2023 Annual Meeting: Workshops

Additional Fee

Saturday, June 10th

Germination and Seedling Evaluation

8am-5pm

Fee: $200

Capacity: 30

Description: The objective of this workshop is to improve overall uniformity among analysts in conducting, evaluating, and reporting germination tests. The workshop's main emphasis will be on seedling evaluation. The first part of the workshop will address issues related to conducting germination tests, sources of variation, and germination uniformity. The second part, comprising most of the workshop, will cover issues related to seedling evaluation. These range from evaluating specific seedling structures of some families, to differentiating between primary and secondary infections.

Part I-Germination Testing (approx. 2 hours)

1. Overview-the need for improving uniformity
2. Sources of variation in seed testing
3. Germination test procedures: overview of principles and requirements
4. Germination test components and viability/dormancy determinations
5. Test results: tolerances
6. Test results: reporting

Break (15 minutes)

Part II-Seedling Evaluation (approx. 5 hours)

1. The seedling

2. General principles of seedling evaluation
3. The Seedling Images database: aid in seed evaluation and uniformity

Lunch Break (60 minutes)

Part II (Contd.)-Seedling Evaluation
4. Common causes of abnormal seedling development
5. Coleoptile and first leaf evaluation of grasses
6. Evaluating cotyledons/epicotyls of dicots-selected families (part 1)

Break (20 minutes)

Part II (Contd.)-Seedling Evaluation
7. Evaluating cotyledons/epicotyls of dicots-selected families (part 2)
8. Primary vs. secondary infections
9. Root abnormalities in germination tests: causes and classification
10. Open discussion

Sunday, June 11th

Seed Testing Method Validation, theory and practice

8am-4:30pm

Fee: $160

Capacity: 30

The objective of the workshop is to:

• facilitate a general understanding of method validation requirements and procedures under ISO standards

• apply method validation theory and principles for seed testing method and new technology application

Content will include:

1. Validate traditional testing methods for testing and rule proposals
2. validate or verify new technology applications in seed testing

The workshop will include presentations, discussions, and exercises about the ISTA Method Validation process, ISO requirements, and related statistical principles- Testing Plan, and data tools. The instructor of the workshop invited an experienced statistician in seed testing, the chair of the ISTA Statistics Technical Committee, Kirk Remund. AOSA/SCST New Technology Committee will facilitate the exercises of practice and application in seed testing methods in the workshop.

Genetic Technology Workshop; Adventitious Presence

1pm-5pm

Fee: $125

- DNA/Adventitious Presence testing methodologies - Protein and DNA
- International standards and references
- Qualitative, Quantitative, and Semi-quantitative processes
  Break
- SeedCalc introduction - Hands On
- STRF Project Review - Hands On

Monday, June 12th

Purity Workshop

1pm-4:30pm

Fee: $100

Capacity: 30

The purpose of the workshop is to:

- To provide training for seed identification skills in intermediate level
- To provide training for common issues in purity analysis

Content of the workshop:

1) Seed identification and reference collection
    a. Seed features of species, such as small legumes, grasses, Chenopodium, and brassica species
    b. Seed separation or identification exercises

2) Purity analysis:
    a. Seed mixture testing and calculation
    b. Testing on coated seeds
    c. Blower procedures and calibration