



The North Dakota Seed Journal

MARCH 2013

Newsletter of the North Dakota State Seed Department

Inside

- 1 New Production Problems Identified by Variety ID testing
- 2 From the Commissioner's Desk
- 2 NDSSD Collects Research Fees
- 3 Schrage Honored
- 3 2013 Premier Seed Grower Award
- 3 2013 Approved Facility Inspections
- 4 Field Inspector Needed for McLean County
- 4 Facility Manuals Updated
- 4 Labeling Violations are Avoidable
- 5 Use Your Smart Phone to Access Data
- 5 *Botrytis* Testing Now Offered For Lentil Seed
- 5 Inside the Seed Lab
- 6 Calendar

New Production Problems Identified by Variety ID testing

Steve Sebesta, Deputy Commissioner

Since the Seed Department initiated variety ID testing in 2010, all of the seed lots that failed the variety ID test were due to errors in sample submission, caused by either unintentional switches of samples or misidentification of bins. Either way, the variety ID test caught the errors and in every case we were able to resolve the problem through cooperation with the labelers resulting in seed that was correctly labeled. These problems led us to develop the adhesive bin labels to assist labelers with proper identification of their certified seed. According to North Dakota certification regulations, all certified seed in storage, whether unconditioned or conditioned, must be identified at all times. Bin labels are now sent with bulk certificates for each certified lot.

However, there were two independent events this year that seed growers and conditioners need to be aware of to help prevent the problem from recurring. On two different occasions, two samples of wheat failed the variety ID tests. When this happens we usually think that the samples were switched at some time. However, in both cases we learned that both seed growers actually switched seed at planting time last spring. One grower used two different trucks to pick up his seed, but the trucks went to different fields than he had planned for those varieties. The second grower used one truck but planted the wrong seed when he went to the field. You should be asking yourself now whether this could happen to you.

In each case the phenotypes of the varieties were so similar that it would be impossible for an inspector to determine the varieties had been switched. In the first case, the objective descriptions of each variety show that head characteristics are identical. In the second case, the two varieties differ in only one characteristic, but they are similar enough that even that difference can be difficult to distinguish in the field. Compounding the problem is the fact that all the varieties exhibit a range of expression of the traits we once relied on in a field inspection. Unfortunately, varieties are not homogeneous as they are described.

The point is, certified seed production requires commitment by everyone involved to ensure the identity and purity of certified seed is protected, from the time seed stock is picked up at the retailer (or from your own bins), through planting, harvesting, storage, conditioning and sampling.

When a seed lot is certified, it means that all the processes in place to ensure the varietal identity and purity of the seed have been accomplished and the seed meets the standards for certification. In North Dakota, the final check in the system for spring wheat, barley and field peas includes a genetic test for variety identity.

We encourage seed growers, conditioners, and retailers to evaluate your processes, develop standard operating procedures for handling seed and train your employees. Certified seed is a value-added product and one careless act can ruin a year's worth of effort.

North Dakota State

NDSSD

Seed Department

The North Dakota Seed Journal is published and edited by the Seed Department, State of North Dakota, under the provisions of Chap. 258, S.L. 1931, as administrative and instrumental matter required for effective transaction of the Department's business and for properly fostering the general welfare of the seed industry in the state.

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From the Commissioner's Desk

This edition of the Seed Journal is when we commonly review legislative activities. The purpose is to discuss issues relevant to seed and/or agriculture that have taken bill form in the session. This only happens once every two years, in conjunction with North Dakota's biennial legislative session. This will be a really short review.

With bill introduction deadlines past, there are 843 bills and 47 resolutions entered for consideration by the 2013 legislative assembly. 800-900 bills is a fairly common range for recent sessions. Of this total, there are 29 bills that have been identified by Legislative Council (the research and legal arm of the legislature) as being related to agriculture policy. Let me repeat, 29 bills. Twenty-nine.

For those who are interested, this is an extremely low number of measures related to our industry. The number of ag bills has declined over the past ten years, but this a shockingly low number. Ag committees may soon have so little work that they may be combined with another committee in the near future. This isn't unusual, it has happened in other agricultural states.

As with many other issues, money drives the discussion in agriculture too. The NDSU Agriculture budget (SB 2020) is not counted among the 29 bills mentioned, nor is the Department of Agriculture budget (HB 1009). Both are extremely important to agriculture in program and research terms, and have

Ken Bertsch..... State Seed Commissioner
Steve Sebesta..... Deputy Seed Commissioner
Willem Schrage..... Director, Potato Program
Joe Magnusson..... Field Seed Program Manager
Jeanna Mueller..... Seed Laboratory Manager
Jeff Prischmann... Diagnostic Laboratory Manager
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Mike Oosterwijk Potato Program Supervisor

really become the flagship issues for the industry in any given session.

