Modification history

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| Release | Comments |
| Release 3 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 5.0. |
| Release 2 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 2.0. |
| Release 1 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0. |

| AHCPMG510 | Develop a pest survey strategy |
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| Application | This unit of competency describes the skills and knowledge required to develop a plant pest survey strategy to determine the presence, distribution and prevalence of pest plants, vertebrates and/or invertebrates. The work may be conducted as part of an emergency response to an incursion or as part of routine surveillance, and must be conducted in accordance with established standards and protocols.  The unit applies to individuals who undertake a role within a pest incursion response and take personal responsibility and exercise autonomy in undertaking complex work. They are accountable for the work of others within broad parameters and analyse information and exercise judgement to complete a range of advanced skilled activities.  No licensing, legislative or certification requirements are known to apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Pest Management (PMG) |

| 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. Obtain and analyse biological information for survey design | 1.1 Identify the biological and dispersal characteristics of the pest  1.2 Determine impact of climate on reproduction rates and the predicted distribution of the pest  1.3 Identify the geographical distribution of the host  1.4 Analyse information to determine priority areas to be surveyed |
| 2. Develop survey methodology | 2.1 Determine particular type of survey to be designed according to phase of incursion  2.2 Determine field data collection methodology in consultation with technical experts  2.3 Incorporate quality assurance standards that apply to survey methodology and documentation  2.4 Select diagnostic tests for use in confirming pest presence in samples  2.5 Include procedure for sustainability and biosecurity in survey plan  2.6 Develop instructions for survey teams |
| 3. Determine the resources required | 3.1 Determine and document resources required for survey activities in consultation with technical experts |
| 4. Obtain approval for the survey design | 4.1 Document survey design according to protocols and standards  4.2 Submit survey design to authorising agency for approval |
| 5. Determine post-survey review processes | 5.1 Determine review processes to evaluate implementation and effectiveness of survey program |

| 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 | * Organise, evaluate and analyse biological data, maps and charts to verify pest characteristics and dispersal. |
| Writing | * Prepare detailed procedural texts defining the requirements and purpose of pest survey strategy for stakeholders taking into account the needs of a culturally and linguistically diverse workforce |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCPMG510 Develop a pest survey strategy  Release 3 | AHCPMG510 Develop a pest survey strategy  Release 2 | Minor changes to Application and Performance Criteria  Updated Performance Evidence, Knowledge Evidence and Assessment Conditions | Equivalent unit |

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

| TITLE | Assessment requirements for AHCPMG510 Develop a pest survey strategy |
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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 on at least one occasion the individual has produced a pest survey strategy according to local, regional, State/Territory and national pest management strategies.  There must also be evidence that the individual has:   * analysed biological information for the characteristics, distribution and dispersal of pest * developed survey methodology for target pest, environment and terrain * prepared plans to workplace and authority standards * developed review processes according to workplace requirements. | |

| 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:   * biometric principles to biological survey design * biology of pests and pathogens relevant to the region * types and distribution of hosts relevant to the region * requirements for ensuring the welfare of animals described in the relevant Codes of Practice * pest biology, behaviour and lifecycles * diagnostic tests for use in confirming pest presence in samples * resources required for survey activities |

| Assessment Conditions |
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| Assessment of skills must take place under the following conditions:   * physical conditions: * skills must be demonstrated in the field for a possible pest incursion or an environment that accurately represents workplace conditions * resources, equipment and materials: * computer and software for researching pest biological information and preparing documentation * specifications: * access to specific legislation, regulations and industry codes of practice for pest managment * relationships: * stakeholders * work team   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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