



CEO Report

by Doug Miller, CEO • dmiller@ilcrop.com

Seed Industry Partner

Illinois Crop strives to be a voice of reason, prudence and stability for the seed industry. While the popular farm press has been filled with stories of dicamba drift, symptoms and suspected damage, we have been keeping an eye on the possibility of dicamba affecting seed production fields. Earlier in the season we received calls asking about what the possibilities are and what measures should be taken to address fields where dicamba damage is suspected. My personal feeling is that only you and your growers know when and where damage occurred and the best I can do is share what you should know to be up to speed on where the risks might be. According to Tom Barber, University of Arkansas Extension, “the most sensitive stages where yield loss can result from off-target movement of dicamba ranges from late vegetative through early reproductive (V6-R2).” Barber goes on to say “The interesting observation in regards to dicamba symptomology on soybean plants is that foliar symptoms are not apparent much past R3 or R4.” In other words lack of leaf cupping does not necessarily mean you have avoided damage to the seed crop. So keep in mind that dicamba can silently cause seed quality issues.

Earlier this season we sent an e-update out to all subscribers advising seed growers to monitor soybean pod development. Seed growers were also advised to consider storage issues and

where replacement seed would come from if damage were to occur. Now that we are entering the testing season I would like to share again the potential seed quality issues. Intentional applications of dicamba, at 1/64X and 1/256X rates, by Arkansas Extension showed that applications less than 1/256X may not have a significant effect on seed quality. Seed quality issues include reduced germination and leaf cupping in the next generation. Germination issues can occur for a host of different reasons other than herbicide damage. The smoking gun will be symptomology in the subsequent generation. Currently we feel that we will be able to see leaf cupping in our greenhouse growouts as well as our Puerto Rico growouts. The question is how many seeds will make for an adequate growout? Personally the next question that comes to my mind is how many seedlings with cupped leaves can be tolerated by your customer? That is a question I don't think anyone can really answer. Tom Barber, Arkansas Extension, feels that symptoms should be observable by V3 and if all indications are normal growth at V3 then dicamba exposure was negligible or non-existent during seed development the previous season. If you or your grower suspect dicamba may be an issue for your seed crop please contact us about growout options (number of seeds to test) and pricing for larger growouts (\$75-\$170).

As I have stated earlier in this article Illinois Crop strives to be a voice of reason, prudence and stability for

the seed industry. The need for more weed control options is very real and will continue to grow as our body of knowledge on weed resistance grows. I have a quote that I picked up from one of the many books on leadership that I have read. It states that we must “confront and comprehend reality on a daily basis.” It may take some time to have a firm grip on reality as the facts are gathered. Technology always has a “state of the art” that represents the best we can do with the knowledge at hand. So once the facts have been determined the state of the art can be accurately and effectively updated. Let the state of the art prevail and resist the “art of the statement” to move science forward.

Calendar of Events

October 4-5
AEIC Meeting
Indianapolis, IN

November 4-7
ASTA Farm & Lawn Conference
Western Seed Assoc. Annual Conf.
Kansas City, MO

November 23-24
CLOSED - Thanksgiving

December 4-8
ASTA Seed Expo
Booth #539
Chicago, IL

December 25
CLOSED - Christmas

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Seed Laboratory News

by Steve Beals, Seed Lab Director • sbeals@ilcrop.com

Brittany Stoll Attains RST Status

It is with great pride I announce that as of June 2017, Brittany Stoll has become a Registered Seed Technologist with the Society of Commercial Seed Technologists.



Brittany has been with Illinois Crop since the summer of 2014. She began working for us as a field inspector and then transitioned into the seed lab later that fall. Brittany began preparing for the RST exam in the spring of 2015. She traveled to IA State University to take the germination portion of the exam on May 5, 2017 and then again on May 12, 2017 for the purity portion. The Illinois Crop Seed Lab team now consists of 3 Registered Seed Technologists; Brittany Stoll, Analyst, Gary Cook, Chief Analyst, and Steve Beals, Seed Lab Director. The team that we have assembled builds on the knowledge and experience that we possess, allowing the Illinois Crop Seed Lab to be recognized as one of the leading seed testing laboratories in the industry.

