



**Australian Government**

# **AHCSDT308 Perform tests for quality on seeds**

**Release: 1**

# AHCSDT308 Perform tests for quality on seeds

## Modification History

| Release   | Comments                                                                                                                    |
|-----------|-----------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 7.0. |

## Application

This unit of competency describes the skills and knowledge required to perform tests on seeds and grain to determine quality. Tests are performed under laboratory conditions in accordance with industry standards.

The unit applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

Seed to be processed for Certification must be sampled by an Authorised Sampler in accordance with International, Federal and State seed certification regulations.

## Pre-requisite Unit

Nil

## Unit Sector

Seed Testing (SDT)

## Elements and Performance Criteria

| Elements                                                      | Performance Criteria                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>              | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                         |
| 1. Prepare seed for testing and maintain condition and purity | 1.1 Identify purpose of seed tests from work instructions<br>1.2 Verify authenticity of seed from submitted sample documentation<br>1.3 Verify submitted seed sample complies with condition specified for seed test and report inconsistencies to supervisor<br>1.4 Prepare working test sample/s from submitted seed sample according to workplace and laboratory procedures |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                                  | <p>1.5 Store and maintain condition and quality of seed samples for testing according to seed species, workplace procedures and industry standards</p> <p>1.6 Implement procedures to prevent contamination of submitted sample and working samples</p> <p>1.7 Label and record working samples according to workplace and industry standards for traceability</p>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 2. Prepare equipment for seed tests              | <p>2.1 Select number of replicates for seed test according to specified test procedure and work instructions</p> <p>2.2 Prepare the required number of replicates according to specific test procedures and industry standards</p> <p>2.3 Label and store replicates according to workplace procedures and industry standards</p> <p>2.4 Compile and prepare materials required according to specified seed test procedures</p> <p>2.5 Select, clean, check and calibrate test equipment according to manufacturer instructions and seed test specifications</p> <p>2.6 Report and record faults, repairs and calibration of equipment according to workplace procedures</p> <p>2.7 Identify health and safety hazards, assess risk and implement controls according to workplace procedures</p> |
| 3. Conduct seed tests                            | <p>3.1 Measure quantities of seed required for each test replicate according to test procedures</p> <p>3.2 Pre-treat or condition seed replicates ready for testing according to test procedures</p> <p>3.3 Conduct seed test according to seed test procedures and industry standards</p> <p>3.4 Maintain conditions to maintain quality and prevent contamination of replicates during testing process</p> <p>3.5 Update labelling of replicates and records according to workplace and industry standards for traceability</p>                                                                                                                                                                                                                                                                |
| 4. Examine and assess tested seed                | <p>4.1 Identify endpoint of test and prepare replicates for assessment according to testing procedures</p> <p>4.2 Examine each replicate and record observations</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                              |
|                                                  | 4.3 Assess observations against standards specified in workplace and industry procedures<br>4.4 Record observations and test results according to workplace and industry procedures                                                                                                                                 |
| 5. Prepare and report test results               | 5.1 Calculate test results according to workplace procedures and industry standards<br>5.2 Compile and document test results<br>5.3 Assess test results against standards and report results according to workplace procedures<br>5.4 Update records according to workplace and industry standards for traceability |
| 6. Finalise testing procedures                   | 6.1 Dispose of replicates and waste according to testing protocols and workplace waste and biosecurity procedures<br>6.2 Clean and store test equipment according to workplace procedures                                                                                                                           |

## 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.*

| Skill    | Description                                                                                                                                                                    |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading  | <ul style="list-style-type: none"> <li>Interpret seed testing procedures and industry standards to ensure accuracy of tests performed and integrity of test results</li> </ul> |
| Writing  | <ul style="list-style-type: none"> <li>Document test results accurately using industry recognised language and formatting</li> </ul>                                           |
| Numeracy | <ul style="list-style-type: none"> <li>Perform calculations accurately and according to industry standards for seed testing</li> </ul>                                         |

## Unit Mapping Information

| Code and title current version | Code and title previous version | Comments | Equivalence status |
|--------------------------------|---------------------------------|----------|--------------------|
|                                |                                 |          |                    |

|                                                 |                                                   |                                                                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| AHCSDT308<br>Perform tests for quality on seeds | AHCSDT303<br>Perform a fluorescence test on seeds | This unit supersedes the following units:<br><br>AHCSDT303 Perform a fluorescence test on seeds,<br>AHCSDT304 Perform a seed purity analysis,<br>AHCSDT305 Perform a seed moisture test,<br>AHCSDT306 Perform a seed germination test,<br>AHCSDT307 Perform a 'Determination of Other Seeds by Number' test | Not equivalent |
| AHCSDT308<br>Perform tests for quality on seeds | AHCSDT304<br>Perform a seed purity analysis       | This unit supersedes the following units:<br><br>AHCSDT303 Perform a fluorescence test on seeds,<br>AHCSDT304 Perform a seed purity analysis,<br>AHCSDT305 Perform a seed moisture test,<br>AHCSDT306 Perform a seed germination test,<br>AHCSDT307 Perform a 'Determination of Other Seeds by Number' test | Not equivalent |
| AHCSDT308<br>Perform tests for quality on seeds | AHCSDT305<br>Perform a seed moisture test         | This unit supersedes the following units:<br><br>AHCSDT303 Perform a fluorescence test on seeds,<br>AHCSDT304 Perform a seed purity analysis,<br>AHCSDT305 Perform a seed moisture test,<br>AHCSDT306 Perform a seed germination test,<br>AHCSDT307 Perform a 'Determination of Other Seeds by Number' test | Not equivalent |
| AHCSDT308<br>Perform tests for quality on seeds | AHCSDT306<br>Perform a seed germination test      | This unit supersedes the following units:<br><br>AHCSDT303 Perform a fluorescence test on seeds,                                                                                                                                                                                                            | Not equivalent |

|                                                 |                                                                      |                                                                                                                                                                                                                                                                                                             |                |
|-------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
|                                                 |                                                                      | AHCSDT304 Perform a seed purity analysis,<br>AHCSDT305 Perform a seed moisture test,<br>AHCSDT306 Perform a seed germination test,<br>AHCSDT307 Perform a 'Determination of Other Seeds by Number' test                                                                                                     |                |
| AHCSDT308<br>Perform tests for quality on seeds | AHCSDT307<br>Perform a 'Determination of Other Seeds by Number' test | This unit supersedes the following units:<br><br>AHCSDT303 Perform a fluorescence test on seeds,<br>AHCSDT304 Perform a seed purity analysis,<br>AHCSDT305 Perform a seed moisture test,<br>AHCSDT306 Perform a seed germination test,<br>AHCSDT307 Perform a 'Determination of Other Seeds by Number' test | Not equivalent |

## Links

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