



Australian Government

Assessment Requirements for AHCARB808 Contextualise diagnostic tests

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 5.0.

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 contextualised diagnostic test results for each of the following five primary domains for trees:

- anatomy
- physiology
- pathology
- dynamics
- edaphic environment.

There must also be evidence that the individual has:

- conducted a literature review of peer-reviewed research and relevant case studies
- operated diagnostic testing equipment
- interpreted underpinning scientific principles of test processes
- determined the diagnostic assumptions and limitations of the testing process for the selected diagnostic tool
- analysed quantification, variance and tolerance requirements
- investigated and verified calibration baselines for diagnostic equipment
- verified calibration processes have been performed on test equipment
- selected testing processes for each of five primary tree domains
- selected diagnostic tools and contextualised the testing process for each domain
- defined research method to be used
- conduct a literature review for current research and science of each primary domain
- established efficacy of the test for each primary domain
- conducted a diagnostic test project
- analysed test results for performance metrics of selected diagnostic tools
- interpreted results against benchmark and anticipated ranges
- confirmed predictive responses in terms of post-treatment to pre-treatment results

- articulated meaning of results within context of primary domain
- provided an informed prognosis
- researched management options and lag time
- formulated a report documenting management plans.

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:

- conducting literature reviews for peer-reviewed documentation, scientific research and case studies
- diagnostic testing processes and test equipment, and their purpose and functional operation, used for tree domains, including:
 - limitations of the testing process
 - assumptions and limitations of tools used in diagnostics
 - standardising test equipment and determining baselines and calibration
 - verifying efficacy of testing methodologies
- primary tree domains and testing regimes and diagnostics used for each, including:
 - tree anatomy
 - tree physiology
 - tree pathology
 - tree dynamics
 - the edaphic environment of trees
- developing scientific research projects and selecting a research method, including:
 - setting goals and outcomes for research
 - hypothesis testing
 - observational research
 - measurement of functional relationships
 - establishing performance metrics and normal anticipated ranges of test result
- test results; their documentation and interpretation, including:
 - diagnostic test projects and processes
 - contextual understanding of results
 - statistical analysis of results
 - prognostics
 - use of diagnostic outcomes in the development of management plans.

Assessment Conditions

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

- physical conditions:

- trees and forests or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - computer with word processing and statistical analysis software
 - diagnostic tools for selected testing
 - access to diagnostic test equipment and operating instructions
- specifications:
 - standard procedures and quality standards of performing diagnostics tests and analysis
 - reference materials, reports and scientific literature for reviews.

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

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed.

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>