



The North Dakota Seed Journal

SEPTEMBER 2008

Newsletter of the North Dakota State Seed Department

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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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The Seed Potato Crop in North Dakota

Willem Schrage, Director, Potato Program

Seed Potatoes

The seed potato crop gives reason to be optimistic. People in some areas would have liked a bit more rain, but in general, rains have come, albeit sometimes not in sufficient quantities. However, timely rains have helped avoid the very negative consequences of a drought in the non-irrigated areas of the state. Second field inspections have been completed.

Virus Spread

Aphids are abundant in some areas and soybean aphids have been found in large numbers. Although soybean aphids are not considered a very efficient vector, when present in large numbers virus will spread. Some current season PVY infection has been noted. The saying that inoculum is the most important part of virus spread is proven correct again. Fields planted with lots that were inspected and found virus free in the winter test, have not shown any current season infection. Growers with low generation seed lots may consider killing vines as early as feasible. Please make sure to take the winter test samples as representatively as possible to avoid surprises next year.

Plant Quarantine Issues

The most recent developments in the North Dakota seed potato crop are the preparations for the soil test for potato cyst nematodes. According to an agreement between the USDA-APHIS and the Canadian Food Inspection Agency all fields must test negative for the nematode before any seed potatoes may be exported to the other country. Another reason to have seed potato soils tested is that in the event of a positive test result in the state, or several positive tests in the country, only potatoes from tested fields may be able to move following an investigation.

The USDA-APHIS, the ND Department of Agriculture and the Seed Department are sharing expertise and cooperating to complete the work most efficiently. APHIS is providing funding for the testing as well as identifying people, facilities and equipment to complete the sampling.

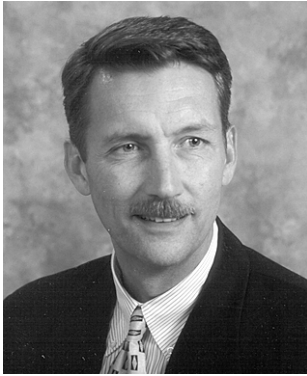
There are three components to the testing program:

- soil will be collected with mechanical samplers
- samples will be dried at the Grafton office
- analysis will be completed in Idaho

All seed potato growers have been contacted, by either mail, phone or e-mail. Many have returned their application forms to ND Department of Agriculture.

Staff

Following Bob Dietrich's retirement, Rudi Sass started as a full time potato inspector in the Red River Valley. We welcome Rudi (back).



From the Commissioner's Desk

Once again, my favorite time of the year approaches. Harvest has always been the one time when everything seems about right, and the hard work of the past year proved worthwhile. Even when the crop was less than hoped-for, the excitement of harvest dulled the pain a little. After being gone from the farm for nearly twenty years and now living/working in Fargo, it's still harvest that gets me going.

There may be a number of other things that contribute to the excitement of the season, even if my current harvest situation is confined to a long weekend on my brother's farm.

Our inspectors are out finishing field inspections for all crops: cereals are wrapping up about now (first week of August); row crops (including potatoes) will continue through September. It's always rewarding to see another good field inspection year finish, especially when acreages are fairly strong and stable. We anticipate completing inspections on more than 320,000 acres of field crops and about 16,500 acres of potatoes this year. Not spectacular, but solid. I suppose this can be considered "harvest" for our inspection programs.

Our summer Seed Commission meeting has passed, and we were fortunate

Ken Bertsch..... State Seed Commissioner
Steve Sebesta..... Deputy Seed Commissioner
Willem Schrage Director, Potato Program
Joe Magnusson..... Seed Regulatory Manager
Galen Briese..... Seed Certification Manager
Mark Hafdahl Seed Laboratory Manager
Jeff Prischmann..... Diagnostic Laboratory Manager
Kris Nicklay Administrative Officer
Mike Oosterwijk Potato Program Supervisor

to be able to report good financial and program results to our board of directors. I've pointed out in the past that North Dakota is unique in that the department inspects and tests all crops, serves as the regulatory agency, and is governed by a board made up of private citizens. FYI, this group is really good at serving the industry and agency. They know the seed industry, and the balance between what growers need and a fair price for the services we provide as a self-funded entity. Our commission understands boardmanship, their policy-making responsibility, and the administration-board relationship. I say this only to point out the joy of working for a group who provides solid guidance and then steps aside while we go to work. The summer commission meeting is chock full of financial, budget and operational topics, and is like the culmination of another year. I suppose these are "harvest" issues if you are an administrator.