New Laboratory Accreditation

The Illinois Crop Seed Lab became an Officially Recognized Seed Testing Laboratory by the Canadian Food Inspection Agency

in late January 2017. To gain this accreditation I took an exam where I had to apply the Canadian Methods and Procedures for Testing Seed and report my findings. This accreditation allows the Illinois Crop Improvement Association's Report of Analysis to be used for Canada pedigreed grading purposes. Along with the lab accreditation, I took exams to become an accredited US Canadian Grader. I passed exams for Grade Tables 1, 2, 3, 4, 5, 6. This allows me to Grade seed using all of the Grade Tables of the Seed Regulations. If you need your seed tested for Canada, please mark it clearly on the sample submitted. If you have any questions on testing seed for Canada, please let me know.

Seed Sampling and Sample Size

With seed testing for the 2017 crop closing in on us, I thought that I would write an article on how to obtain a sample for testing, the size of the sample needed for testing, and forwarding the samples to the lab for testing. The first step to obtain a sample for testing is to determine the most appropriate sampling tool and technique for the sample being taken. The sampling tool should be able to reach all areas of the seed container to ensure that the sample drawn is the most representative sample as possible for the seed lot. For seed that is packaged in containers of 60 pounds or less, make sure that the seed is drawn from different paths whether using a probe or by hand. For seed lots with 1 to 5 containers of seed, draw 5 probes or subsamples to form a composite sample. For seed lots that contain 6 to 244 or more

containers of seed, draw 5 probes or subsamples plus 10% of the number of bags in the lot. For seed lots with 245 or more containers at least 30 probes or subsamples should be drawn, there is no maximum number of samples to draw for this category. Once the probes or subsamples are drawn and mixed thoroughly to form the composite sample, a sample can be divided from the composite sample for testing. More often, agronomic seed is being placed in mini-bulk containers (1,000 – 3,000 pounds). The sampling procedures for 1 mini-bulk container should have at least 5 probes or subsamples drawn from different areas of the container. For 2 or more mini-bulk containers in the seed lot, take at least 6 probes or subsamples from the lot. If you have 2 to 6 mini-bulk containers in the lot, divide equally the number of probes or subsamples to be taken from each container. For seed that is being stored in bulk such as storage bins etc., take as many samples as if the seed were in containers that may be used for the seed. The samples should be drawn from well distributed areas throughout the bulk. Some seed may be packaged in packets, tapes, or mats. Unopened packets/tapes/mats may be collected and combined to get the desired amount of seed that is needed for testing.

The amount of seed needed for testing varies with the size and weight of the seed to be tested. When submitting most grass seeds, alsike, white clover or seeds similar in size to those crops, 60 grams or approximately 2 ounces of seed is needed for testing. For crops such as alfalfa, crimson clover, red clover, flax, lespedezas, millet, rape, ryegrass or seeds similar

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Shipping Samples

Harvest is well under way and the testing season is upon us again. Seed samples have started arriving at the lab for testing, and each day brings a few more boxes to unpack than the previous day. As we move into this season here are some sample shipping tips.

Use enough packing material to keep samples secure in the box. If the box is partially filled the samples bounce around and the bags may split.

Don't use the biggest box you can find for shipping. It seems like the bigger the box the more it is abused in transit.

Use an appropriate sample bag. Typically we get most samples in heavy paper envelopes and thick re-sealable plastic bags, and they all do a good job. It is the thinner cheaper variety of bags that don't usually make it through shipping.

Include testing and contact information with the samples. Every year we get samples that come without identification, instructions, or contact information. Most of the time one or more details are missing, but on occasion the only information we have is the return address on the box. The basic details we need to proceed with testing are; what tests do you want performed on each sample, how do you want each sample identified, and who do the samples belong to for billing.

Illinois Crop can provide customers complimentary plastic sample bags that come preprinted with the most common testing option. If you need bags, boxes or help selecting the right tests we are here to assist you. Give us a call 217-359-4053, send an email to ilcrop@ilcrop.com or drop by the office in person and we will be glad to help.

New: Erisman Wheat

A new wheat variety named Erisman was developed by the University of Illinois Agricultural Experiment Station and released in 2017. Seed for Erisman will be produced under the Certified Seed System Standard which is administered by Illinois Crop in Illinois. Recognized classes of Erisman will include Breeder, Foundation, Registered, and Certified. In-state producers of Erisman seed will be eligible to have their information published in Illinois Crop's annual Seed Directory.

