Modification history

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| Release | Comments |
| Release 2 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version X.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0. |

| AHCBAC307 | Maintain agricultural crops |
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| Application | This unit of competency describes the skills and knowledge required to monitor and assess broadacre crop health and condition and implement crop maintenance procedures.  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 |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Monitor & assess agricultural crop condition, growth and requirements | 1.1 Monitor crop health and record observations according to crop production plan  1.2 Report deviation from expected growth and vigour to supervisor  1.3 Identify, monitor and report weeds, pests and diseases  1.4 Measure soil moisture and determine soil water requirements according to workplace procedures  1.5 Report observations of crop ripening to supervisor to determine the timing of harvest |
| 2. Undertake crop health operations | 2.1 Identify work health and safety hazards, assess risk and implement controls according to workplace procedures  2.2 Select, check, use and maintain personal protective equipment  2.3 Apply specialist treatments at each growth stage according to label instructions and advice  2.4 Conduct chipping or spot spraying of declared weed infestation where specified in crop management plan  2.5 Assess, record and report crop growth stages, crop harvest indicators and milestones according to workplace procedures  2.6 Assess soil moisture and implement procedures to mitigate water stress according to crop production plan |
| 3. Complete cleaning and hygiene operations | 3.1 Clean equipment according to hygiene and biosecurity procedures  3.2 Check and maintain equipment performance according to workplace procedures  3.2 Dispose of waste according to workplace procedures and environmental polices  3.3 Maintain records and documentation 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. | |
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| Skill | Description |
| Reading | * Interpret plans and procedures for maintaining crops |
| Numeracy | * Calculate rates of application of seed, treatments and fertilisers, and calibrate equipment and machinery to deliver specified rates * Calculate soil moisture and crop water demand |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCBAC307 Maintain agricultural crops  Release 2 | AHCBAC307 Maintain agricultural crops  Release 1 | Changes to Application. Changes to sequencing and editing of Performance Criteria. Added Foundation Skills. Updated Performance Evidence, Knowledge Evidence and Assessment Conditions | Equivalent |

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| 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 AHCBAC307 Maintain 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 on at least one occasion maintained an agricultural crop from post seeding to pre harvest and has:   * detected differences and variations in crop growth and reported outcomes to supervisor * observed and reported health of the crop, including: * monitored pests and diseases * assessed crop maturity * applied treatments and fertilizers according to crop production plan * measured soil moisture and assessed crop water requirements * followed enterprise health and safety, biosecurity and environmental procedures and policies. | |

| Knowledge Evidence |
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| 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:   * appropriate legislative requirements, manufacturer's instructions and organisation procedures/instructions * potential hazards associated with the operation of basic tools and equipment * general machine maintenance procedures * machinery operating principles and safe operating methods * environmental impacts associated with the operation of machinery and equipment, including controlled traffic farming (CTF) principles * role of precision agriculture and its effect on crop growth, yield and soil attributes, including: * variable rate technology (VRT) * self-drive equipment * global navigation satellite systems (GNSS) * laser technologies * soil moisture testing, assessment and crop water requirements, including types and application of irrigation systems used in broad acre farming * workplace recording and reporting procedures * health and vigour of developing crop, including: * symptoms of crop lacking health and vigour * signs of pest and disease infestation * moisture stress * nutrient deficiencies * hygiene and biosecurity requirements for agricultural crops and equipment * types and uses of herbicides, insecticides and other pesticides and alternative pest control methods (non-chemical) * role of technology in improving efficiency * workplace health and safety and pesticides legislative and policies. |

| Assessment Conditions |
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| 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: * use of tools, machinery and equipment * use of soil moisture testing probes * 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.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. |

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