

University Salt Tolerant Sod Research Project Underway

Road salt has been used for many years across Minnesota and other northern regions to keep streets and highways ice free. However, road salt has been found to have negative environmental impacts including making it difficult to establish vegetation. There is a great need for salt tolerant grasses that can survive along roadsides in Minnesota and surrounding states. Research is required to identify species and seed varieties suitable for these harsh conditions.

In January, the Local Road Resource Board (LRRB) announced that it would fund a research proposal from Dr. Eric Watkins, University of Minnesota turf grass researcher. The project is focused on identifying turf grass types and varieties for sod mixtures for use in salt and drought-affected sites.

Dr. Watkins explained that current Minnesota Department of Transportation (Mn/DOT) recommendations for salt-resistant sod are in need of evaluation and a little research on tolerant seed mixtures has been done around the country, especially outside of controlled laboratory environments. Effective salt tolerance studies must be conducted under roadside conditions where salt is applied and the other stresses of winter are occurring. He explained that, because new cultivars are frequently released, most of the research that has been performed is now out-of-date.

This three year project consists of three primary objectives. The first

will determine the most salt tolerant cultivars within several turf grass species, in multiple roadside environments (including shade). The University of Minnesota research team that includes graduate student, Joshua Friell, has seeded several research plots chosen due to their known exposure to road salt. The plots are located in Roseville, Minneapolis, Albertville and on the St. Paul campus.

The second objective will be to evaluate several mixtures in both roadside

salt tolerance trials and on-farm sod evaluations using the top-performing cultivars from objective one. The third objective will quantify water use of the mixtures so that the environmental benefits of salt-tolerant turf grass mixtures, can be communicated to users and stakeholders.

This research will benefit Mn/DOT and local municipalities by presenting them with the best possible mixture of salt-tolerant grass species based on currently available cultivars and unbiased research results. A well established salt tolerant turf, will be beneficial both environmentally (fewer inputs, less need to re-establish, reduced erosion, higher quality storm water runoff) and economically (time and money savings to re-establish failed projects, reduced inputs, economic benefits for the sod industry, etc.).

Sod grown from these seed mixes will be offered to buyers under the new Sod Quality Assurance Program that was developed through a collaborative effort of Mn/DOT, the University of Minnesota, the Minnesota Turf Association and MCIA.



Andrew Hollman – U of M researcher, seeded plots along Larpenteur Ave in Roseville. Picture by Adam Popenhagen, Minnesota Department of Transportation

In this Issue...

Annual Meeting Information	Page 2
Organic Corner - Michelle Menken	Page 3
President's Corner - Ben Lang	Page 3
Sampling & Testing Procedures - Stephen Malone.....	Page 4
2010 State Fair Certified Seed Show Results	Page 5
Chairman's View - James Hunzeker	Page 5

MCIA Annual Meeting Information

Annual Meeting Notice

A Wheat Breeding Roundtable will be a focus of the 2011 Annual Meeting, which will take place **January 10-11, 2011**, at the Shooting Star Casino in Mahanomen, MN. Mark your calendars and plan to attend! Contact Ben Lang at MCIA if you have agenda items that should be addressed at the Annual Meeting.

Early Call for Resolutions

A draft of any resolution to be considered by the MCIA Legislative and Public Affairs Committee and forwarded to the floor of the annual meeting should be received by MCIA office 14 days prior to the meeting.

Award Nominations Open

Do you know someone who should be recognized for their outstanding service to MCIA, the seed industry, or their community? Nominations are open for the following awards that will be presented at the MCIA annual meeting January 10-11, 2011 in Mahanomen, MN. The award for Achievement in Crop Improvement acknowledges exemplary service through dedication to and support of the seed industry as well as involvement in the community. Premier Seedsman recognizes individuals or partners active in the production and promotion of quality seed. Honorary Premier Seedsman recognizes specific service to the seed industry by individuals that are not directly involved in a seed business. If you wish to nominate a candidate or would like a copy of the award guidelines, please contact the MCIA office at 1-800-510-6242. The deadline is November 15, 2010.

