



Australian Government

Department of Education, Employment and Workplace Relations

AHCBAC306A Establish agricultural crops

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of establishing agricultural crops and defines the standard required to: prepare and service machinery and equipment; carry out tillage and apply pre-planting treatments; carry out sowing operation and fertiliser application; monitoring the environmental impacts of establishing the crop; clean, secure and store machinery and equipment; and keep records of the sowing operation.
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Application of the Unit

Application of the unit	This unit applies to workers on cropping enterprises and involves the application of some judgement and discretion. Work is likely to be carried out under minimal supervision within enterprise guidelines.
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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. Prepare machinery and equipment for use	1.1. Machinery and equipment are selected and confirmed against the work plan and prepared to manufacturer specifications. 1.2. Equipment is securely attached and calibrated for operation to manufacturer specifications. 1.3. Existing and potential Occupational Health and Safety (OHS) hazards in the workplace are identified, risks assessed and controlled in line with enterprise requirements.
2. Prepare for agricultural crop establishment	2.1. Soil and weather conditions are monitored for optimal seeding conditions. 2.2. Soil conservation and sustainable land management practices and procedures are recognised and confirmed according to enterprise requirements. 2.3. Seeding, fertiliser, and pest and weed control requirements are confirmed against the work plan and prepared to manufacturer specifications using safe handling procedures. 2.4. Contingency plans are prepared for unusual seasonal conditions.
3. Sow the crop	3.1. Suitable personal protective equipment (PPE) is selected, used and maintained according to OHS requirements. 3.2. Seeding and fertiliser applications are carried out in line with the work plan. 3.3. Pest and weed control treatment is coordinated with seeding and fertiliser applications as required. 3.4. Environmental implications associated with sowing operations are identified, impacts assessed and procedures adopted in line with enterprise requirements.
4. Complete seeding operations	4.1. Seeding, machinery and equipment operation records are maintained according to enterprise requirements. 4.2. Machinery and equipment damage, malfunctions or irregular performance are reported in line with enterprise requirements. 4.3. Machinery and equipment is cleaned, secured and stored in line with manufacturer specifications and enterprise requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- identify hazards and implement safe operating procedures
- sow seed and apply fertiliser at the required placement and rate
- identify types of weeds and insects harmful to crop establishment
- perform pre-operational and safety checks, servicing and maintenance on machinery and equipment
- calibrate, operate machinery and attach/detach equipment
- demonstrate emergency operating procedures in normal and adverse conditions
- recognise and report machinery damage, faults or malfunctions and perform minor repairs
- demonstrate safe, environmentally responsible and sustainable land management practices
- monitor and minimise impacts to the environment associated with sowing operations
- read and interpret manufacturer specifications, work and maintenance plans, and MSDS
- obtain relevant licences and permits
- clean, secure and store machinery and equipment
- interpret and apply task instructions
- communicate with work team and supervisor
- record and report equipment faults, workplace hazards and accidents
- assess and calculate the application of fertiliser/pesticide requirements and application rates
- calibrate equipment and calculate volumes, consumption and servicing requirements
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- crop types, preparation of seeds, seeding methods and application techniques
- fertiliser types, rates of application and crop nutrient requirements
- effects of weather conditions (normal and adverse) on seeding and fertilising applications
- operating principles and operating methods for machinery and equipment
- pre-operational and safety checks, servicing and maintenance procedures for seeding machinery and equipment
- principles of weight distribution with regard to load shifting and vehicle movement

REQUIRED SKILLS AND KNOWLEDGE

- sustainable land management and soil conservation techniques
- positive environmental practices, negative environmental impacts and minimisation measures associated with seeding operations
- procedures for cleaning, securing and storing machinery, equipment and materials
- enterprise policies with regard to seeding operations, and recording and reporting routines
- relevant state/territory legislation, regulations and codes of practice with regard to workplace OHS and the use and control of hazardous substances
- PPE and when and how it should be used
- relevant state/territory legislation and regulations with regard to licensing requirements and the use and control of machinery and equipment.

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 and service machinery and equipment
- carry out tillage and apply pre-planting treatments
- carry out sowing operation and fertiliser application
- monitoring the environmental impacts of establishing the crop
- clean, secure and store machinery and equipment
- keep records of the sowing operation.

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:

- wheat and coarse grains
- cotton
- grain legumes
- oilseeds
- sugar
- temperate pastures
- tropical pastures.

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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