In the meantime, another type of harvest approaches as the legislative session nears. Coming to the end of the legislative interim means the big

push is about to begin. After working for years as lobbyist, I always equated the legislative session to harvest and I still believe it's a good analogy. Much of the work of legislating is done before the session ever starts; it's a lot like planting and caring for a crop. Our prep-work is more extensive than normal, with an interim study of Seed Department chapters of state law ongoing. By the way, your input on this and any legislative issue is appreciated.

Harvest season is now much different than it used to be. Many of us who grew up and experienced the work and lifestyle firsthand still equate much of what we do to the farming cycle. But, despite the changes in circumstances, career, place or any other life situation, there is still nothing like the image, smell and feel of harvest to create excitement and a positive outlook on life.

Oh, and football season starts in a few weeks.

Have a safe and profitable harvest season

Website Revisions Completed

In December 2007, the Seed Department began the major task of redesigning our website. We are pleased to announce that the project was completed in June and we went live with the new site in July following ADA compliance checks. It was a major undertaking because every section required re-writing. No more "page under construction" in this version!

Our primary objectives in this project were to:

- provide information about the department and the services we offer, including field seed and potato certification, seed regulatory, diagnostic lab, seed lab, potato seedstocks.
- provide educational resources useful to the seed industry
- promote the production and usage of certified seed.

We believe we now have a product that accomplishes our objectives and will serve our customers needs. You are invited to view and bookmark our new website at www.ndseed.com and see for yourself. We would also appreciate any feedback you may have to help us provide any additional information you need.

Barley Variety Identification Testing

Jeff Prischmann, Diagnostic Lab Manager

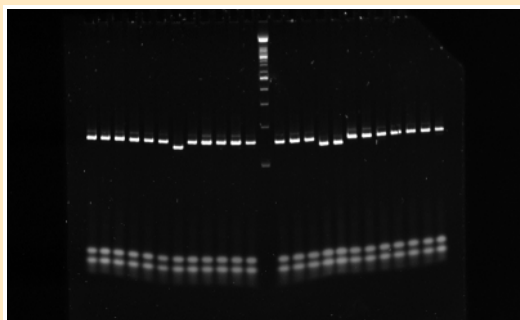
Malting barley is one crop that has strict industry requirements for specific quality parameters. These quality parameters tend to narrow the available germplasm base breeders use in developing new varieties. This inherent genetic similarity makes it difficult to distinguish varieties. Traditional seed protein tests using electrophoresis have been used on barley, but this test can not easily differentiate genetically similar varieties. As a result, beginning in 2004, the Diagnostic Lab at the North Dakota State Seed Department began conducting variety identification testing of barley using a DNA based test. This test uses PCR (polymerase chain reaction) in combination with specific barley markers that barley breeders and researchers have developed. PCR products are then visualized using gel electrophoresis.

The Diagnostic Lab is currently able to test for over 40 barley varieties including 2- and 6-row malting varieties and some feed type varieties. Samples tested include both seed and plant tissue sources.

Barley samples are first screened with a group of available barley markers to determine if differences are observed in comparison to control samples. This initial screening is usually conducted on a bulk seed sample. Once markers are identified that show differences between the sample and the control, individuals from the sample can be tested further to determine exact percentages of mixtures. This varietal purity test is usually conducted using DNA isolated from leaf tissue. This test allows the variety to be identified, and if a mixture is present in the sample, the percentage of the mixture. If the initial marker screen

is unable to identify any other varieties present, then the sample is likely to be highly pure.

Customers interested in this test must submit a 100 g sample and request a variety identification test. Depending upon the sample, an initial marker screen will be conducted to determine if any problems exist with the sample. If a problem is identified, then further testing would be required to determine mixtures and the identity of the mixture components. Any sample information the customer can provide the lab regarding the sample is important. This information helps narrow the possible varieties for the unknown sample and gives the lab a starting point. Information such as the suspected variety, 2- or 6-rowed, rachilla hair type, etc. are all important. Contact the department with any further questions on this test.



