

REFEREE TESTING PROCEDURES & GUIDELINES

Definition: A referee test is a specially designed test which is sent out to a number of seed laboratories in order to obtain information intended to improve seed testing and to provide valuable feedback to the participating laboratories. Referee tests can be sent out either as independent sub samples (useful for purity, germination, biochemical tests, or other tests which would alter the sample) or as a “round-robin” sample, which is sent from one lab to the next (useful for seed identification referees).

Purpose: Some important reasons for referee testing are listed here:

- To promote precision, standardization, and uniformity among seed laboratories with regard to seed testing methods and interpretation in assessing seed quality.
- To identify specific areas in seed testing in which research is needed to promote uniformity among laboratories.
- To test the interpretation and adequacy of the existing AOSA Rules.
- To test “new” methods which may prove to produce more uniform results than the existing AOSA Rules.
- To determine if a new method is capable of producing uniform results for a species not yet found in the AOSA Rules.
- To provide data to be used as supporting evidence for future AOSA Rules changes.
- To serve as a seed identification training tool.

General Information on AOSA/SCST Referee Testing

Referee testing is coordinated by the Joint AOSA Referee/SCST Research committee, which has divided up the United States and Canada into six joint regions. There are generally two projects per joint region per year. The results of these referee projects are reported at the annual AOSA/SCST meeting in June of each year. A data base of past referee projects is maintained on the website.

Guidelines for Referee Testing

- Define the purpose of the referee project; focus on a specific question in seed testing.
- Check the data base of past referee projects and conduct a literature search before starting a referee project in order to determine whether similar projects have been previously conducted and to eliminate unnecessary duplication of projects.
- Include the following with each referee sample:
 - Clearly defined purpose
 - Specific written instructions for method(s) to be used
 - Response sheet with clear instructions for recording data/information
 - Deadline date for returning data (time limit per lab for round-robin samples)
 - Address, phone number, FAX, and email address of project coordinator
- When sending out potential herbarium specimens to laboratories for reference use, identification should be confirmed by taxonomic specialists.
- It is beneficial to include educational materials with the referee to aid in the identification of seeds, seedling abnormalities, TZ staining patterns, etc.

- When referee test results are compiled, data should be analyzed using appropriate statistical methods. Assistance with statistical analysis may be provided by the AOSA Research Committee.
- Project reports are due to the General Chairs of the Joint AOSA Referee/SCST Research Committee by April 30 prior to the annual meeting. Project reports should include: Title, Region, Purpose, Materials and Methods, Results, Discussion, Conclusions, Recommendations, Bibliography, Acknowledgments, and an Abstract. In addition, the project coordinator gives a 7-10 minute oral report of the project at the open committee meeting.
- Chairs of the Joint AOSA Referee/SCST Research Committee will provide digital copies of all the presentations at the meeting to the executive board/ or societies webmaster.