



Australian Government

Department of Education, Employment and Workplace Relations

AHCBAC503A Manage integrated crop and pasture production

Release: 1

AHC503A Manage integrated crop and pasture production

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit covers managing integrated crop and pasture production and defines the standard required to: develop a pasture and crop program to meet production targets and enterprise objectives; maintain the productivity of crops and pastures in a farming system; monitor soil structure and erosion and make required changes to cultural practices and grazing management; implement grazing strategies to optimise pasture and livestock production levels and support the cropping program; evaluate grazing and cropping programs for efficiency and effectiveness; and use physical and financial records of production to evaluate production performance.</p>
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Application of the Unit

Application of the unit	<p>This unit applies to farm managers whose job function includes managing integrated crop and pasture production.</p>
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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

ELEMENT	PERFORMANCE CRITERIA
1. Develop a pasture and crop program	<p>1.1. Production targets for each crop and pasture 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/pasture type based on assessed water requirements, rainfall and evapo-transpiration data.</p> <p>1.4. Nutrient requirements for crops and pastures 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 pasture and crop program is developed to meet production targets and enterprise objectives.</p>
2. Implement pasture and crop management program	<p>2.1. Pasture and crop program is implemented and pasture capacity is monitored according to enterprise requirements.</p> <p>2.2. Strategic grazing is carried out, where necessary, to reduce or eradicate areas of weed infestation, where planned.</p> <p>2.3. Fertiliser applications and rates are determined appropriate to crop/pasture type and applied accordingly.</p> <p>2.4. Crop and pasture nutrient requirements are applied to ensure achievement of yield and sustainability of pasture.</p> <p>2.5. Soil moisture is monitored and watering scheduled adjusted as required.</p> <p>2.6. Processes to minimise waste and soil degradation are introduced and implemented according to environmental standards.</p>
3. Monitor crop/pasture growth and fodder production	<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 high</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>pasture and livestock production levels.</p> <p>3.5. Livestock are integrated into the cropping cycle through grazing of pastures returning to crop, stubbles and crop residues, and dual purpose crops.</p> <p>3.6. Feed surpluses and deficiencies are identified and appropriate action taken according to enterprise requirements.</p> <p>3.7. Crop/pasture maturity is monitored and harvesting is undertaken to meet marketing and production targets.</p>
4. Review production level	<p>4.1. Pasture and crop yields are monitored and evaluated against forecast production levels.</p> <p>4.2. Grazing and cropping programs are evaluated for efficiency and effectiveness, and documented for future best practice.</p> <p>4.3. Evaluation of production performance of each enterprise 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

- measure and assess quantities of fertiliser
- apply environmental protection strategies in land use
- set objectives and milestones
- determine soil quality and land use capability
- predict patterns of weed infestation
- design irrigation processes to avoid soil degradation
- 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

REQUIRED SKILLS AND KNOWLEDGE

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 nutrients of soil types
- financial analysis techniques
- environmental protection strategies
- cultivation requirements for different types of crop
- safe handling processes for fertilisers
- infestation patterns for different types of weed
- OHS and environmental legislation codes of practice and enterprise procedures.

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"> • develop a pasture and crop program to meet production targets and enterprise objectives • maintain the productivity of crops and pastures in a farming system • monitor soil structure and erosion and make required changes to cultural practices and grazing management • implement grazing strategies to optimise pasture and livestock production levels and support the cropping program • evaluate grazing and cropping programs for efficiency and effectiveness • use physical and financial records of production to evaluate production performance.
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.	
Pastures may include:	<ul style="list-style-type: none"> • all unimproved and improved rangelands used for grazing • temperate and tropical pastures

RANGE STATEMENT	
	<ul style="list-style-type: none"> • crop stubble • shrubs and trees • residues that may be used for stock feed.
Crops may include:	<ul style="list-style-type: none"> • agricultural broadacre crops, including wheat and coarse grains • grain legumes • oilseeds • sugar • temperate and tropical pastures • intensive fruit and vegetable crops • field and tree crops • vines • hay 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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