As for the seed industry and Seed Department, SB 2026 is the only bill on the list. SB 2026 is the final installment of the effort to rewrite Seed Department century code. If you recall, we worked with and passed a bill during the 2011 session that modernized the code relating to Department administration, seed certification programs and wholesale potato dealers. SB 2026 finishes the process by rewriting Chapters 4-10 and 4-26, which govern potato certification and potato control area functions. Chapter rewrites are both laborious and nondescript. The objective is to modernize and reorganize century code in a way that fits agriculture and agency operations, which is the laborious part. There is seldom (if ever) any substantive change in policy, which is the nondescript part.

The Seed Department used to have a budget bill during each session, but this has also changed. We became a "con-

tinuing appropriations" agency by virtue of language in last session's chapter rewrite, meaning we are granted authority to manage our revenues and expenditures rather than seeking legislative authority to expend funds through the legislative appropriations process. We now simply provide a report to the Appropriations Committees on activities and budget of the Department, in much the same way that commodity groups report to the Agriculture Committees. We can provide a copy of the report if you would like to review it.

For someone used to doing a fair amount of legislative work, the lack of bills is akin to withdrawal. On the bright side, few bills may indicate that things are going in the right direction...and offers less opportunity for legislative "action". Perhaps this logic applies to all of agriculture...food for thought.

Best wishes for a safe and profitable spring planting and marketing season.



NDSSD Collects Research Fees

By cooperative agreements, the Seed Department collects research fees on varieties owned by Busch Agricultural Resources, Montana State University, NDSU Research Foundation, South Dakota State University and the University of Minnesota. These varieties are protected by the Plant Variety Protection Act and must be conditioned, final certified and labeled by the NDSSD before they can be sold as seed.

There is a misconception that if a field has been inspected, the seed can be sold without completing final certification, even if the royalties are paid. Not only is that false, but it is illegal.

All seed must be labeled by the applicant for field inspection, an approved conditioner or bulk retailer before it can be sold. Unconditioned, field-inspected seed cannot be sold to another producer. Unconditioned seed may only be sold to an approved seed conditioner or bulk retailer for final certification and labeling in their name.

The initial labeler is always responsible for the payment of research fees, regardless of any side agreements they may have with other parties (seed producer or approved retailer). Any side agreements related to the payment of research fees are solely between those two parties and the initial labeler is still responsible for remitting payment to the Seed Department.

The initial labeler is the person listed on the Sampler's Report when seed is submitted for final certification. The initial labeler will be billed by the Seed Department in July for the research fees owed. Labelers are only required to pay fees for what is sold as planting seed.



Schrage Honored

Willem Schrage, NDSSD Potato Program Director, was presented the National Potato Council's Meritorious Service Award in January.

Schrage was born and educated in the Netherlands. His career in the potato industry began at the International Potato Centers in Peru, Turkey and Tunisia. In Tunisia, Willem was coordinator of the National Seed Potato Program until 1982.

In 1982 Schrage became a seed potato specialist for the New Brunswick Department of Agriculture. There, he conducted potato research and extension activities, and managed the province's seed potato program. In 1985 he became head of the New Brunswick Potato Agency, the provincial potato marketing board.

Schrage moved to the U.S. in 1994 where he managed the Minnesota Potato Seed Program until 2007.

Schrage has managed the North Dakota Seed Potato Certification Program, the second largest seed certification program in the U.S. since 2007. He works closely with the USDA managing shipping point inspection programs. Schrage has also supervised the introduction of USDA Good Handling/Good Agricultural Practices (GHP/GAP) food safety audit services in North Dakota. He has facilitated the training of department staff in becoming licensed auditors by the USDA, thereby assisting the North Dakota commercial potato industry in complying with food safety requirements of the processing industry.

Schrage continues to take an active role in the Potato Associates of America (PAA), the National Potato Council (NPC) and the United Nations Economic Commission for Europe (UNECE) on seed certification and international regulatory standardization issues.

2013 Premier Seed Grower Award

Brian O'Toole, Crystal, ND, received the Premier Seed Grower Award from the ND Crop Improvement and Seed Association at its annual meeting recently. The award recognizes individuals who have successfully produced registered or certified seed for several years and have significantly contributed to the certified seed industry.

O'Toole farms with his cousin and they produce hard red spring wheat, winter wheat, and several varieties of wheat seed, navy beans, black beans, pinto beans, soybeans, corn and sugar beets. He grew up farming and after attending the State School of Science, he began his own farming career. In 1996, he took over the small seed conditioning business that his father started.

Since then, the business has expanded considerably, and now conditions more than 250,000 bushels of wheat and 150,000 bushels of soybeans annually. O'Toole credits his family, who are active in the business, with much of their success.