Erisman is an early maturing soft red winter wheat adapted to Illinois and surrounding states for organic production. The new variety was developed by the University of Illinois small grains breeding program headed by Dr. Fred Kolb. The project was spearheaded by Alison Krill, who worked with Fred since 2013. Breeding lines were selected that were disease resistant and moderately tall to provide competition with weeds. Breeding lines were evaluated at multiple locations for several years.

The U of I wheat breeding program partnered with local organic farmer Harold Wilkin to evaluate Erisman under organic production on Janie's Farm in Danforth IL. Harold has been working with others including U of I Extension's Bill Davison and the Grand Prairie Grain Guild to develop high quality grains for local production.

The variety has been named "Erisman" in honor of Jack Erisman, a long-time leader in Illinois' sustainable agriculture movement and one of the first organic farmers in the state, who was involved in the formation of the Illinois Organic Crop Improvement Association Chapter, The Illinois Sustainable Agriculture Society and the Council of Food and Agriculture

Research. While Jack acknowledges that the variety might be tall, like he is, he isn't sure he deserves the honor. Jack thought the name 'Goldmine' would have been fun, which is the somewhat ironic name he gave his farm due to the pale soil and eroded condition it was in when he took it over.

The new variety is already making waves as grain grown in the 2017-18 growing season on the University of Illinois campus' South Farms will be milled at the University's Department of Food Science and Human Nutrition Pilot Processing Plant for use by the campus' Dining Services.

Links of Interest:

UIUC Food Science and Human Nutrition Pilot Processing Plant
<https://fshn.illinois.edu/pilot-plant>

Illinois Organic Growers Association
<http://illinoisorganicgrowers.org/>

Dr. Fred Kolb – U of I Plant Breeder
<https://cropsciences.illinois.edu/people/profile/f-kolb>

Bill Davison – Local Food Frontier Blog
<http://web.extension.illinois.edu/lmw/eb343/>

Janie's Farm Organics
<https://www.facebook.com/JaniesFarmOrganics/>

Staff Update

If you have worked with the Field Services department over the last several years you have likely gotten to know Jackie Ester our department's technician. Jackie assists with all the daily tasks of managing the field inspectors and conducting trait testing in the greenhouse. She is a recent newlywed and is now going by her new name, Jackie Houston. So don't be alarmed if you hear from a Jackie Houston, it is the same great Field Services Technician you were accustomed to working with before.



30th Birthday

It will be hard for some of our readers to believe but in 2018 the Identity Preserved Grain Lab will celebrate its 30th birthday. In the late 1950's Louis West and Sam Huey found the demand for clear hila soybeans in Japan and using certified seed of clear hila varieties delivered an identity preserved crop to its customers. The idea of identity preservation grew and began to influence the research and breeding efforts in the seed industry. Today the Identity Preserved Grain Lab evaluates soybean lines for processing characteristics and yield such as soy milk, tofu as well as protein and oil content.

During the late eighties Jim Shearl, former Illinois Crop Improvement Manager, observed the evolving interest in the concept of identity preservation. The food and feed industries along with the seed industry saw the potential of using corn, soybean and other crops to develop new products by maintaining the identity of specific hybrids and varieties. At the same time commodity groups such as the National Corn Growers Association and the American Soybean Association were looking for new markets for their respective products.

