



THE NEWSLETTER OF THE

Iowa State University Seed Testing Laboratory

TESTING SEEDS SINCE 1895

ISU Seed Testing Lab Receives Seed Health System Accreditation

Upcoming Events

See us at the ASTA Corn and Soybean Conference in Chicago

Dr. Manjit Misra
Lisa Shepherd
Mike Stahr
Dan Curry
Dr. Susana Goggi
Dr. Denis McGee

See us at the ASTA Vegetable and Flower Seed Conference in San Francisco

Lisa Shepherd
Dan Curry

Seed Technology Conference February 15, 2005

Further Reading

Check out these Iowa State University Extension links for the latest in crop production news and publications:

Frosts, Grain Marketing and Spring Price Prospects: <http://www.extension.iastate.edu/newsrel/2004/oct04/oct0403.html>

Updated Dry Grain Management Publication Available: <http://www.extension.iastate.edu/newsrel/2004/sep04/sep0416.html>

Obtaining Proper Seed Lot Samples: <http://www.extension.iastate.edu/Publications/NCR403.pdf>

Iowa Grain Quality Initiative: <http://www.extension.iastate.edu/Publications/EDC162D.pdf>

Have you seen our new updated website? Check out <http://www.seeds.iastate.edu/seedtest/>

This summer, the Iowa State University Seed Testing Laboratory became accredited by the National Seed Health System (NSHS) to perform laboratory testing for phytosanitary certification. The NSHS is a USDA-Animal and Plant Health Inspection Service (USDA-APHIS) program that provides certification for phytosanitary export from the United States. Before the NSHS, there were international programs guiding methodology and techniques for seedborne diseases such as the International Seed Health Initiative (ISHI) and International Seed Testing Association (ISTA), but no programs specific to the United States or the exportation of seed.

The NSHS focuses on three main goals: (1) standardizing methods used in phytosanitary matters such as seed testing and field inspection, (2) accrediting private companies to conduct their own field inspections, take their own seed samples for testing, perform their own visual inspections for phytosanitary export, or test for phytosanitary regulated diseases, and (3) helping with phytosanitary reform and fostering equitable trade of seed. Accredited laboratories have the ability to collect and report data that the USDA-APHIS needs in order to process phytosanitary certificates required by most countries importing seed. According to USDA-APHIS, "accreditation is official recognition of proficiency resulting in the approval and authority to perform specific tasks or provide specific services in full or partial support of official obligations. Accrediting



Lisa Shepherd examines seeds for fungi

personnel, organizations, facilities, and processes associated with phytosanitary testing enhances USDA-APHIS's ability to protect plant resources and facilitate trade. Accreditation recognizes consistent levels of competency and confers specific authority."

Since the ISU Seed Testing Laboratory is an official state laboratory for testing seed diseases, we have always been approved to run phytosanitary testing services. We were the first state laboratory to be accredited under this program. Here at the Seed Laboratory, we are excited to be a part of a new national system of accreditation which provides standardized seed health testing methods and third party audits approved by the federal government to ensure uniform, consistent, reliable, and repeatable data.

NSHS Accreditation, continued on next page

Trait Testing Options, Samples Grow

The ISU Seed Testing Laboratory is continuing to broaden its trait testing options with the verification of YieldGard Plus® corn samples. We have seen a significant increase in Liberty® and Round Up® herbicide bioassay testing and in Bt and Herculex® ELISA testing. We are one of the first labs to offer Cry 3Bb and Cry 1Ab genetic purity testing on one plate. Last season, this testing required the use of two separate plates.

Check our web page's trait testing price list for a

complete listing of trait testing options. We offer planting of samples within eight business hours and prompt evaluation. Immunoassay (ELISA and lateral flow strips) corn genetic purity and adventitious presence (AP) testing are done on seedlings to insure maximum expression of protein. Contact Mike Stahr (515-294-6826, mgstahr@iastate.edu) with your trait testing questions.

ISU Seed Testing Laboratory

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TESTING SEEDS SINCE 1895

For over 100 years, Iowa State University has provided accurate, professional seed testing services to the seed industry. The Seed Testing Laboratory annually performs tests on tens of thousands of seed samples, making it one of the world's largest seed testing programs. The Seed Testing Laboratory tests corn, soybeans, and more than 300 other species of seeds.



ISO 9001 Quality Policy

The Iowa State Seed Testing Laboratory is committed to exceeding the expectations of our customers by offering the highest quality seed testing services.

We are committed to a strategy of continual improvement of our laboratory's operation and we strive to achieve complete customer satisfaction.

Personalized and Prompt Service

Our customers are managers. You manage dozens and sometimes hundreds of lots of seeds that are in all stages of quality and have to make many decisions concerning each lot of seed. We want to be your partner in providing you with knowledge, so that you can make informed decisions about your seed. We have eight AOSA Certified Seed Analysts that are ready to work with you. We also recognize your need for information quickly and provide you with a fast turn-around service for no extra charge.

Personalized Service: Have a particular interest in one of the samples you are sending to us? Just give us a call and we will follow the progress of the sample even more closely and pay particular attention to the final evaluation. One of our Certified Seed Analysts will call you for a one-on-one discussion about our observations of your sample.

Timely Service: Currently, we have implemented a policy of planting corn and soybean samples within eight hours of receiving them. This assures prompt planting of your samples. As an ISU Seed Lab customer, you can track the progress of your samples by simply going online and logging onto our website using your company ID number and password. Our online service will tell you: (1) when we received your sample, (2) when the sample was planted, (3) the date the sample was finished, and (4) the result of the germination and/or vigor tests. Other results such as health testing and trait testing will also be given. You can be assured that the results are accurate, timely, and secure.

Give us a try and let us prove to you that we are your valuable partner in the seed business.

What Are Stacked Traits?

Genetically enhancing crops with a single trait (insect control or herbicide tolerance) dramatically changed the seed business. Now, two or even three traits (referred to as stacked traits) can be genetically added to crops. While this addition increases farmers' options, they can also make storage and testing of seed more difficult. Currently, traits are commonly added through the use of bacteria instead of the previous popular gene gun method. ELISA plates and lateral flow strips can detect multiple traits without the use of multiple testing devices.

NSHS Accreditation, *continued*

As a part of this nationally and internationally accepted program, we can give our customers even greater assurance of quality testing results and services. Our voluntary participation in this program shows our continuing commitment to providing our customers with the best in seed health testing for phytosanitary and quality assurance needs. We are currently testing over 200 different pathogens on a wide variety of crops including corn, soybeans, and vegetables. For more information about the ISU Seed Testing Laboratory, visit our website at <http://www.seeds.iastate.edu/seedtest/>. For more information about the National Seed Health System, visit <http://www.seedhealth.org>.

Meet Our Staff



Elizabeth Miller, the ISU Seed Testing Laboratory's newest full-time employee, started at the Seed Lab as a seasonal employee last winter. Late this September, she took a full-time position as Seed Analyst I. Liz received her Bachelor's of Science Degree in Horticulture from the University of Wisconsin at Madison and was formerly employed by the ISU Plant Pathology department. The effect of field conditions on seeds intrigues Liz, as she finds seed analysis very interesting. Liz enjoys the diversity of her work and interacting with over twenty student employees at the Seed Testing Lab.

Liz resides in Ames and has a daughter, who is a freshman in college and a son, who is a freshman in high school. As an Iowa Master Gardener, Liz does a lot of volunteer work in her spare time. Liz's love of gardening and plants shows, as she has a passion for perennial and vegetable gardening. Welcome, Liz, to the ISU Seed Testing Lab!