He has served on a number of state and county farm and commodity group boards including the ND Wheat Commission, Wheat Marketing Center, Agronomy Seed Farm Council, Pembina County Farm Bureau and Crystal Farmers Elevator Coop. He was chairman of SBARE Wheat Granting Committee, past president of the ND Crop Improvement and Seed Association, and president of T.E. O'Toole Farm Seed Co. O'Toole was recently elected secretary-treasurer of the U.S. Wheat Associates by the board of directors.



(L to R) Rebecca O'Toole, Frank and Allison Olimb and their son Gary, Brian, Sara, and Kelly O'Toole

2013 Approved Facility Inspections

Kyle Bednar, Field Seed Inspector I

The 2013 facility inspection season is behind us. Managers should have received the 2013 Approved Facility Permit in the mail along with a copy of the inspection report. Please display the permit and retain your copy of the plant inspection report. Managers need to review the inspection report even if the facility was approved because there may be areas noted in the report or comment section that need attention. Deficiencies commonly noted this year were the lack of correct sample labeling and storage for certified samples.

Seed samples — A two-pound sample of all certified seed shall be maintained for a minimum of one year after the final disposition of the seed lot. Samples shall be labeled with kind, lot number, variety and class. *If the conditioner is not the labeler, the conditioner shall provide the labeler a sample to be retained.* If you have any questions, please don't hesitate to call.

Field Inspector Needed for McLean County

The Seed Department is looking for a part-time field inspector for McLean County. The season is approximately six weeks, starting about the last week of June (depending on the season) until all assigned fields are completed, approximately mid-August.

Applicants must be self-motivated, detail-oriented and in physical condition to walk fields.

Classroom and field training will be provided, as well as a mentor. State vehicle and per diem are furnished. Applicants must have a valid driver's license.

Contact Galen Briese at 701-231-5440 for more information.

Facility Manuals Updated

Kyle Bednar, Field Seed Inspector I

Due to changes in state seed law and certification regulations, we have updated the Approved Facility Manuals. Regulatory inspectors will provide new manual pages when they arrive at your facility for 2013 seed sampling over the next few months. If you have any questions regarding the manual updates, please take the opportunity to visit with your inspector when they are at your facility or contact Kyle at the Seed Department.

Labeling Violations are Avoidable

Steve Sebesta, Deputy Commissioner

Over the last year there have been a number of seed labeling violations which have resulted in fines, so an overview of what seed laws mean to your business is probably warranted.

Whether you are a seed producer, bulk retailer or conditioner, **ALL seed must be properly labeled** before it can legally be offered for sale or sold. The exception to this is certified seed that has been inspected by an official certifying agency, and is eligible for final certification and sold to an approved conditioner or retailer who will complete final certification. That seed must be properly identified, but it does not have to have an official label. The responsibility for proper labeling rests with the grower or first distributor.

What's required by law?

Labeling actually relates to a process which is more than just affixing a label to a container of seed. Proper and legal labeling also involves retention of records and samples. All records pertaining to a lot of seed must be retained for three years after the final disposition of the lot. A file sample of each lot must be retained for one year after the final disposition of the lot. Records and samples must be available for inspection by the Seed Department upon request.

Common or certified seed – does it make a difference?

No, it does not matter whether the seed is common or certified. According to state seed law, all agricultural seed offered for sale or sold in this state for planting purposes must be labeled. Seed law also specifies the requirements of the label which include:

1. the lot number or other lot identification;
2. the state or country in which the seed was grown;
3. the percentage by weight of all weed seed;
4. the name of each restricted weed seed present and its rate of occurrence per pound if (a) in seeds of grasses

and small seeded legumes, the rate of occurrence exceeds thirteen seeds per pound or (b) in any other agricultural seeds, the rate of occurrence exceeds five seeds per pound;

5. the percentage by weight of any other agricultural seeds present;
6. the percentage by weight of inert matter;
7. the percentage of germination, exclusive of hard seed;
 - a. the percentage of hard seed, if applicable;
 - b. the month and year in which the percentages were determined;
8. the full name and address of the labeler.

Variety name required in North Dakota

In addition to any other label requirements specified by law, the label on each container of barley, canola, dry beans, durum, field peas, flax, oats, rye, soybeans, and wheat seed offered for sale or sold in North Dakota for planting purposes must include:

1. The kind of each agricultural seed;
2. The variety of each agricultural seed component constituting more than five percent of the whole; and
3. The percentage by weight of each agricultural seed component constituting more than five percent of the whole.

What about PVP or Title V varieties?

The 1994 amendments to the Plant Variety Protection Act require that all varieties protected after April 4, 1995 must be sold by variety name. And, if the variety is also protected by Title V of the Federal Seed Act, which specifies that the seed must be certified, then the seed must be certified by an official certifying agency before it can be advertised for sale, offered for sale, or sold. Once final certification is completed, legal labels will be provided by the certification agency. Protected varieties are identified in the Seed Directory.