Board of Directors Nominations

Nominations are open for the MCIA Board of Directors. If you are interested in serving on the Board or would like to nominate someone, please contact MCIA or email Ben Lang at ben.lang@mncia.org. The following districts are open - Cal Spronk, District 6, Brent Benike, District 1, David Boehm, Related Industry and Rick Brandenburger, District 3. Cal has served two terms and is not eligible for re-election. Send all nominations to: MCIA, 1900 Hendon Avenue, St. Paul, MN 55108. All nominations will be forwarded to the nomination committee.

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I certify that the statements made above are correct and complete.

- Janet Daninger

MCIA Annual Meeting

January 10 - 11, 2011

Shooting Star Casino
Mahanomen, Minnesota





Organic Corner

Michelle Menken, Organic Coordinator

Is my certificate still valid?

Organic Certificates are valid until they are surrendered, suspended, or revoked. They are issued yearly to show that the certified party has complied with the requirement to apply and be inspected annually.

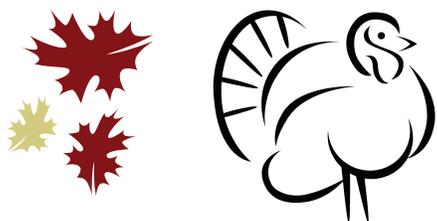
For processors and handlers, your certificate should always reflect what is being processed and sold. You must contact MCIA before adding new products or processes. You can do this at any time during the year.

For producers, if you wish to harvest and sell a crop that was not on your previous year's certificate, contact MCIA. As long as the crop is listed in your renewal application or has been added to your organic system plan, we can issue a letter of good standing to give to your buyer.

During crop production season, we always process new applicants first since they cannot sell their crops as organic until they receive a certificate.

Please contact MCIA if you have any questions about your certification status or need to make changes to your organic system plan.

Happy Thanksgiving
from the
MCIA Staff



Since 1903

President's corner

Ben Lang, President/CEO

Changes in Seed Testing

We are all aware of the rapid change in technology and the positive impact it can have on how we live our lives and conduct business. This is especially true in agriculture where technology advances have profoundly changed the industry in recent years. Advances in plant breeding, equipment technologies, data management tools and communication devices occur so frequently that it is almost impossible to keep up. However, we must keep up or risk becoming obsolete and left behind by our industry.

An area of change that directly affects the seed industry is seed testing. Today, new testing technologies are being developed that will allow us to evaluate seed quality in ways that were previously impossible. Genetic testing methods are being developed that can be used to differentiate between crop varieties or to determine the presence of a specific gene or crop trait. These testing tools will require us to reconsider our standards for quality and acceptability in seed products.

Seed certifying agencies have traditionally relied on phenotypic (visual) characteristics to distinguish between crop types and varieties when certifying seed. It has historically been an effective system to preserve the varietal identity and purity of crop varieties throughout the seed production process. However, there have always been challenges for certifiers when attempting to distinguish between crop varieties where there are few (or no) visually distinguishing characteristics. For these situations, certifiers have attempted to utilize specialized seed tests, to determine the certification status. Unfortunately, tests were not available for some crop types.

Now, electrophoresis and PCR testing are being utilized by seed certifying

agencies in some states to confirm varietal identity and purity. Several states require herbicide tolerance testing for recently released varieties to meet certification requirements. New genetic testing methods for distinguishing perennial ryegrass from annual ryegrass have also been proposed.

The Association of Official Seed Analysts (AOSA) has begun to put in place a process for reviewing genetic testing methods. AOSA's involvement is critical as their testing methods are utilized in seed regulatory and certification programs.

Should these new seed testing tools be utilized in seed certification? This question was discussed in great length at the recent meeting of the Association of Official Seed Certifying Agencies (AOSCA). The move toward greater reliance on genetic testing methods is a departure from the traditional process used to certify seed. However many questions remain. Which methods are accurate and reliable? What will it cost to perform these tests? Will the testing methods be available to regulatory and certification laboratories? How will the adoption of these methods impact seed producers and buyers?

Despite the questions and the challenges these testing methods may present to seed certification programs, it is important that we consider the great potential benefits these methods can have for seed buyers and sellers. MCIA, as a seed certifying agency, needs to consider how to best utilize new testing technologies in ways that will result in more accurate and timely certification decisions. Being an active participant in technology advancements will help achieve our goal of enhancing value and improving marketability.