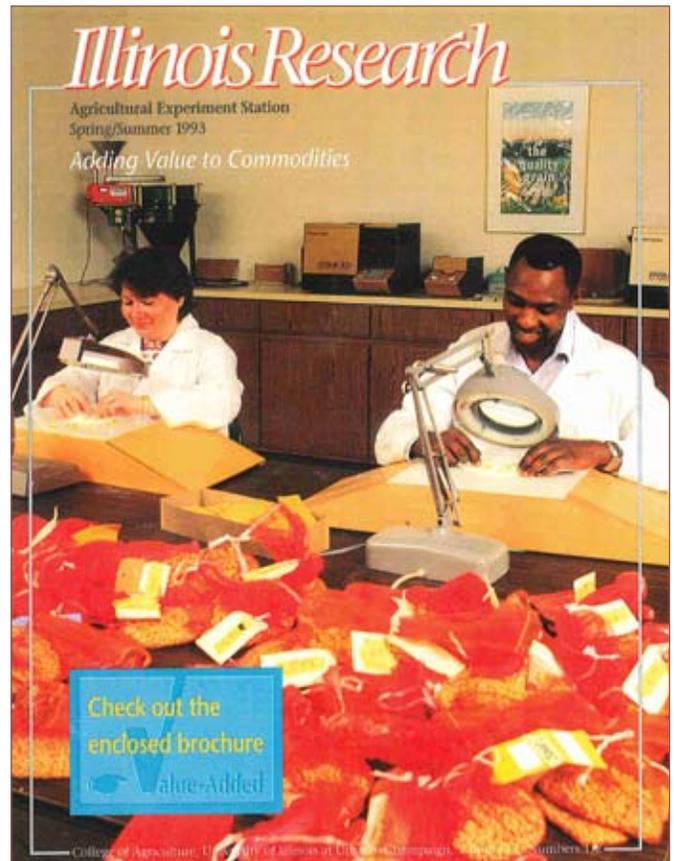
Also during the late eighties, the University of Illinois was fully engaged in utilization work as demonstrated through its biotechnology and agricultural engineering efforts at the National Biotech Center, National Soybean Research Laboratories and the departments of ag engineering and ag economics. The key figures at the University that helped with the genesis of the Identity Preserved Laboratory

included Dr. Donald Holt, Director of the Ag Experiment Station and Dr. John Campbell, Dean of the College of Agriculture at the University of Illinois. The incubator facility on the south farm for technology transfer, where the Identity Preserved Grain Lab got its start, was one of Holt' and Campbell's projects.

Dr.'s Marvin Paulsen, Steve Eckhoff and Lowell Hill helped elucidate the role of such a grain lab through their work on grain utilization and the goals of the corn and soybean commodity groups. With board approval, Jim Shearl and Dr. Holt submitted a grant application to the Illinois Department of Commerce and Community Affairs. The money request was for the latest in grain analysis. Near Infrared reflectance or NIR gave Illinois Crop Improvement its start in supporting the Identity Preserved Grain industry.

Ruth Sinn was the first lab manager while the lab was housed in one room at the incubator building on the U of I's South Farm. Dr. Steve Mbuvi began with the lab in 1991 after working with Dr.'s Paulsen, Eckhoff and Hill. Under Steve's leadership the number of offerings from the lab expanded and the database supporting the protein and oil analyzers became quite extensive. This plethora of data helped the lab move

from analyzing ground samples to analyzing whole grain samples. The lab also developed more tests that both processors and breeders were interested in. Another breakthrough was the development of small batch tofu testing reducing the amount of soy needed for testing from 135 kilograms (5 bushels) to a few hundred grams. With the development of new tests and a new direction more and more non-seedsmen came to know the Illinois Crop Improvement Association and the concept of Identity Preservation for the development of improved products, feeds and foods. So get ready to wish the Identity Preserved Grain Lab a Happy Birthday in 2018.



Ruth Sinn and Dr. Steve Mbuvi analyzing corn for stress cracks



Delivering Success

At the time of this writing Hurricane Maria has passed Puerto Rico. All of the staff and employees are okay. Damage from winds and rains were less than expected. We expect to be back to normal operations in the coming weeks. Hurricane Maria was close on the heels of hurricane Irma. Irma affected the north side and the farm received a few inches of rain with power being restored within 2 days of the storm. Maria affected the entire island. Illinois Crop Improvement does everything it can to mitigate weather factors by maintaining proper farm drainage, securing buildings with cabling and maintaining a large backup generator for irrigation. While we cannot prevent weather from happening we also don't let weather just happen. We are stewards of your seed in every sense of the word stewardship.



The Illinois Crop Improvement Winter Farm in Puerto Rico is dedicated to providing you with what you need to succeed in your business. Management and staff show this by focusing on our two main deliverables – Seed and Data.