If you have any questions about legally labeling seed, please call the office.



Use Your Smart Phone to Access Data

Have you ever been away from your office, vacationing in warm Mexico or in the tractor cab, and needed information about your fields or seed samples? Did you know that you can access your field inspection, lab results and certification status with your smart phone? Go to www.ndseed.com and select **Online data**. After entering your confidential account number and password you can easily determine the status of your field inspections, view results of lab tests and certified seed lots. If you don't have a password yet, call the department and set one up. It's a really easy way to stay on top of your business from wherever you are.



The Farmers Yield Initiative, or FYI, promotes legal seed trade, research, education, seed certification, and the enforcement of intellectual property rights authorized under the Plant Variety Protection Act (PVPA) and patent laws. The purpose of the initiative is to educate the public and encourage compliance with existing state and federal seed laws embodied in the PVPA and state seed certification regulations.

If you suspect illegal seed activity please consider submitting a strictly confidential tip to help put a stop to illegal seed trade. You need not identify yourself during the phone call. The caller can remain anonymous, and it is toll-free.

Phone completely confidential tips using the toll free number: **(877) 482-5907**

Email tips to: tips@farmersyieldinitiative.com

Mail tips to: Farmers Yield Initiative
PO Box 8850
Fayetteville, AR 72703

Botrytis Testing Now Offered For Lentil Seed

Jeff Prischmann, Diagnostic Lab Manager

Botrytis testing is now offered by the North Dakota State Seed Department Diagnostic Lab for lentils. In 2011, *Botrytis* or Gray Mold was reported in North Dakota according to the North Dakota State University Extension Service.

Botrytis is a seed-borne mold pathogen that can be found on a variety of crop species including pulse crops such as lentil. *Botrytis* can spread easily in infected fields and cause large areas of crop loss under the correct conditions. *Botrytis* is found in other pulse crop growing areas such as southern Canada. *Botrytis* causes lentil seed to become shrunken, shriveled, and stained.

Testing seed for *Botrytis* is an effective way for seed growers to monitor seed lots and aid in controlling the spread of the disease. Testing is conducted in a similar fashion as an *Ascochyta* test using a 500 seed sample. Results are reported as the percentage of infected seed found in 500 seed tested. The cost of this test is the same as an *Ascochyta* test for lentil (\$100 per sample). We also offer a fungal scan test on lentil for both *Botrytis* and *Ascochyta* for a reduced price of \$180 per sample. Samples submitted for testing should be representative of the seed lot.

A good reference source on *Botrytis* in lentil can be found from the North Dakota State University Extension Service (www.ag.ndsu.edu/CarringtonREC/agronomy-1/research-documents/plant-pathology/2011Lentil%20Botrytis.pdf).

The bottom line on any seed health test is to look at the results in relation to the crop and consider identifying alternate seed sources if the results are high. Most seed-borne diseases need optimum conditions to spread during the growing season. So, just because a pathogen is present in a sample doesn't necessarily mean that the disease will be found in the field next year. However, it is more likely that the disease will be present in the field the next year with increasing levels of seed infection. Please contact the department with any questions or comments.



Inside the Seed Lab

Jeanna Mueller, Seed Lab Manager

Although harvest last year was fast and furious along with short and sweet, it came with a price. We have noticed reduced germination of some field peas and soybeans. Further examination showed some abnormal seedlings due to internal, mechanical damage that we suspect is from the dry harvest season. These dry soybeans and field peas are very susceptible to damage during harvest or subsequent handling. We have even seen some of the germ tests in the low to mid 70's. Looking at the seed lots it is hard to tell the seed is damaged, that would be evident by numerous splits. Evidence of damage is detected on the seedling itself in the germination test.

On the positive side we have seen few disease issues with the small grains. Wheat is performing very well. In durum, we have seen a few scabby lots, but not many.

We have also noticed chemical damage on some spring wheat samples, with germination in some cases being decreased to the 70's. Remember, glyphosate is not labeled for wheat and barley in seed production. Not only does it reduce germination but it reduces seedling vigor.

Spring is coming fast so another season of change is in the air, hopefully with some moisture. As the new manager of the Seed Lab, please feel free to contact me with any questions you may have. I will do my best to answer them. I have many people I look up to and feel I have been trained by some of the most knowledgeable people there are in seed testing. I look forward to furthering the tradition of quality seed testing and customer service.

North Dakota State Seed Department

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NDSSD Calendar

- May 1** Field inspection applications due for grasses
- June 15** Field inspection applications due for all crops except soybeans, buckwheat and millet
- July 1** Log sheets and unused bulk certificates due
- July 15** Field inspection applications due for buckwheat and millet
- July 31** Labeling Fee Report due
- Aug. 1** Field inspection applications due for soybeans requiring single inspections
- Sept. 15** Research fees due