



Australian Government

Department of Education, Employment and Workplace Relations

AHCBAC506A Manage the harvest of crops

Release: 1

AHCBA506A Manage the harvest of crops

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of planning for and implementing the harvest of agricultural and horticultural crops and defines the standard required to: estimate crop yield and value and monitor for harvest readiness; plan for the resources that will be required for harvest; negotiate insurance and equipment supply contracts; develop risk management procedures for Occupational Health and Safety (OHS), climate and fire risk; organise for the logistics of the harvesting operation including harvesting, storage and delivery; keep grain batches separate and monitor for pests or spoilage.
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Application of the Unit

Application of the unit	This unit applies to managing the harvest and is likely to be undertaken without supervision, with only general guidance on progress sought from others.
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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. Determine crop quality	1.1. The potential crop yield is assessed by measurements made in the field. 1.2. The potential quality of the crop is assessed by testing the quality parameters before harvest. 1.3. The value of each crop is estimated using the measurements taken and assessments made before harvest.
2. Determine crop readiness	2.1. Pre-harvest samples are sent to the laboratory/marketing agent to determine the potential quality of the crop. 2.2. Weather patterns are monitored to assist in estimating the rate of ripening. 2.3. The crop maturity is monitored to anticipate when the crop will be at its optimum, and thus when the harvest will begin. 2.4. The incidence of pests is assessed to determine the requirement for, and the type of, pre-harvest treatment. 2.5. Pre-harvest treatments are selected to ensure that the crop meets market requirements. 2.6. All OHS and environmental requirements are adhered to throughout the application of pre-harvest treatments.
3. Assess the need for insurance	3.1. If the crop is estimated to be of sufficient value, and where commitments were made to insure the crop, these commitments are honoured. 3.2. Strategies to manage financial risk are analysed and assessed, and implemented where they are found to be appropriate
4. Plan harvest strategy	4.1. The commencement date and the time span for harvest are estimated, so that the crop will be maintained in optimum condition. 4.2. The equipment and labour resources required for harvest are calculated from the size of the crop and the time limitations on the harvest. 4.3. The equipment and labour resources required are analysed against those available within the enterprise, and the amount of labour and equipment to be contracted is determined. 4.4. Any equipment preparation that is required prior to harvest is planned for, in order that it is ready at the appropriate time.

ELEMENT	PERFORMANCE CRITERIA
	4.5. Where pre-harvest pest control treatments are to be applied, these are planned for according to the recommendations of the manufacturer and the legislative requirements. 4.6. Any requirements for licenses, permits and notifications are determined, and arrangements are made for these requirements to be met. 4.7. The order in which the harvest is to occur is determined, planned, and described in the plan.
5. Plan for OHS hazard management	5.1. All people involved in harvesting are made aware of the OHS hazards that may be present, their responsibilities for action, and the systems that are in place to deal with such hazards. 5.2. Suitable controls are put in place to minimise or eliminate the OHS hazards, and so reduce risks. 5.3. At each stage of the harvesting process, OHS hazards are monitored, identified and the associated risks are assessed.
6. Plan for fire prevention and control	6.1. The property is evaluated and the fire risks and hazards are identified where appropriate. 6.2. A fire prevention and control strategy that addresses the identified risks and hazards, and includes the measures to be taken, is prepared where appropriate. 6.3. The fire prevention and control strategy, and the specific measures to be taken are assessed to ensure that they meet legislative requirements where appropriate. 6.4. Fire breaks are prepared in the manner, and locations identified in the strategy, where appropriate. 6.5. Arrangements are made to ensure that firefighting equipment that is serviceable and meets appropriate fire authority standards and/or guidelines is available in the quantities prescribed by the strategy, where appropriate. 6.6. Community fire control practices are understood and put in place where appropriate.
7. Decide on storage and delivery requirements	7.1. Storage facilities for the crop are allocated and arrangements are made for the immediate delivery of the crop to packing sheds, the bulk handling system, or other purchasers. 7.2. Silos, storage bins and other containers are located to enable harvesting and transport operations to be as

