Assessment Requirements for AHCARB608 Interpret diagnostic test results

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 analysed and critiqued a minimum of five different diagnostic test results.

- For each of the five tests, there must also be evidence that the individual has:
- compiled a portfolio of sample reports of diagnostic test results, including the following types of tests:
    - dynamic and static loading
    - drill resistance measurement device
    - sap flow measurements
    - electronic impedance
    - chlorophyll fluorescence
    - increment core
    - sonic tomography
    - radar imaging system
    - bulk density
    - soil and pH tests
- compiled peer reviewed papers on the use of each diagnostic tool
- reviewed diagnostic tool specifications and user manuals and researched output ranges for each diagnostic tool
- identified key thresholds and benchmarks
- determined suitability of tool selection for purpose of test
- identified and evaluated testing methods
- assessed relevance, benefits and limitations and determined assumptions of methodology
- determined veracity of the equipment, software and systems
- accessed available raw data and testing evidence and verified data relevance and accuracy
- reviewed references cited in the report and identified inconsistencies

- evaluated test results and completed the following:
  - recorded discrepancies against standards
  - assessed the suitability of diagnostic tool for purpose
  - highlighted unsupported statements and factual errors
  - detailed significant omissions, errors and ambiguities
  - detailed inconsistencies and errors of logic
  - identified variances to specifications
- assessed the suitability of the testing process as fit for purpose
- analysed test results, compared test outcomes with original interpretation and considered and accounted for anomalies
- determined validity of outcomes of original report
- developed substantiated positions for critical analysis
- determined further testing required to verify results
- compiled the analysis and reviewed completeness and accuracy of analysis
- recorded analysis outcomes and rationale and documented the analytical processes
- provided alternate analysis and conclusion and documented critique in a report
- presented report according to agreed format and within agreed timelines.

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:

- diagnostic tests and tools used in arboriculture and their purpose, including:
  - dynamic and static loading
  - drill resistance measurement device
  - sap flow measurements
  - electronic impedance
  - chlorophyll fluorescence
  - increment core
  - sonic tomography
  - radar imaging system
  - bulk density
  - soil and pH tests
- specifications of arboricultural diagnostic tools, including:
  - arboriculture terminology and language used in tree diagnostics
  - data output, interpretation and output ranges, key thresholds and benchmarks
  - diagnostic tool selection and testing methods
- developing an evidence-based critique of testing procedures and results, including:
  - reviewing and verifying cited references and data reports
  - data accuracy and relevance
  - testing diagnostic tools and methods against standards and quality assurance

- identifying non-conformances in documentation of results and reports, including:
    - unsupported statements and factual errors
    - significant omissions, errors and ambiguities
    - variances to specifications and standard procedures
    - incorrect use of arboricultural terminology
    - verification and falsification of results
- selecting and determining the suitability of diagnostics tools and testing procedures and deciding best fit for purpose
- analysing test results and use of industry benchmarks and standards.

Assessment Conditions

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

- physical conditions:
    - an arboriculture work site or environment that accurately represents workplace conditions
- resources, equipment and materials:
    - computer with word processing software and statistical analysis software
- specifications:
    - test equipment manuals, standard procedures and quality standards
    - sample reports for the diagnostic test methods listed in the performance criteria.

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