2017
Seed Analyst Short Course
Germination: May 1 – 4, 2017
Purity: May 8 – 11, 2017

Corn and Soybean Quality Evaluation Workshop
August 15 – 17, 2017

Seed Testing Laboratory
Iowa State University | Ames, Iowa

Presented by
Iowa State University Seed Testing Laboratory
Iowa State University Seed Science Center
Iowa State University Extension and Outreach

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY
Seed Analyst Short Course

Overview
This short course is for persons interested in a solid introductory course that covers many species and topics in seed analysis and for those preparing to take an analyst accreditation exam (SCST: CPT, CVT, RST, CGT, RGT or AOSA: CSA – Purity, Germination, or both).

Benefits
The Seed Analyst Short Course is designed to provide:
- Basic information regarding seed quality evaluation;
- A broad course of study covering many seed species;
- Excellent preparation for either AOSA & SCST consolidated exam, purity or germination;
- An opportunity to attend either the session on purity, the session on germination, or both;
- An educational experience valuable to both the participants and their employers; and
- A chance to interact and share information with other seed analysis professionals.

Germination Week
Class: May 1-4, Exam: May 5
Participants will gain experience evaluating seedlings of 16 species (crops, vegetables, flowers, grasses, etc.) from the warm germination test plus work with cold tests, accelerated aging, tests for biotech traits (herbicide bioassay, immunoassay), tetrazolium and more. Popular and unique highlights of the week are a full day of TZ testing (six families) and a three hour session of moving between stations for hands-on work in the Germination lab.

Purity Week
Class: May 8-11, Exam: May 12
The emphasis of the week will be on seed identification through working with samples, advice from instructors, and use of electronic and hard copy references. Participants will have the opportunity to work with up to 32 species of seeds, grasses, legumes, cereals plus weed species present in some of the samples. Hands-on activities also include using seed blowers, mechanical dividers, seed counters and a moisture meter. Lectures will be interactive and will include rules for testing seeds, uniform blowing procedure, multiple unit procedure, tolerances, varietal purity, sampling and coated unit procedures.

Special Requests
Participants interested in working with species not covered during the two weeks of the short course will need to contact Mike Stahr (mgstahr@iastate.edu, 515-294-6826) at least three weeks before the start of the appropriate week of the course.

A list of species to be worked with during the short course is available on the training page of the Seed Lab web site www.seedlab.iastate.edu.

Exams:
- Short course exam each week (helpful in preparation for the consolidated exams).
- Seed analyst/seed technologist exams (Apply to AOSA and SCST).

Agendas available on the Seed Lab training page: www.seedlab.iastate.edu

Suggested Reading
- Seed Technologist Training Manual. For purity short course, especially review chapters 3 and 7. For germination short course, chapters 8, 9, 10, 11, and 12. Available from SCST at www.analyzeseeds.com/publications/.
- Principles of Seed Science and Technology, 3rd edition, by L.O. Copeland and M.B. McDonald. Browse chapters on seed formation, seed germination, and seed testing.

Corn and Soybean Quality Evaluation Workshop

Overview
This workshop is for persons interested in hands-on experience with most available testing methods for corn and soybeans. Seed analysts, genetic technologists, lab managers, seed brokers, journalists, and others will benefit from taking this workshop.

Participants will evaluate seedlings from testing methods on two seed lots of corn and two soybean seed lots and will see how their results compare to the class average, high and low results. Traditional seed testing methods include warm germination (sand, rolled paper towels, VersaPak), tray cold, towel cold, saturated cold, accelerated aging (AA), tetrazolium (TZ), fast green on corn, bleach test on soybeans, and electrical conductivity.

Lecture topics include seed and seedling morphology, evaluation rules (AOSA, ISTA, Canada), sampling, seed vigor, and vigor testing methods, identification of common fungi, TZ, seed count, moisture, seed conditioning, and testing for biotech traits.

This workshop will include segments on seed health testing and biotech trait testing (trait purity, AP/LLP testing). Hands-on segments will include herbicide bioassay, ELISA and lateral flow strips.
PARTICULARS

It's Easy to Register!

Online at www.cpm.iastate.edu/event

Mail your registration to
Registration Services
Iowa State University
1601 Golden Aspen Drive, Suite 110
Ames, Iowa, 50010

Register via fax (515) 294-6223.

Because this is a hands-on learning situation, enrollment is limited to 20 for Germination week, 12 for the Purity week, and 20 for the Seed Quality Workshop. Registration is on a first-come, fees-paid basis. Registration and special request deadline for the Purity short course and for Germination short course is April 17, and the Quality workshop is August 1.

