2016
Seed Analyst Short Course
Purity: April 18 – 21, 2016

Corn and Soybean Quality Evaluation Workshop
August 16 – 18, 2016

Seed Testing Laboratory
Iowa State University | Ames, Iowa

Presented by
Iowa State University Seed Testing Laboratory
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 training for the Registered Seed Technologist Examination or the AOSA CSA Exam;
- 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.

**Purity Week**
**Class:** April 18-21, **Exam:** April 22
Participants will have the opportunity to work with 32 desired species (in addition to weed species included in purity exercises). In addition to conducting purity exams and seed identification, hands-on activities include using seed blowers, mechanical dividers, moisture meters, and seed counters. Lecture topics include AOSA Rules, uniform blowing procedures, multiple unit procedure, purity tolerance tables, varietal purity, coated seed procedures, and sampling.

**Germination Week**
**Class:** April 25-28, **Exam:** April 29
Participants will gain hands-on experience evaluating seedlings of 16 species (crops, vegetables, flowers, grasses) and working with warm and cold germination, accelerated aging, fluorescence, herbicide bioassay and ELISA for biotech crops, tetrazolium (TZ) and more. Two highlights of the week are a full day of TZ testing (six families) and a three-hour session moving between stations in the Germination Lab.

**Special Requests**
Those interested in working with species in addition to 32 desired species during Purity Week and 16 species during Germination Week should contact Mike Stahr (mgstahr@iastate.edu, 515-294-6826) at least three weeks prior to the start of that week of the short course. A list of species worked with during the short course is available by contacting Mike.

**Exams:**
- Short course exam each week
- Seed analyst/technologist exams (Apply to AOSA & SCST)
- Genetic technologist exams (Apply to SCST)

Find agendas on the Seed Lab website: [www.seeds.iastate.edu/seedtest/training.html](http://www.seeds.iastate.edu/seedtest/training.html)

**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.seedtechnology.net.
- *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.

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**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 14 for the Purity week, 21 for Germination, and 21 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 4, and the Quality workshop is August 1.

Registration Fees
The registration fee is $350 for the purity session, April 18–21; $350 for the germination session, April 25–28; 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
The AOSA & SCST Purity exam will be offered on April 22 and the Germination exam will be offered on April 29. NOTE: Attendance at short course is 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 (309) 736-0119.

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


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 April. (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. You will receive your parking permit with the confirmation of your registration.

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 can be directed to the Director of the Office of Equal Opportunity, 3350 Beardshear Hall, (515) 294-7612.
# 2016 Seed Analyst Short Course • April 18–21 and April 25–28, 2016

# 2016 Corn and Soybean Quality Evaluation Workshop • August 16–18, 2016

Registration deadline is appreciated by April 4, 2016, for short course; August 1, 2016, for Corn and SB Quality Workshop

## 1. Participant Information

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## 2. Fees

- ONLY Purity April 18–21 $350
- ONLY Germination April 25–28 $350
- BOTH Weeks $630
- Corn and Soybean Seed Quality WS $300

**TOTAL** $_______

## 3. Method of Payment

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

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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.)