NDSSD Barley variety identification testing using individual barley plants of Tradition barley. Sample lane identification: Lanes 1-12 and 14-24 are samples of individual barley plants. Lanes 7, 17, and 18 are plants identified as another variety. Lane 25 is a Tradition control sample. Lane 13 is a 100 bp DNA ladder.

Unconditioned Carryover Reports due October 1

According to seed certification regulations, seed growers are required to submit an annual report of unconditioned seed produced the previous year in order to maintain eligibility of that seed for final certification.

Carryover certified seed does not need to be reported, however, a new sample must be submitted to the department for a new germination test to ensure it meets labeling requirements.

Conditioner and Retailer Applications due October 1

Applications for Approved Certified Seed Conditioners and Bulk Retailers were mailed to facility managers in August. Completed applications and the fee should be returned to the department by October 1. Facility inspections will begin the last part of October. At that time inspectors will review the requirements of the agreement with facility managers, approved samplers and any other employees that handle certified seed. As always, we appreciate your cooperation with the inspectors.

Pre-conditioned Seed Testing

North Dakota allows testing of pre-conditioned seed in order to determine whether a seed lot is suitable for conditioning and to hasten labeling after conditioning. However, only certain tests are permitted on pre-conditioned samples. These include germination testing and disease tests that are required for final certification. Growers may request new tests for labeling purposes following conditioning.

Pre-conditioned germination testing is not permitted for fragile crops such as field peas, dry beans and soybeans and must be conducted **after** conditioning to assure correctness of label claims.

Seed samples submitted for pre-conditioned testing must include the field application number with the sample. That number is found in the upper left corner of the Field Inspection Report. If seed from more than one field has been commingled in one bin, list all fields associated with that sample. This will allow us to match the germination result with the proper conditioned sample when it is submitted for purity analysis and ensure final certification is completed in a timely manner.

Final Soybean Inspections Underway Soon

Soybean harvest will soon be underway and we understand the desire to harvest as soon as possible. However, seed growers are reminded that **pre-harvest inspections must be completed before harvest.** We make every effort to communicate regularly with seed growers to avoid any problems during this busy time. Regulations require that final inspections be made when the crop is approaching maturity. We begin when the crop has dropped 85% of its leaves. This allows inspectors to accurately determine the colors of the pubescence, pods and hila, which are factors used in determining varietal purity. **Growers are requested to call the office when your seed fields are at 50-75% leaf drop.** This will allow us to plan inspections more efficiently and serve you better.

Post Office Changes May Affect Service

The US Postal Service recently announced changes at the NDSU campus post office that may ultimately impact the service we provide our customers. Effective October 1, we will not be able to pick up our mail until after 10:00 am instead 8:00. We have been working with campus officials and the USPS to come up with alternatives. The most significant impact will be the delay in entering seed samples into the system for testing which may effect the turnaround time for results. We encourage customers to submit samples as soon as they can to avoid any delays in service and be patient with us as we work through a new process. As always, we strive to provide the best possible service to our customers and look forward to serving you in the future.



Lab Fees to Increase

The Seed Commission approved a fee increase for all lab testing fees effective October 1. The rate adjustments were necessary to cover increased expenses for supplies and labor. The new fee schedule is available on our website or by calling the office.

Seed Lab Notes

Mark Hafdahl, Seed Lab Manager

By the time anyone reads this, the small grain harvest will be done. Word from the field inspectors is that the scab level is low. Seed quality should be very good in most areas. If you made a pre-harvest application of glyphosate to your small grains, you need to be aware that the germination may be affected and it would be a good idea to test the seed in the spring, as the effect is not always expressed immediately. Hopefully, this doesn't apply to anybody since pre-harvest application of glyphosate is not recommended by manufacturers for seed fields.

Low germination in soybeans and edible beans is usually due to mechanical damage. To prevent or minimize this, don't harvest at low seed moisture and be careful when handling the seed. Avoid augers and don't drop the seed. Hopefully, we will have a late frost to compensate for the slow growing season due to the cold spring.

The Seed Lab looks forward to serving you. If you have any questions give us a call and we will try to answer them.



Ust-Grothmann Joins Department



Karen Ust-Grothmann joined the Administrative Support Program in July, filling the vacancy created by the passing of Rhonda Rabideaux last

March. Karen is primarily responsible for data entry of field inspection applications, inspection reports, and seed samples submitted for testing. Karen grew up on a farm in Steele county and was active in 4H. She has worked previously for Atwood-Larson Company at the Minneapolis Grain Exchange and brings more than 15 years of experience to the department.

