



Australian Government

AHCSDT411 Perform a 1000 seed weight test

Release: 1

AHCSDT411 Perform a 1000 seed weight test

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to determine the weight per 1000 pure seeds from a submitted sample.

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

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 a working sample	1.1 Obtain pure seed following a purity analysis or as a representative fraction of a submitted sample 1.2 Use mechanical dividers where appropriate 1.3 Maintain moisture content of working sample before counting through storing it in moisture-proof containers 1.4 Complete labelling and records
2. Count and weigh seed	2.1 Put the entire working sample through a counting machine and

Element	Performance criteria
by machine	record the total number of seeds indicated 2.2 Weigh working sample to the required number of decimal places
3. Count and weigh replicates by hand	3.1 Count out eight replicates of 100 seeds randomly from the working sample 3.2 Weigh each replicate to the required number of decimal places 3.3 Record weights of each replicate 3.4 Calculate variance, standard deviation and coefficient of variance 3.5 Test a new set of replicates where the coefficient of variance exceeds the prescribed value 3.6 Determine the average weight of 1000 seeds where the coefficient of variance does not exceed the prescribed value
4. Report results	4.1 Report results of weight determination under “other determinations” to the prescribed number of decimal places 4.2 Report the method used and the results calculated

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 AHCSDT411A Perform a 1000 seed weight 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 AHCSDT411 Perform a 1000 seed weight 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:

- calculate variance, standard deviation and coefficient of variance
- determine the weight per 1000 pure seeds from a submitted sample
- prepare and weigh replicates
- report results

Knowledge Evidence

The candidate must demonstrate knowledge of:

- apparatus for weighing, counting and dividing seed samples
- calculations such as variance, standard deviation and coefficient of variance
- concepts of metrology
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements
- role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- seed biology

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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