



Iowa State University Seed Testing Laboratory

Seed Science Center
Iowa State University
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Our Goal:

To exceed the expectations of our customers by offering the highest quality seed verification services.

New Look and New Services in Trait Laboratory

Isoelectric Focusing, Real-time PCR, Immunoassay, Herbicide Bioassay ... one lab, one stop for your genetic purity testing needs!

Our trait labs have been updated – new surroundings and new equipment, but the same commitment of personal attention to your seed testing needs. Isoelectric focusing (IEF) uses a pH gradient to produce the banding patterns that identify selfs and outcrossing in your seed lots. The final product is a “photograph” of the banding pattern that can be kept indefinitely. Our DNA lab continues to move forward in technology with the addition of a robotic liquid handler that will enable us to produce even quicker, accurate results.

Of course, the “old” standbys are still much in demand – ELISA testing to check for genetic purity of insect tolerant seed, lateral flow strip testing of organic soybeans, and herbicide bioassay testing for herbicide tolerant crops. Triple stacks and new traits make an

interesting area of seed testing even more remarkable. Whether you need an adventitious presence screen or a quantitative look at possible unintended events, we look forward to catering to your seed testing needs!



Mike Stahr examines soybean trait tests.

Seed Conditioning Training Opportunities Greatly Expanded

The Seed Science Center received very good reviews for the inaugural summer of Alan Gaul's seed conditioning workshops. Alan spent time last winter contacting industry personnel about their conditioning training needs. It paid off with revamped workshops on gravity tables, seed treatment, corn, soybean, and popcorn conditioning. The Center's seed conditioning tower has been updated, and new equipment enhances learning opportunities at each workshop session.

Anyone who knows Alan from his days setting up conditioning facilities know

that he has a wealth of practical knowledge and genuinely enjoys working with clients to solve conditioning problems and knowing what piece of equipment will best do the job. You'll find the cutting edge of conditioning technology demonstrated at the Seed Science Center's conditioning workshops. Alan can be reached at 515-294-4011 or agaul@iastate.edu to discuss any seed conditioning issues.



Alan Gaul shows the gravity separator to recent workshop participants.

ISU Seed Testing Laboratory

For over 100 years, Iowa State University has provided accurate, professional seed testing services to the seed industry. The Seed Lab annually performs tests on tens of thousands of seed samples, making it one of the world's largest seed testing programs. The Seed Lab analyzes more than 300 plant species for a variety of tests including germination tests to both AOSA and ISTA standards, vigor, purity and noxious weed exams, trait tests and over 200 different seed health tests. The staff is a group of dedicated professionals with many years of experience. The lab's modern facilities include the latest scientific research and computer technologies.

Upcoming Events

See us upcoming meetings!

- **ASTA Corn & Soybean Conference**
December 5-8, 2006

Lisa Shepherd, Mike Stahr, Liz Miller, Alan Gaul, Dr. Yuh-Yuan Shyy, Dr. Gary Munkvold, Dr. Susana Goggi, Dr. Manjit Misra

- **ASTA Vegetable Conference**
February 3-6, 2007

Dr. Gary Munkvold, Dr. Denis McGee, Lisa Shepherd

- **AOSA Annual Meeting**
June 4-11, 2007

Mike Stahr, Kim North, Josie Kraft

AOSA Seed Analyst Short Course

New Dates!

Purity
April 17-20, 2007

Germination
April 24-27, 2007

New Seed Pathologist Named Endowed Chair

Dr. Gary Munkvold has been named Seed Science Endowed Chair. He will lead the seed health program for the Department of Plant Pathology and the Seed Science Center. Dr. Munkvold is internationally known for his research on the transmission of important seedborne pathogens and the reduction of mycotoxins in foods and feeds.



Meet Our Staff



Lisa Shepherd has worked at the Seed Testing Lab since 1998. She has worked with seeds her entire life, starting with her father taking her out to seed corn production fields as a toddler. After graduating from Iowa State with a BS in Agronomy and Seed Science and a MS in Plant Pathology with Denis McGee, she worked at STA Laboratories in Longmont, CO before heading back to her home state of Iowa. Lisa has worked as the Seed Health Testing Coordinator, testing seed for disease for quality assurance and for phytosanitary certification. Her lab has grown from testing 30 pathogens when she arrived to now testing for over 200 pathogens. She is also the Acting Director of the Administrative Unit of the National Seed Health System. Most recently, she has taken the reins as Interim Laboratory Manager. Lisa lives in Nevada with her husband Andrew, who is an Electrical Engineer with Almaco, and one Siamese cat. In her 2 minutes of spare time she enjoys renovating her historic 1920's home and traveling with her friends and family (the above photo was taken in Quebec!). Lisa can be reached at 515-294-6493 or leese@iastate.edu, and would be happy to answer any of your seed testing questions!

The More Things Change ...

While the ISU Seed Laboratory is keeping up with changes in seed testing and biotechnology, we continue to offer the basics – warm germs, vigor testing, seed health testing, and purity. From our longest-serving analyst Sandra Hegna in the Purity Lab (35 years at ISU) to our newest analyst, our focus is sharpening our seed testing skills and treating our relationship with our customers as in small town businesses – personal and reliable. Knowing that timely results are essential, we offer many ways to access your results. Whether you use your computer anytime of the day to check on progress of your samples or give Customer Care a call, we are pleased to be of service. Check our web site (www.seeds.iastate.edu/seedtest) for information on setting up your own secure on-line locker or to find out more about our testing and training offerings. It might be surprising to find out that a lab widely known for testing Midwest staple crops like corn and soybeans, also tests over 300 species of seed ranging from flower seed to native species to traditional grasses and legumes.