The performance of our two main deliverables, seed and data, continue to prove that our services are more than competitive when you calculate the quality and quantity that are returned to you. Last season's North

American customers were very pleased with the results of their projects and I attribute this to the dedication and hard work of our staff. Our people make the difference through their attention to detail and their understanding of the customer's goals. This attention along with other improvements and an eye towards innovation shows Illinois Crop's commitment to the seed industry. Our Winter Farm team is looking forward to another successful year of delivering the seed and data you need to succeed.



We would also like to let our customers know that the footprint of the farm is changing. With the industry looking inward due to upcoming acquisitions and mergers along with decreased regulated plantings, lessening the need for rotational ground, we were left with a land surplus. For those of you who visit the island, or know some of the locals, it will look like Illinois Crop is growing, or going, bananas. This is a tongue in cheek statement as the Potala Property along PR Highway 1 is expected to be producing bananas in the near future. This is a private farmer as Illinois Crop does not compete with local farmers and producers. We would also like to mention that we have invested in netting that will now allow us to offer hybrid sunflower production. Illinois Crop also has experience with Broomcorn, Cotton, Cowpea,

Drybean, Kenaf, Pearl Millet, Peas, Popcorn, Spring Grains as well as our main crops Corn, Sunflower, Soybean, Sorghum and Peanut. Spread the word that we work with a wide range of plant breeders and seed producers from around the corner and around the world.

If you are interested in receiving our new e-update, email newsletter, dedicated to the Puerto Rico Winter farm please send an email to Heather Stone at hstone@ilcrop.com. For the latest on what is happening at the farm, how the season is progressing, and what is important to the Puerto Rico seed industry subscribe today!





Illinois Seed Trade Assn

by Pat Foley, President • patrick.foley@syngenta.com

ISTA Is Your Representative

As your new ISTA Board President, I would like to take a moment to introduce myself to those that I may not have had the pleasure of meeting yet. I've been with Syngenta for 23 years and currently work for Syngenta Seedcare. Though I reside in Iowa, Illinois has been in my sales territory for many years. My wife Jill and I just celebrated 30 years of marriage last month, and we have three daughters. I've served on the board for six years, and have enjoyed the many relationships and experiences during this time.

During the last several weeks the news has been filled with the devastation of hurricanes that have hit the Southern US. As unpredictable as the Illinois weather can be at times, I believe we are blessed not having to endure what the residents of Texas, Florida, and Puerto Rico are currently going through. Our harvest weather looks favorable over the next couple of months, which is always a plus. Please be safe, and don't take unnecessary risks during the harvest season. There is always tomorrow, to get done what we didn't today.

Since its formation 85 years ago, the Illinois Seed Trade Association has supported and represented the interests of seed companies in Illinois. Below is a list of industry Bills we are currently monitoring:

Corn as a State Grain

Public Act 100-109 was signed into law designating Corn as the official state grain of Illinois. Effective January 1, 2018

Pollinators Act

Saving Illinois Pollinators Act HB613 was first read in January of 2017. This bill asks that beginning 9 months after the effective date of the Act, it shall be unlawful to apply neonicotinoid insecticides in any other outdoor residential settings, including landscaping, ornamental, or other outdoor applications in this State. Establishes exemptions to the prohibitions. Provides that the Department of Agriculture shall, within 6 months after the effective date of the Act, adopt rules further defining and implementing specified provisions of the Act. Provides that the Department shall, within one year after the effective date of this Act, issue a draft report evaluating whether clear, peer-reviewed, published scientific evidence exists that outdoor applications of these insecticides are safe for honey bees, other pollinators, other beneficial insects, the broader environment, and human health. HB613 was referred to the Rules Committee on March 31, 2017. No further actions have been made.

Genetically Engineered Food

Senate Bill 627 was referred to the Assignment Committee upon its introduction on January 25, 2017. No further action has been made. This Bill would create the Genetically Engineered Food Right To Know Act. Provides that all foods containing genetically engineered material or produced with genetically engineered material must be clearly marked with a label placed in a conspicuous place that indicates that the food contains genetically engineered material or was produced with a genetically engineered material. Provides the specific language to be included on the label. Provides that the Department of Public Health may adopt rules necessary for the implementation of the Act.