Registration Fees
The registration fee is $350 for the germination session, May 1–4, $350 for the purity session, May 8–11; or $630 for both sessions. The registration fee for the Seed Quality Workshop is $300. Your registration fee includes all program handouts and breaks. Lunch is provided all three days of the quality workshop and on the Thursday of each short course. Morning and afternoon breaks provided all days. Pay with check, credit card, or purchase order. Online registration is by credit card only. To pay by check or purchase order, please complete registration form and return with payment.

Exams
Germination exam will be offered on May 5 and the AOSA and SCST Purity exam will be offered on May 12. NOTE: Attendance at short course not required to take exams. You must contact AOSA/SCST to apply to take the exams. Application forms and materials are available from the following websites, www.aosaseed.com and www.seedtechnology.net, or by contacting the AOSA/SCST office at (202) 870-3342.

Suggested Materials to Bring:
• AOSA Rules for Testing Seeds
  ▪ Volume 1 “Principles” (P, G, Quality)
  ▪ Volume 4 “Seedling Evaluation” (G, Quality)
  ▪ AOSA Tetrazolium Testing Handbook (G, Quality)
• Hand lens, if you prefer – dissecting scope provided.
• Forceps will be provided or bring your own.
• Calculator

-P = Purity, G = Germination

AOSA publications available at www.analyzeseeds.com/publications/.

Suggested Reading
• Seed Technologist Training Manual
  Available from SCST at www.seedtechnology.net
• Principles of Seed Science and Technology (3rd edition)
  Copland and McDonald

Change in Plans?
If you cannot attend the short courses or workshop, you may send a substitute. If you cancel your registration at least one week in advance of the event, your registration fee will be refunded, less a $25 processing charge. For cancellations made within a week of the workshop, you’ll be reimbursed 50% of your fee. No refunds are provided for cancellations made after the start of the workshop.

Travel
Centrally located in the Midwest, Ames is easily accessed by U.S. Highways 30 and 69, as well as Interstate 35. The Des Moines International Airport is located 40 minutes south of Ames, and is served by major commercial airlines. Several car rental agencies maintain offices in the airport.

Lodging in Ames
Best Western Plus University Park Inn and Suites (515) 296-2500. The Seed Lab provides a shuttle from Best Western Plus University Park Inn and Suites to the short courses in May. (There will not be a shuttle for the Quality workshop in August).

For a complete listing of hotels in Ames, call the Ames Convention & Visitors Bureau at (800) 288-7470 or go to www.visitames.com.

Time
Short courses and the workshop begin at 8:00 a.m. each day of class and conclude at 5:00 p.m., except Registration is from 8:00-8:30 a.m. on the first day of each session.

Location and Parking
The sessions will be held in the Seed Science Center, located in the northeastern part of the Iowa State University campus. Parking permits will be issued one week prior to each course.

Further Information
For questions about program content, contact Mike Stahr at the Seed Science Center, mgstahr@iastate.edu or (515) 294-6826.

For registration questions, contact Registration Services, (515) 294-6222 or registrations@iastate.edu.

Special Needs
If you need accommodations for a disability, call Registration Services at (515) 294-6222 or email registrations@iastate.edu.

Continuing Education Credit
Continuing education credits will be given as appropriate from AOSA, SCST, and Iowa State University.

Iowa State University does not discriminate on the basis of race, color, age, ethnicity, religion, national origin, pregnancy, sexual orientation, gender identity, genetic information, sex, marital status, disability, or status as a U.S. veteran. Inquiries regarding non-discrimination policies may be directed to Office of Equal Opportunity, 3410 Beardshear Hall, 515 Morrill Road, Ames, Iowa 50011, Tel. 515 294-7612; email eoooffice@iastate.edu.
# Participant Information

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# Fees

- ONLY Germination, May 1–4: $350
- ONLY Purity, May 8–11: $350
- BOTH Weeks: $630
- Corn and Soybean Seed Quality Workshop: $300

**TOTAL** $_______

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## Method of Payment

- Check payable to Iowa State University
- Visa
- Mastercard
- Discover

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**By Mail**  Registration Services
Iowa State University
1601 Golden Aspen Drive
Suite 110
Ames, Iowa 50010

**By Fax**  (515) 294-6223

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Iowa State University requests this information to preregister you in a conference. No one outside the university, with exception of participants in the conference, is routinely provided this information. If you fail to provide the required information, we cannot promise accurate registration. (Reference: Iowa Code, Chapter 22.11; Iowa Fair Information Practices Act 11-1003.)