



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **AHCBAC501A Manage agricultural crop production**

**Release: 1**

## AHC501A Manage agricultural crop production

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	This unit covers managing agricultural crop production and defines the standard required to: develop a cropping program for an enterprise; plan for crop establishment; monitor growing crops; provide inputs and carry out cultural practices as required; develop a plan for the crop harvest; monitor crop yields and evaluate production performance.
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### Application of the Unit

<b>Application of the unit</b>	This unit applies to those whose job role includes managing the production of agricultural crop.
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### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Not Applicable

## Elements and Performance Criteria

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>

ELEMENT	PERFORMANCE CRITERIA
1. Develop agricultural crop establishment program	<p>1.1. Production targets for each crop type are established, consistent with marketing and enterprise objectives.</p> <p>1.2. Plant varieties are selected that are best suited to soil, climate, seasonal conditions and marketing goals.</p> <p>1.3. Irrigation schedules, where required, are determined for each soil and crop type based on assessed water requirements, rainfall and evapo-transpiration data.</p> <p>1.4. Nutrient requirements for crops are assessed to determine appropriate fertiliser program.</p> <p>1.5. Budgetary constraints are identified and maintained according to enterprise requirements.</p> <p>1.6. A crop establishment program is developed to meet the production targets and enterprise objectives specified in the crop production plan.</p>
2. Manage crop maintenance	<p>2.1. Strategic grazing may be planned to reduce or eradicate areas of weed infestation.</p> <p>2.2. Fertiliser applications and rates are determined appropriate to crop type and applied accordingly.</p> <p>2.3. Crop nutrient requirements are determined to ensure sustainability and achievement of yield.</p> <p>2.4. Soil moisture is monitored and watering schedule adjusted if appropriate.</p> <p>2.5. Processes to minimise waste and soil degradation are introduced and implemented according to environmental procedures.</p>
3. Monitor an agricultural crop through to harvest	<p>3.1. Longer term trends in weed, pest and disease incidence are determined, and any necessary changes to control measures are implemented.</p> <p>3.2. Soil structure and erosion are monitored and necessary changes to cultural practices, grazing management and drainage are determined.</p> <p>3.3. Irrigation and drainage systems are checked regularly and maintained if appropriate.</p> <p>3.4. Grazing management is monitored to ensure crop production levels.</p> <p>3.5. Crop maturity is monitored and harvesting is undertaken to meet marketing and production targets.</p>
4. Record production level and review cropping strategies	<p>4.1. Crop yields are monitored and evaluated against forecast production levels.</p> <p>4.2. Grazing and cropping programs are evaluated for</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>efficiency and effectiveness, and documented for future best practice.</p> <p>4.3. Evaluation of production performance is undertaken and documented for use in reviewing and revising management program.</p> <p>4.4. Physical and financial records of production are maintained for analysis and evaluation of production performance.</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

- apply environmental protection strategies in land use
- set objectives and milestones for a cropping program
- determine soil quality and land use capability
- determine crop nutrient requirements and fertiliser requirements
- measure and assess quantities of fertiliser to meet plant requirements
- predict patterns of weed infestation
- design irrigation processes to avoid soil degradation if applicable
- assess financial strategies and prepare budgets
- 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

- land and soil conditions
- effects of soil characteristics on nutrient availability
- financial analysis techniques
- environmental protection strategies

**REQUIRED SKILLS AND KNOWLEDGE**

- cultivation requirements for different types of crop
- safe handling processes for fertilisers
- infestation patterns for different types of weed
- integrated strategies for the management of pests, weeds and diseases
- Occupational Health and Safety (OHS) legislative requirements
- environmental legislation and codes of practice, relating to farm production.

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
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.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<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"> <li>• develop a cropping program for an enterprise</li> <li>• plan for crop establishment</li> <li>• monitor growing crops, provide inputs and carry out cultural practices as required</li> <li>• develop a plan for the crop harvest</li> <li>• monitor crop yields and evaluate production performance.</li> </ul>
<b>Context of and specific resources for assessment</b>	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

<b>RANGE STATEMENT</b>	
The range statement relates to the unit of competency as a whole.	
Agricultural crops include:	<ul style="list-style-type: none"> <li>• wheat and coarse grains</li> <li>• cotton</li> <li>• grain legumes</li> <li>• oilseeds</li> <li>• sugar</li> <li>• temperate and tropical pastures.</li> </ul>

## Unit Sector(s)

<b>Unit sector</b>	Broadacre cropping
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## Co-requisite units

<b>Co-requisite units</b>		

## Competency field

<b>Competency field</b>	
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