



SA305 Seed Technology Course

January through April 2021

Improve Your Understanding of Seed Testing Methods

Gain knowledge in seed testing by participating in our **2021 Seed Technology Webinar Series**.

Seed Academy's Seed Technology webinar series reviews the Association of Official Seed Analysis "Rules for Testing Seeds", relevant information from the Federal Seed Act, ISTA Rules, and Canadian Methods and Procedures are also covered. Seed Technology is presented as twelve (12) one-hour webinar classes. The primary references are: AOSA "Rules for Testing Seeds" & the SCST "Seed Technology Training Manual".

Participants will gain knowledge of seed testing, seed biology, principles of seed technology and practical experiences relating to seed testing and seed quality. This is an educational course targeting beginning or mid-career seed technologists who desire a better understanding of principles and concepts. This is a great course for those who currently or are planning to become a Registered or Certified Seed Technologist.

Topics to be Covered

Sampling and Submitted Samples

Purity Testing I

Purity Testing II

Examinations – Noxious & Cultivar

Seed Germination I

Seed Germination II

Microbes and Seed Interactions

Seed Dormancy

Test & Labeling Tolerances

Tetrazolium Testing I

Tetrazolium Testing II

Seed Vigor Testing

Our instructor(s) are:

Tim Gutormson, who brings 35 years of seed technology experience in seed testing and research. He has also instructed college level courses, workshops and webinars for 30 years. Tim has BS and MS degrees in Agronomy, is a Registered Seed Technologist of the SCST, past president of SCST, past chairman of the American Seed Research Foundation and the current chairman of Seed Testing Research Foundation. Tim is currently an owner of SoDak Labs, Inc., located in Brookings, South Dakota.

Laura Carlson, who brings 20 years of seed technology experience. She is a Registered Seed Technologist of the SCST, Evaluation and Purity Lab Mgr. at SoDak Labs and an owner of SoDak Labs, Inc., located in Brookings, South Dakota.

Course Fee:

Individual - \$350

Includes one session per week (live or recorded) for 12 weeks, one Seed Academy T-Shirt, Certificate of Completion and name submitted for Continuing Education points.



Join us Tuesday mornings from 10:00-11:00 AM Central Time Zone.

January 12 – Sampling and Submitted Samples: Review sampling frequency, primary, composite, submitted, and working samples. Demonstration of mixing/dividing seed using Gamet, Riffle and Hand methods. Section 1 & 2 AOSA Rules and ISTA Sampling Handbook.

January 19 – Purity I: Analysis and Aids: Review purity testing components, and discuss use of seed blowers, sieves, light and pressure in determining Pure seed units. AOSA Rules Section 3 and Table 3A. Section 4. Uniform Classification of Weed and Crop Species.

January 26 – Purity II: Uniform Blowing Procedure and Multiple Unit procedures.

February 2 – Examinations: Review Noxious weed, cultivar (wheat, soybeans, oats, sweetclover, ryegrass) and bulk examinations. AOSA Rules Section 5.

February 9– Seed Germination I: Review definitions, morphology, requirements of germination. Begin discussion patterns of germination with imbibition of water, enzyme activation, breakdown of storage tissues and initiation of embryo growth. Chapter 5 of Seed Technology, Copeland and McDonald).

February 16 – Seed Germination II: Review AOSA Rules Section 6, definitions, moisture, aeration, evaluation of seedlings, retests and special procedures/alternate methods for germination.

February 23 – Microbes and Seed/Seedling Interactions: Discuss concepts of field & storage fungi. Primary, secondary infections, saprophytic fungi & review four (4) case studies on interactions of fungi with seed testing.

March 2 – Seed Dormancy: Review Table 6A, discuss substrata methods, moisture, temperature, dormant seed, light, moistening agents, viability and prechilling. AOSA Rules Section 6.9.

March 9 – Seed Vigor I: Walk through the practical aspects of conducting the primary vigor tests including traditional cold, saturated cold, accelerated aging, soak test, and electrical conductivity testing.

March 16 - Tetrazolium Testing I: Review Section 8 of AOSA Rules and Tetrazolium Handbook basics on preparing and evaluation of staining using 3-4 row crop species.

March 23 – Tetrazolium Testing II: In depth look at some native species and challenges in preparing and evaluating certain species (flax, sunflower, Indiangrass, Green needlegrass, Switchgrass).

March 30 – Testing & Labeling Tolerances & Reports & Certificates: AOSA Rules Section 14, 15 and Federal Seed Act review regarding purity, germination and labeling tolerances. ISTA Orange and Blue Certificates.

April 6 (Optional) – Special Topics: as requested by participants.

Please register by Friday, January 10, 2021.

Three Ways to Register:

1. Online at: www.SoDakLabs.com 2. Call Marissa at 605-692-2758 3. Email: Marissa.Willert@SoDakLabs.com

NAME (Registrant 1): _____ PHONE: _____

NAME (Registrant 2): _____ PHONE: _____

COMPANY: _____

ADDRESS: _____

EMAIL: _____

- Bill my Account # _____
- Credit Card
- Check
- T-Shirt Sizes S M L XL XXL (pick one size)