ELEMENT	PERFORMANCE CRITERIA
	efficient as possible. 7.3. Any OHS hazards presented by silo operation are identified and practices put in place to reduce risk to the health of operators. 7.4. Storage is planned in such a way that it enables flexible marketing and distribution initiatives 7.5. Resources required for crop transport are evaluated, and where contractors are required, they are engaged. 7.6. Where crops are to be dried, the strategies and resources for doing so are identified, ensuring safe working practices are enabled at all times.
8. Implement the harvest strategy	8.1. Where the weather patterns permit, pre-harvest pest control treatments are applied in the manner, and at the time, scheduled in the harvesting plan. 8.2. All OHS and environmental requirements are adhered to throughout the application of pre-harvest treatments. 8.3. All labour and equipment that is required for the harvest is organised to be ready and available at the scheduled place and time. 8.4. The harvest is begun at the scheduled time when the crop will be at its optimum. 8.5. All OHS practices are monitored throughout the harvest to ensure that staff and contractors work safely at all times. 8.6. The order of the harvest described in the harvesting plan is followed. 8.7. Harvesting operations are monitored regularly and adjusted to allow for weather, contracting and equipment maintenance needs. 8.8. Truck, tractor and harvester operators are instructed on procedures to deliver each crop load at maximum quality.
9. Segregate crop for quality	9.1. As the crop is harvested, it is monitored for quality and assessed against the quality expectations in the harvesting plan. 9.2. The quality of the crop is assessed throughout the harvest and segregated into the various marketing grades. 9.3. Each grade is located and stored in the appropriate place as determined by the harvesting plan.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- plan and implement harvesting operations, including amendment of these during the operation itself
- organise and schedule the maintenance of plant and equipment
- establish processes/strategies, procedures and controls for crop harvesting
- interpret, analyse and extract information from a range of sources and discussions
- assess potential yields
- negotiate and arrange contracts and agreements
- explain, and deliver instructions about the plans and scheduling of the harvest operations to both staff and contractors, as well as suppliers, customers, and neighbours
- observe, identify and react appropriately to environmental implications and OHS hazards
- use literacy skills to fulfil job roles as required by the organisation. The level of skill may range from reading and understanding documentation to completion of written reports
- 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 numeracy skills to estimate, calculate and record complex workplace measures
- 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

- capability and use of harvesting equipment
- crop measurement techniques and parameters
- market information and sources
- location and relative skills and abilities of available contractors
- contracting requirements for crop insurance
- management of the moisture content of crops, including drying and aeration
- storage options and local storage availability
- bushfire prevention and control legislation
- bushfire prevention and control strategies and equipment
- contact details for local fire services
- weather conditions which may affect the harvest

REQUIRED SKILLS AND KNOWLEDGE

- relevant legislation and regulations relating to OHS, contractor engagement, chemical use and application, and vehicle and plant use
- environmental controls and codes of practice applicable to the business and to the harvesting operations
- sound management practices and processes to minimise noise, odours, and debris from the harvesting operations.

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	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: • estimate crop yield and value and monitor for harvest readiness • plan for the resources that will be required for harvest • negotiate insurance and equipment supply contracts • develop risk management procedures for OHS, climate and fire risk • organise for the logistics of the harvesting operation including harvesting, storage and delivery • keep grain batches separate and monitor for pests or spoilage.
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.	
Crops may include:	• all horticultural crops • all agricultural crops.
Horticultural crops may include:	• all fruit • vegetables • herbs • flowers

RANGE STATEMENT	
	• foliage • bulbs • tubers • nuts • fungi • wild harvest plants • oils • olives • grains • seeds • hops • other specialised crops not specifically named as broadacre crops.
Agricultural crops may include:	• canola • wheat • hay • barley • oats • rice • triticale • maize • millet • chickpeas • cotton • faba beans • lucerne • lupins • pigeon peas • sorghum • soybean • sunflower • other crops grown as part of a broadacre mixed farming enterprise not specifically named as horticultural crops.

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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