2014
Seed Analyst Short Course
Purity: April 14 – 17, 2014
Germination: April 21 – 24, 2014

Corn and Soybean Quality Evaluation Workshop
August 12 – 14, 2014

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 14-17, Exam: April 18
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 21-24, Exam: April 25
Participants will gain hands-on experience evaluating seedlings of 16 species (crops, vegetables, flowers, grasses) and working with the following test methods: warm and cold germination, accelerated aging, fluorescence, herbicide bioassay and ELISA for biotech crops, and tetrazolium (TZ). 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
• Genetic technologist exams (if requested)

Find agendas on the Seed Lab website: 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.

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, lateral flow strips (including combs), blotter, agar, and seedling wash.
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, 24 for Germination, and 24 for the Seed Quality Workshop. Registration is on a first-come, fees-paid basis. Registration and special request deadline is requested by April 4, 2014, for Purity and Germination Short Course.

Registration Fees
The registration fee is $350 for the purity session, April 14–17; $350 for the germination session, April 21–24; or $630 for both sessions. The registration fee for the Seed Quality Workshop is $300. The AOSA/SCST exams are $25 per exam. 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 a check, credit card, or purchase order.

Exams
Purity exams will be offered on April 18 and germination exams on April 25. Dates to be announced for RGT exam. 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 (309) 736-0119.

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

P = Purity, G = Germination, Q = Quality

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 (877) 229-6668 or (515) 296-2500. The Seed Lab provides a shuttle from Best Western Plus University Park Inn and Suites to the workshop.

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.
# 2014 Seed Analyst Short Course • April 14–17 and April 21–24, 2014

## 2014 Corn and Soybean Quality Evaluation Workshop • August 12–14, 2014

Registration deadline is appreciated by April 4, 2014, for short course; August 1, 2014, for Corn and SB Quality Workshop

### 1. Participant Information

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<tr>
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<td>Company / Affiliation</td>
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<td>ONLY Purity April 14–17</td>
<td>$350</td>
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<tr>
<td>I’d like to take the Purity exam on April 18.</td>
<td>$25</td>
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<td>ONLY Germination April 21–24</td>
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<td>I’d like to take the Germination exam on April 25.</td>
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<td>BOTH Weeks</td>
<td>$630</td>
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<td>Corn and Soybean Seed Quality WS</td>
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**TOTAL $_____**

*Need permission from AOSA to take exam*

### 3. Method of Payment

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

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### It's Easy to Register!

- **Online** [www.cpm.iastate.edu/event](http://www.cpm.iastate.edu/event)
- **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.)