



Australian Government

AHCSDT410 Perform a seed vigour test

Release: 1

AHCSDT410 Perform a seed vigour test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test for seed vigour to provide information about planting value in a wide range of environments and/or storage potential of seed lots.

It applies to senior seed analysts who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems. All work is carried out to comply with workplace procedures.

No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Seed testing (SDT)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for a seed vigour test	1.1 Review test request to identify samples to be tested, required test methods and equipment 1.2 Clean and calibrate equipment and working space to enterprise standards
2. Receive and prepare samples	2.1 Log samples using standard operating procedures (SOPs) 2.2 Record sample description, compare with specification and report

Element	Performance criteria
	discrepancies 2.3 Prepare samples in accordance with testing method requirements 2.4 Maintain traceability of samples from receipt to reporting of results 2.5 Ensure control samples are prepared to enterprise guidelines if they are being used
3. Check equipment before use	3.1 Set up equipment and instruments in accordance with test method requirements 3.2 Perform pre-use and safety checks 3.3 Identify and report faulty or unsafe components and equipment 3.4 Check equipment calibration using specified standards and procedures 3.5 Quarantine out of calibration equipment and instruments 3.6 Ensure reagents required for the test are available and meet quality requirements
4. Conduct test	4.1 Determine the test method to be used according to the type of seed or as requested by the person requesting the test 4.2 Clean equipment and maintain in a clean state 4.3 Prepare a working sample and replicates using mixing and dividing processes 4.4 Prepare, place and/or treat seed to suit test method requirements 4.5 Measure or count and record results as determined by test method
5. Evaluate test results	5.1 Count the number of seeds or seedlings with required characteristics in each replicate 5.2 Calculate the percentage of seed or seedlings with required characteristics in each replicate and determine average percentage across all replicates 5.3 Report result of seed vigour test
6. Process and interpret data	6.1 Record test data noting atypical observations 6.2 Record and report results 6.3 Interpret trends in data or results and report out of specification or atypical results 6.4 Determine if obvious procedure or equipment problems have led to atypical data or results
7. Maintain a safe work environment	7.1 Use established safe work practices and personal protective equipment 7.2 Minimise the generation of wastes and environmental impacts 7.3 Collect laboratory and hazardous waste for subsequent disposal 7.4 Clean and maintain equipment and store equipment and reagents

Element	Performance criteria
8. Maintain laboratory records	8.1 Enter approved data into laboratory information management system 8.2 Maintain confidentiality and security of enterprise information and laboratory data 8.3 Maintain equipment and calibration logs

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCSDT410A Perform a seed vigour test.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AHCSDT410 Perform a seed vigour test

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- prepare and conduct a seed vigour test
- interpret and present results
- provide information about seeds' planting value
- provide information about the storage potential of seed lots
- record test results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- calculations, tolerances and rounding results
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- materials and apparatus used in seed vigour testing
- range of seed vigour testing procedures
- relevant health, safety and environment requirements
- role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- seed biology
- seed identification

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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