



Australian Government

AHCBAC315 Establish agricultural crops

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 7.0.

Application

This unit of competency describes the skills and knowledge required to prepare and safely operate equipment and sow/plant an agricultural crop following specifications in a crop production plan.

The unit applies to individuals who work under broad direction and take responsibility for own work including limited responsibility for the work of others. They use discretion and judgement in the selection and use of available resources and complete routine activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Broad Acre Cropping (BAC)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for agricultural crop establishment	1.1 Confirm crop establishment requirements with crop production plan 1.2 Ensure soil and weather conditions are within planned sowing/planting parameters 1.3 Confirm soil test results and identified soil amendment requirements 1.4 Confirm pests, weeds and disease treatments specified in crop

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	production plan 1.5 Identify implication of sowing/planting operations on environment, assess risk and implement controls according to workplace environmental procedures 1.6 Confirm personal protective equipment (PPE) required and utilise 1.7 Prepare and implement contingency plans for unsuitable weather conditions
2. Prepare machinery and equipment or technology and sow/plant crop	2.1 Prepare machinery and equipment or technology according to crop production plan and biosecurity procedures 2.2 Attach and calibrate equipment according to crop production specifications and operator instructions 2.3 Identify work health and safety hazards, assess risk and implement controls according to workplace procedures 2.4 Operate seeding/planting machinery efficiently according to crop production plan
3. Complete seeding operations	3.1 Maintain seeding/planting records according to workplace procedures 3.2 Clean, check, and store machinery and equipment or technology according to manufacturer specifications, biosecurity and workplace procedures 3.3 Report machinery and equipment or technology faults according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	- Interpret plans and strategies for crop establishment - Interpret manufacturer specifications, work and maintenance plans, and safety data
Numeracy	Calculate rates of application of seed, treatments and fertilisers,

Skill	Description
	and calibrate equipment and machinery to deliver specified rates

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBAC315 Establish agricultural crops	AHCBAC306 Establish agricultural crops	Edited Application for clarity Amalgamation, editing and changes to sequencing of Elements and Performance Criteria Foundation Skills refined Performance Evidence and Knowledge Evidence clarified and terminology updated Amended structure of Assessment Conditions	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCBC315 Establish agricultural crops

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has established at least two agricultural crops and has:

- confirmed crop establishment requirements with crop production plan
- identified health and safety hazards, assessed the risk and implemented controls
- sown seed and applied soil fertilisers/treatments at the required placement and rate
- coordinated weeds, pest and disease controls with sowing, including:
 - identified types of weeds, pests and diseases harmful to crop establishment
 - selected and applied controls
- prepared and safely operated machinery and equipment or technology, including:
 - performed pre-operational and safety checks
 - maintained machinery and equipment
 - calibrated according to planned outcomes
 - attached and detached supplementary equipment
 - recognised and reported machinery faults and perform minor repairs
 - cleaned, secured and stored machinery and equipment
 - selected and used personal protective equipment (PPE)
- maintained accurate records for the following:
 - equipment or technology faults and servicing
 - workplace hazards and incidents
 - crop establishment operations
- used equipment or technology safely and efficiently to perform the following operations:
 - applied soil remediation
 - applied pre-planting treatments
 - sowed/planted the crop
 - applied fertilisers/soil amendments

- monitored environmental impact of establishing crop
- prepared and implemented contingency plans for unsuitable weather conditions
- followed workplace health and safety, environmental and biosecurity procedures.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- crop types, preparation of seeds, seeding methods and application techniques
- fertiliser types, rates of application and crop nutrient requirements
- effects of weather conditions both normal and adverse, on seeding and fertilising applications
- operating principles and operating methods for machinery and equipment, including:
 - 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
 - adverse weather conditions and machinery operation
- sustainable land management and soil conservation techniques, including:
 - stubble management
 - minimum till
 - no-till
- principles of precision agriculture and the role of technology in improving efficiencies, including:
 - self-drive, auto steer, global navigation satellite systems (GNSS) and laser technologies
 - digital and remote sensors
 - remote piloted systems
 - controlled traffic farming (CTF) principles and impacts
 - variable rate technology (VRT)
 - integrated pest and weed management techniques
- procedures for cleaning, securing and storing machinery, equipment and materials
- workplace policies regarding seeding/planting operations, and recording and reporting routines
- workplace health and safety policies and procedures including:
 - use chemicals and fertilizers
 - personal protective equipment (PPE) and when and how it should be used
 - relevant state/territory legislation and regulations
 - farm fire safety with dried crops, stubble and accumulation in equipment
 - power lines and elevated equipment safety
- licensing requirements and the use and control of machinery and equipment on public land
- workplace biosecurity and environmental policies.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated on a broadacre farm or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - seeds, fertilisers and treatments
 - tools, equipment and machinery for preparing and sowing crops
 - personal protective equipment (PPE)
- specifications:
 - workplace policies, procedures, processes
 - safety data sheets for fertilisers and treatments
 - manufacturer specifications
 - workplace plans and specifications
- relationships:
 - supervisor
- timeframes:
 - according to specified timeframes and efficiencies.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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