Modification history

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0.

AHCBAC305	Undertake preparation of land for agricultural crop production	
Application	This unit of competency describes the skills and knowledge required to select materials and equipment from planting plans and cultivate the land, including fertilisers and other treatments for agricultural crop production.	
	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.	
Prerequisite Unit	Nil	
Unit Sector	Broad Acre Cropping (BAC)	

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
Prepare for cultivation	1.1 Confirm work requirements in planting plan with supervisor 1.2 Confirm the identified method and order of work from the planting plan with supervisor 1.3 Identify work health and safety hazards, assess risk and implement controls according to workplace health and safety procedures 1.4 Select, check, use and maintain personal protective equipment
2. Prepare the cultivating equipment	2.1 Select vehicles, equipment and machinery required for site cultivation according to planting plan 2.2 Inspect vehicles, equipment and machinery for operational use and report faults to supervisor for repair 2.3 Clean vehicles, equipment and machinery according to workplace biosecurity and hygiene procedures 2.4 Adjust performance settings on equipment and machinery according operator instructions and planting plan specifications 2.5 Record maintenance and servicing activity according to workplace record keeping procedures
3. Cultivate soil	3.1 Verify timelines, resources and quality standards specified in the planting plan 3.2 Clear site of debris and manage according to planting plan, biosecurity and environmental procedures 3.3 Operate vehicles, equipment safely according to operator instructions and planting plan specifications 3.4 Cultivate soil using time and resources efficiently 3.5 Monitor vehicle and equipment performance and make adjustments for discrepancies
4. Prepare site for planting	4.1 Layout site for crop and soil profile to planting plan specifications 4.2 Implement weed and pest control measures identified in the planting plan 4.3 Apply fertilisers, ameliorants, or pre-planting treatments according to planting plan 4.4 Identify potential implications of site preparations on environment and take action according supervisor instructions and workplace environmental procedures

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Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
5 Complete land preparation operations	5.1 Clean and store vehicles, equipment and machinery according to workplace biosecurity and hygiene procedures 5.2 Dispose of waste according to workplace environmental procedures 5.3 Maintain records and documentation according to workplace procedures

Foundation Skills		
	language, literacy, numeracy and employment skills that are essential for mpetency but are not explicit in the performance criteria.	
Skill	Description	
Reading	Interpret manufacturer specifications, work and maintenance plans, Safety Data Sheets (SDS) and crop standards	
Writing	 Complete records and documents relevant to crop production and site preparation 	
Numeracy	 Calculate areas, volumes and ratios relevant to the preparation of site and for incorporation of fertilisers, ameliorants and treatments 	

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
AHCBAC305 Undertake preparation of land for agricultural crop production Release 2	AHCBAC305 Undertake preparation of land for agricultural crop production Release 1	Changes to Application. Consolidated and re sequenced Performance Criteria. Added Foundation Skills. Updated Performance Evidence, Knowledge Evidence and 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

TITLE	Assessment requirements for AHCBAC305 Undertake
	preparation of land for agricultural crop production

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 prepared land for at least two different agricultural crops and has:

- interpreted and implemented crop production activities according to plans, specifications, crop quality standards and work procedures
- · conducted accurate measurements for materials and site dimensions
- adjusted, calibrated and maintained cultivation equipment
- · conducted pre- and post-operational checks on tools, vehicles and equipment
- used tools, machinery and equipment safely incorporating technology to improve efficiency during land preparation.
- followed workplace health and safety, biosecurity and environmental procedures and practices

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:

- principles of soils preparation and effect on crop establishment including expected standards for different crop types
- · soil types and impact and methods for cultivation
- · environmental issues of cultivating soil for planting, including:
 - · drainage and irrigation systems
 - soil amelioration
 - · waste disposal procedures
 - disposal or incorporation of old crops
 - · land clearing
- controlled traffic farming (CTF) principles and use of traffic lanes and impact on soil compaction, water availability, infiltration, plant growth and potential crop yield
- a range of pre-planting treatments, their purpose and method of application
- operation and maintenance of planting equipment
- role of technology for improving efficiencies including:
 - self-drive
 - · global positioning systems (GPS)
 - laser technologies
- work health and safety procedures and principles, including:
 - manual handling
 - exposure to hazardous substances
 - working safely around farm machinery
 - fire risk and control strategies
- enterprise 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 farm or an environment that accurately represents workplace conditions

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- resources, equipment and materials:
 - use of site preparation tools, machinery and equipment
 - use of fertilisers, ameliorants and treatments
 - use of personal protective equipment
- specifications:
 - use of workplace policies and procedures
 - use of manufacturer operating instructions for tools, equipment and machinery
 - use of workplace plans and specifications

Skills Impact Unit of Competency

Template modified on 15 May 2020

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Assessment Conditions

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

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