Seed Regulatory Report

Joe Magnusson, Regulatory Manager

2008 Regulatory Inspections

All seed exposed, offered or transported for sale to the public must be truthfully and properly labeled and represented. The Regulatory Program is responsible for collecting samples from seed dealers and vendors, analyzing the seed and comparing the results to what is stated on the label. If a discrepancy is found, a "Stop Sale" order is issued and the product must be relabeled or removed from sale.

The Regulatory inspection team drew 1,886 samples for truth in labeling testing. "Stop Sale" orders were issued on 117 seed lots that were improperly labeled or found to be out of tolerance with label claims. The following is a breakdown of the "Stop Sales" issued:

Out of date labels53	Wrong variety5
Excess inert matter.....26	Excess noxious weeds2
Low germination 18	Excess other crop..... 1
Incomplete labels 11	

The following is a breakdown of the number of samples analyzed by crop:

Alfalfa..... 18	Field pea 21	Safflower.....2
Barley 167	Flax 12	Sorghum.....2
Buckwheat..... 1	Grass..... 18	Soybean584
Canola95	Lentil..... 3	Sunflower.....87
Corn..... 146	Millet..... 3	Sweet clover3
Durum.....39	Mustard 2	Wheat557
Field bean..... 106	Oat 20	

We found 40 certified seed samples which were out of tolerance with ND certification standards: 27 for excess other crop, 9 for excess noxious weeds and four for excess weed seed. Most of these were the result of not thoroughly cleaning the bins prior to filling with certified seed.

Seed Labeling Fee Permits

Any person or business that labels seed in North Dakota must have a Seed Labeling Fee Permit, report seed sales and submit a fee annually to the State Seed Department. According to our records there are a number of certified seed growers and nonresident seed dealers that do not have a permit to sell seed in this state. An application for a permit was sent to growers that certified and labeled seed for sale in 2007.

The annual reporting form for seed sales was sent to permit holders June 29 and was to be returned by August 1. If you have not returned your form, please do so as soon as possible. The reporting form must be returned even if no sales were made in the reporting period. If you do not sell seed and wish to cancel your permit, check the appropriate box at the top of the form and return to our office. A late fee applies on forms returned after August 1.

MonDak Seed Conditioner's Clinic Planned

Seed conditioners are invited to join department representatives in Williston for the Mondak Seed Conditioner's clinic November 18-19, 2008.

The clinic will be hosted jointly by the Montana Seed Grower's Association and the North Dakota State Seed Department. Plans are still in the works, but we anticipate a full agenda including a combine cleaning clinic, exhibits and seminars. Due to space and room availability attendance may be restricted. We'll send more details in a future mailing. If you have agenda items you'd like to see us cover, please forward them to Steve Sebesta.

Research Fees due September 15

Research fees are due September 15 for all seed sold for planting purposes between July 1, 2007 and June 30, 2008.

Report forms were mailed to all labelers in late July. If you have not sent your payment to the Seed Department yet, please do so immediately.

Do not pay your county crop improvement or ag association. The only way we can correctly reconcile your account is if the report form and check are sent directly to the Seed Department. Research fee reports must be returned even if no sales occurred.

According to the U.S. Plant Variety Protection Act, variety owners have the legal right to determine who may produce and sell seed of their varieties. Failure to pay research fees may result in a variety owner suspending your eligibility to produce, certify and sell seed of their varieties. Send payment only to the Seed Department to ensure your account is properly reconciled and you receive credit for payment. Thanks to those of you who have already paid your fees.

North Dakota State Seed Department

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NDSSD Calendar

- Sept. 15** Research fees due
- Oct. 1** Unconditioned Carryover Seed Report due
- Oct. 1** Applications due for approved seed conditioners and bulk retailers
- Nov. 18-19** Montana - North Dakota Seed Conditioner's Clinic
- Dec. 4** SW District Crop Improvement Association, Mandan
- Dec. 5** NW District Crop Improvement Association, Minot
- Dec. 8** NE District Crop Improvement Association, Lakota
- Dec. 9** SE District Crop Improvement Association, Casselton