Standard Sampling and Testing Procedures in Seed Regulation

By Stephen Malone, Minnesota Department of Agriculture

Employing consistent standard methods for seed sampling and testing is critical to an effective regulatory program. Without a representative sample and strict protocols for testing seeds, the accuracy of sample reports and the ability to consistently and evenhandedly enforce compliance is greatly compromised. The Seed Regulatory Program, under the Seed & Noxious Weed Unit, relies on two main procedural guides to ensure the integrity of official seed sample results and assignment of any needed corrective actions.

Sampling Protocols

Seed samples are taken according to the guidelines developed by the Association of American Seed Control Officials (AASCO) (www.seedcontrol.org). The AASCO Handbook on Seed Sampling was written by the association to give detailed instructions to seed samplers on how to:

- sample seed in various sizes and types of containers such as bulk bins, mini-bulk containers, standard 50-lb. bags,
- sample smaller packaging for vegetables, flowers, grass seed, and even convenience products such as roll-out seed mats.

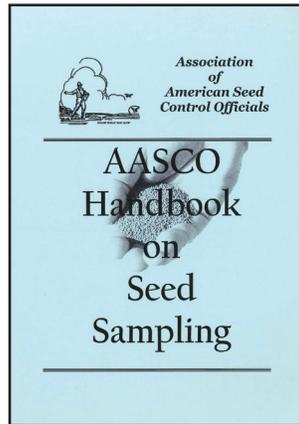
This handbook describes:

- the proper kind and size of probe to use for the seed size,
- the proper method for inserting the probe into the bag, and
- the number of probe samples that need to be drawn to obtain a representative sample for the lot.

If a probe cannot be used, a different hand-sampling procedure is recommended with examples given for sampling certain mixtures or seed with prominent appendages such as awns or hairs.

For seed in small packets, the official sampling method requires purchase of enough seed packets to provide the lab with at least 400 seeds for germination testing.

When an inspector encounters circumstances where the official methods cannot be used, they are required to describe the necessary alteration on the sample collection report. This information can then be considered when determining whether label claims are within tolerance. For example, many bulk bins have limited points that can be safely accessed so it may not be possible to insert a probe in all the desired directions.



International Recognition

The handbook is utilized by seed regulatory programs nationwide and is recognized in the Federal Accredited Seed Sampling Program. This program is being set up to enable seed companies or firms that provide seed sampling services to be recognized as a USDA Process Verified Program, USDA Accredited Seed Sampler. Official samples drawn by qualified inspectors using these methods are accepted by most countries in the international seed trade.

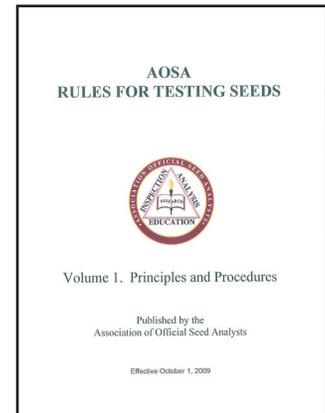
AASCO has also developed a seed sampler training course based on the handbook and is in the process of approving trainers who will be able to provide this training to seed companies. In Minnesota, this course is used to train county agricultural inspectors, followed by hands-on instruction from Seed & Noxious Weed Unit field staff, enabling staff to draw official samples.

Seed Testing Rules

The manual for official seed testing

procedures, called the AOSA Rules for Testing Seeds, was developed and is maintained by the Association of Official Seed Analysts (AOSA) (www.aosaseed.org). The rules describe the accepted standard protocols and tolerances for conducting purity, germination, and other quality tests for many seed kinds to promote consistency from lab to lab.

AOSA members include official state, federal, and university seed laboratories across the United States and Canada. Seed analysts who work in AOSA member labs undergo an extensive specialized training and certification process to acquire AOSA Certified Seed Analyst status, so that their results can be recognized anywhere the AOSA rules are accepted. The three Minnesota State Seed Laboratory staff, located at 601 Robert Street in St. Paul, strictly follows these standardized seed test protocols.