Industrial Hemp Act

The Industrial Hemp Act (SB1294) had a lot of activity in the few months following its introduction in February 2017 but has since been waiting after

Article continued on next page

2017-2018 ISTA Board of Directors



L to R: Josh Wilken, Pro Harvest Seeds; Greg Smith, Hubner Industries; Richard Denhart, Executive Secretary; Pat Foley, Syngenta Seedcare; Aaron Collins, Remington Seeds; Mark Puzey, Central Illinois Production; Kevin (KJ) Johnson, IL Fertilizer & Chemical Company
Absent: Jeff Williams, Monsanto



Illinois Seed News Continued....

IL-IN Seed Conditioning Workshop

The 32nd Annual IL-IN Seed Conditioning Workshop will be held March 14th, 2018 at the I Hotel and Conference Center in Champaign, Illinois.

We are excited about the workshop, the agenda and our new location. The draft agenda includes our traditional seed conditioning basics with the theme of "getting the most out of your seed-plant." Several speakers will talk about seed treatment, products such as Evicta and NemaStrike, color sorters, and safety issues in particular PPE for treater operators and staff. The workshop will also include topics covering existing equipment and equipment you may see in the future as well as a session on "How a Dryer Works" that includes a segment on retrofitting options, keeping with our theme of getting the most out of your seed-plant.

On the forefront of technology optical sorters for husking beds will be a new topic. Then on the testing side, laboratory staff will update you on what is being seen this season for Illinois and Indiana. By March we should know more about what impact, if any, dicamba drift has had on seed production.

Rounding out the seed testing topics will be Don Robison from the Office of the Indiana State Chemist with labeling issues ranging from the good to the bad and perhaps the ugly.

And what seed meeting would be complete without covering Palmer amaranth? Diane Plewa from the University of Illinois Plant clinic will talk about the DNA seed testing methods available for determining if pigweed seeds are in fact Palmer amaranth along with options for determining herbicide resistance in pigweed species.

If you have any questions or want to make sure that you are on the mailing list to receive registration information for this meeting, contact Heather Stone at 217.359.4053 or hstone@ilcrop.com. In the meantime, save the date of **March 14th, 2018**, for the 32nd Annual IL-IN Seed Conditioning Workshop at the I Hotel and Conference Center just south of the University of Illinois main campus.

ISTA Is Your Representative - continued from page 6

being referred to the Rules Committee in July of this year. This act has gone through a couple amendments but the basic Bill provides that any person desiring to grow, process, cultivate, harvest, process, possess, sell, or purchase industrial hemp or industrial hemp related products must be licensed by the Department of Agriculture.

We will continue to keep you up to date on the progression of these and any other bills that are of interest to our industry.

With the current slump in the Ag economy, I would like to thank our members for their continued support of the organization, and those that have contributed to the legislative fund. I know things are a bit rough right now, but only through your support can ISTA continue to be your voice on issues directly effecting the seed industry in Illinois now and into the future. If you have any questions or suggestions for the Illinois Seed Trade Association you may contact Richard Denhart, Executive Secretary at rdenhart_ista@ilcrop.com, or myself at patrick.foley@syngenta.com.

Seed Sampling & Sample Size - continued from page 2

in size to those crops, 150 grams or approximately 5 ounces is needed for testing. For crops such as proso millet, sudangrass, or seeds similar to those seeds, 500 grams is needed for testing. Crops in the cereal family, vetches, sorghums, corn, soybeans and other crops of similar size, 1000 grams or approximately 2 pounds are needed for testing. For corn seed that is for OECD or Export into Canada, a minimum of 1500 grams should be sent in for testing. Vegetable and Flower seed for germination only should have at least 400 seeds for testing, preferably 800 seeds per sample. If the vegetable and flower seed need purity testing, the minimum working weights for some of the crops are listed in the AOSA Rules for Testing Seeds. Please contact me and I can help you determine how much seed to submit. Seeds that are coated or encrusted require a larger sample to conduct a purity exam due to the amount of coating. Please contact me if you have any questions on testing coated seed.

For more information on shipping your seed, see Field Services Director, Matt Raymond's article on page 3.

Should you have any questions regarding seed testing or seed quality issues please contact me at the Illinois Crop office. Email Steve Beals at sbeals@ilcrop.com, or call 217.359.4053.



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