harvesting plant and equipment
- established processes or strategies, procedures and controls for crop harvesting
- assessed crop quality, quantity and value of potential yields
- planned and negotiated workforce, contracts and agreements
- communicated instructions, plans, scheduled and performance targets to key stakeholders
- observed, identified and respond to environmental implications and work health and safety issues according to policies and procedures
- assessed financial risk and implemented insurance processes to mitigate risk
- developed management procedures for health, safety, climate and fire risk
- organised logistical requirements for harvesting operations, including:
 - harvesting
 - storage and delivery
 - licenses, permits and notifications
 - reconciliation of equipment and labour against available resources and contract requirements
 - temporary silos, storage bins and other containers for efficient harvesting and transport operations
 - contingencies to address harvest plan inconsistencies
 - records of harvest
- assess and classify crop grades and segregate crops for storage according to marketing plan and industry standards
- manage crop pre-harvest and post-harvest pest and spoilage controls

- implemented workplace health, safety, biosecurity and environmental policies.

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:

- range and functions of harvesting machinery and equipment
- precision agriculture and the role of technology in improving efficiencies, including:
 - self-drive, auto steer, global navigation satellite systems (GNSS) and laser technologies
 - digital and remote sensors
 - remote piloted systems
 - controlled traffic farming (CTF) principles and impacts
 - variable rate technology (VRT)
 - capability and use of harvesting equipment
 - yield mapping
- crop quality and quantity measurement and assessment techniques and parameters
- crop market information and sources
- contracting requirements
- financial risk management including:
 - valuing crops
 - assessing financial risk
 - mitigating risk and insuring crops
- management and maintenance of harvested crop including:
 - moisture content, including drying and aeration
 - pest management and treatments
 - storage options and availability
- managing fire risk on farms, including:
 - harvesting equipment and fire risk
 - stubble and crop waste management
 - fire prevention and control strategies and equipment
 - contacting and arranging support from fire services
- weather conditions and their impact of crop harvesting and storage
- legislation, regulations and industry standards relating to health, safety, contractor engagement, crop treatments, biosecurity and harvesting plant use
- environmental controls and codes of practice applicable to harvesting operations
- management policies and procedures for health and safety, including:
 - licensing requirements harvesting operations
 - use of chemicals and hazardous substances
 - personal protection
 - harvesting, handling, loading, transport and storage

- working at heights and confined spaces with storage bins
- power lines and elevated equipment.

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 broadacre farm suitable for harvesting a crop or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - crop nearing maturity
 - planning and project management tools
 - safety equipment
 - crop sampling and assessment equipment and procedures
- specifications:
 - workplace policies, procedures and processes
 - legislation and codes of practice relevant to crop quality, and storage
- relationships:
 - work team and contractors.

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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