



Australian Government

Department of Education, Employment and Workplace Relations

AHCSDT303A Perform a fluorescence test on seeds

Release 1

AHCSDT303A Perform a fluorescence test on seeds

Modification History

Release	TP Version	Comments
1	AHC10v4	Initial release

Unit Descriptor

This Unit covers undertaking a test that is designed to determine the presence of annual ryegrass species in perennial ryegrass seedlots.

Application of the Unit

This Unit applies to seed analysts working independently or under limited supervision, within enterprise guidelines. In general, they prepare samples for testing; conduct specified tests in accordance with enterprise requirements; maintain records and interpret results; and troubleshoot equipment problems.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Nil.

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

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|-------------------------------------|--|
| 1. Prepare for a fluorescence test | 1.1 Seed to be tested is identified and records completed.
1.2 Working sample is prepared from submitted sample.
1.3 The required number of replicates of 100 seeds are prepared.
1.4 Substrate is prepared with potassium nitrate.
1.5 Replicates are placed in a germination cabinet/room as directed. |
| 2. Assess germinated seeds | 2.1 All un-germinated seeds and abnormal seedlings are counted off and the number recorded.
2.2 Normal seedlings are examined under ultra violet light.
2.3 Normal seedlings that have fluorescent roots under ultra violet light are counted off and the number recorded.
2.4 Normal seedlings that do not have fluorescent roots under ultra violet light are counted off and the number recorded.
2.5 Exposure of bare skin to ultra violet light is minimised.
2.6 Enterprise worksheet is completed. |
| 3. Maintain a safe work environment | 3.1 Results of test are recorded, calculated and reported in accordance with enterprise guidelines.
3.2 Laboratory and hazardous waste are safely handled, collected and disposed of.
3.3 Apparatus and equipment used are cleaned and used chemicals and solutions are disposed of safely. |

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills include:

Ability to:

- assess seedlings under ultra violet light
- follow enterprise guidelines and standard operating procedures
- germinate seed
- prepare replicates for testing
- record results

Required knowledge includes:

Knowledge of:

- the role of the International Seed Testing Association (ISTA) and the ISTA Rules for Seed Testing
- fluorescence testing procedures
- seed biology
- enterprise and/or legal traceability requirements
- enterprise standard operating procedures (SOPs)
- relevant health, safety and environment requirements

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this Unit	Evidence of the ability to: • prepare replicates from working sample • assess seedlings using ultra violet light • counting and recording of results.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.
Method of assessment	This Unit should be assessed together with core Units and other Units of Competency relevant to the function or work role.
Guidance information for assessment	To ensure consistency of performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
<i>Seed</i> may include:	bare seed; treated seed; and coated seed that has been prepared as required.

Unit Sector(s)

Seed Testing