



Australian Government

Department of Education, Employment and Workplace Relations

AHCBAC507A Develop production plans for crops

Release: 1

AHCBA507A Develop production plans for crops

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of developing production plans for agricultural and horticultural crops and defines the standard required to: prepare budgets and gross margins; source and interpret relevant benchmark information from consultants or peers; sample soils and plant tissue for testing; select crop species and variety and determine yield potential for crop; prepare individual paddock plans and a whole farm cropping plan.
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Application of the Unit

Application of the unit	This unit applies to production managers is likely to be undertaken without supervision, with only technical advice sought from others. It requires knowledge of determinants of crop types and yields, market prices, gross margins, cash flow budgets and disease and pest management for relevant crops.
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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. Select crop species and variety	1.1.Crop types and varieties are assessed and selected for their market potential and gross margin returns for the farm environment. 1.2.Most profitable cultural practices and rotations are selected consistent with disease and pest management strategies, available machinery resources, and management for sustainability of resources. 1.3.Production risks are identified for each crop and strategies to address these are determined. 1.4.Environmental risks are identified and strategies developed as appropriate.
2. Establish yield potential and quality specification for crop	2.1.Relevant benchmark yields are sourced, where available, to assist setting target yields. 2.2.Past production records are analysed to determine the key determinants of yield. 2.3.Available models for calculating water use efficiency or other key determinants of yield are used, as appropriate, to assist in setting target yields. 2.4.Quality specifications and target yields are established for all crops.
3. Prepare crop program	3.1.Proposed crop land areas are assessed for their nutrient, pest and disease status, water reserves, tillage requirements, and other factors before selecting crop variety. 3.2.Records of chemical use are used, as appropriate, to assist planning to reduce chemical resistance. 3.3.Crop variety is selected and paddock preparation, planting, fertilising and other treatments are planned. 3.4.Optimum timing of planting, applications and treatments is determined and a calendar of operations is prepared. 3.5.Cash flow budget for the cropping program is determined.
4. Review production plan	4.1.Logistical arrangements related to harvesting/transportation/marketing and other key operations are planned for the production cycle. 4.2.Machinery and equipment requirements are planned and checked for the crop production cycle. 4.3.Labour requirements are identified and planned for the crop production cycle. 4.4.Seed, fertiliser, pest and disease treatments and other

ELEMENT	PERFORMANCE CRITERIA
	input requirements are identified. 4.5. Physical and financial record keeping system is established to provide data for the analysis of crop performance, and to meet other statutory requirements including records of chemical use. 4.6. Production plan is reviewed, amended where required and documented as a final plan.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- prepare budgets and gross margins
- source and interpret relevant benchmark information from consultants or peers
- sample soils and plant tissue for testing
- manage and monitor crop diaries and associated records
- select crop species and variety
- source and interpret relevant benchmark information
- determine yield potential for crop
- prepare crop programs
- review, amend and document the production plan
- 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

- determinants of crop yield
- cultural practices related to cropping
- market prices, gross margins, cash flow budgets
- benchmark performance indicators

REQUIRED SKILLS AND KNOWLEDGE

- disease and pest management for relevant crops
- machinery and equipment requirements for cropping
- record keeping systems (computer or non-computer).

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: • prepare budgets and gross margins • source and interpret relevant benchmark • information from consultants or peers • sample soils and plant tissue for testing • select crop species and variety and determine yield potential for crop • prepare individual paddock plans and a whole farm cropping plan.
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 • foliage • bulbs

RANGE STATEMENT	
	• tubers • nuts • fungi • wild harvest plants • oils • olives • grains • seeds • hops • other specialised crops not specifically named as broadacre crops.
Agricultural crops	• 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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