The rules are refined and new procedures added for current seed kinds and for new kinds only after a rigorous process that involves submission of the detailed methodology involved, verification of the protocol by other labs through a referee process, followed by a review and vote by the AOSA membership. It usually takes several years of testing for a new rule to be adopted into the rules. When a lab encounters a kind for which no rule exists, they will test the seed according to the procedures established for the most closely related kind. This is often the beginning of the development of a new protocol that may eventually become a rule.



To the left, Retirees, Paul Mickelson, MCI and Dr. Roy Thompson, U of MN, enjoy visiting with folks at the 2010 Minnesota State Fair. MCI provides support to the State Fair Certified Seed Show.

2010 MN State Fair Certified Seed Show Results

Thank you to all of those who entered this year's Minnesota State Fair.

The champion results are as follows:

Champion Barley Sample:
Wigen Seed Farm, Litchfield
(Grower - Russell Peterson)

Champion Oats Sample:
Falk's Seed Farm, Murdock
(Grower - Jim Falk)

Champion Wheat Sample:
Falk's Seed Farm, Murdock
(Grower - Jim Falk)

Champion Soybean Sample:
Falk's Seed Farm, Murdock
(Grower - Justin Moore)

Champion Grass Sample:
Norfarm Seeds Inc., Roseau
(Grower - Virgil Gryskiewicz)



Chairman's View

James Hunzeker, Board Chair

From Wikipedia search "seed", did you know that:

- The oldest viable carbon-14-dated seed that has grown into a plant was a Judean date palm seed about 2,000 years old, recovered from excavations at Herod the Great's palace on Masada in Israel. It was germinated in 2005.^[45]
- The largest seed is produced by the coco de mer, or "double coconut palm", *Lodoicea maldivica*. The entire fruit may weigh up to 23 kilograms (50 pounds) and usually contains a single seed.^[46]
- The earliest fossil seeds are around 365 million years old from the Late Devonian of West Virginia. The seeds are preserved immature ovules of the plant *Elkinsia polymorpha*.[!]

This is from the "records" section of the search. Much more interesting reading if you take the time.

One of my life philosophies is that it is tough to beat someone at their own game. If you think you can make a

pull behind trailer (apples to apples) cheaper than you can buy one, you need to rethink this a bit.

I am always amazed at the ingenuity of Americans whether it is specialization of manufacturing equipment in the medical field, productivity software for food processors, or hydrostatic hydraulic systems for earth moving equipment. The list goes on and on. One quickly realizes that the folks in the business know what they're doing.

Although I've been in the Native Seed Business only since 1983 and after reading this Wikipedia document on seed, I realized that our seed industry is just as technical, complex, intricate, and challenging as any other in the world. And on top of that, we work with living matter (hopefully) and have to deal with whatever Mother Nature sends us.

After September rains, Mother Nature has been kind this harvest season. As you wrap up another season be safe and Happy Thanksgiving.



SAVE THE DATE!
 The MCIA Annual Meeting will be January 10-11, 2011 at the Shooting Star Casino Hotel in Mahnommen, MN

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MISSION STATEMENT

Minnesota Crop Improvement Association is an organization dedicated to improving the productivity, profitability and competitive position of producers, processors, and distributors of agricultural products by providing services to enable them to provide high-quality products to Minnesota, the United States and the World.

Enhancing Value, Improving Marketability



Since 1903

CALENDAR

November

- 4..... MN Agri-Growth Council Annual Mtg, Minneapolis, MN
- 18..... MCIA Board Meeting, St. Paul, MN
- 21-22 Iowa Organic Conference, Ames, IA
- 25-26 Holiday - MCIA Office Closed

December

- 6-7 Western Corn Belt Conference for Organic Farmers, Sioux Falls, SD
- 7-10 ASTA Corn/Soybean/Sorghum Seed Research Conf & Expo, Chicago, IL
- 9..... Prairie Grains Conference, Grand Forks, ND
- 23-24 Holiday - MCIA Office Closed
- 31..... Holiday - MCIA Office Closed

January

- 10-11 MCIA Annual Meeting, Mahnommen, MN
- 14-15 Minnesota Organic Conference, St. Cloud, MN
- 17..... Holiday - MCIA Office Closed
- 17-18 MN Ag Expo - Minnesota Soybean Growers Association and the Corn Growers Association Annual Meetings, Morton, MN