



# The North Dakota Seed Journal

JUNE 2010

Newsletter of the North Dakota State Seed Department

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Jeanna Mueller and Danilo Martinez

## New Certified Seed Analysts

The ND Seed Lab is happy to announce that Jeanna Mueller and Danilo Martinez have completed their national exams and are now officially recognized as Certified Seed Analysts (CSA). Jeanna earned certification in both purity and germination and Danilo is certified in purity. They will be recognized for their accomplishment at the Association of Official Seed Analysts (AOSA) annual meeting in St. Louis, Missouri this June.



## Durum Field Eligibility Requirements – Four Years Later

Steve Sebesta, Deputy Commissioner

Durum growers will recall a change made several years ago to field eligibility requirements for the production of Foundation and Registered seed. As with some rule changes, this particular one met with some opposition from growers. At issue was the fact that fields passed field inspection but many seed lots failed final certification due to contamination from spring wheat. From our perspective the statistics supported a change. Now several years later, what do the statistics say?

Over the six year period preceding the rule change, approximately one in five durum seed lots failed final certification due to wheat contamination, more than a half million bushels in all. On average that meant 44 lots per year for an average of about 93,000 bushels each year.

Since the eligibility requirements were changed to prohibit the production of Foundation and Registered class durum on land that had spring wheat either of the two preceding years, the number of lots failing has dropped to an average of 14 per year, the total bushels failing dropped to just over 100,000 and the average annual bushels failing dropped to 26,000. Any way you look at it, the failure rate has declined by about 70%. That is significant improvement.

Judging by these numbers, I think you'll agree that we achieved the result we anticipated, specifically, fewer seed lots of durum contaminated by spring wheat, resulting in more bushels of high quality, North Dakota certified seed.

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

It happens to everyone; things are running along smoothly and you suddenly hit a glitch or road-bump. A monkey wrench gets thrown in. Something upsets the appletart. It's a train-wreck, blowout or nightmare. The clichés used to describe sudden chaos go on and on.

This year's version of (insert favorite cliché) has been caused by federal policy. More accurately, the formula used to set FSA loan rates on durum wheat.

Without going into great detail, loan rates for durum skyrocketed to \$6.00-6.20 per bushel last week. Compare this to an average loan rate of \$3.65-3.70 per bushel for spring wheat and you can guess the speed at which calculators were humming around the northern plains. The gap in rates favoring durum resulted in a mad scramble for growers seeking to switch plantings from spring wheat, oilseeds and even corn, to durum.

This is a big issue on the farm. It is no small issue either for your certification/regulatory agency. The phones started ringing here about the same time cell-phones started chirping in shops and tractors around the state, whereupon these issues (from the seed perspective, never mind the economic conse-

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

quences) all became apparent at the same time:

1. There (probably) isn't enough durum seed in inventory around the state or region to satisfy the demand caused by this (insert favorite cliché). When we say seed...we mean seed. That which has been inspected and tested.
2. There may be durum in bins around the state(s), which could be planted as bin-run...but probably hasn't been tested for germination or purity. Germ testing takes 7-10 days to complete. This is a problem when (insert cliché).
3. Virtually every preferred variety of durum is protected by PVP or PVP Title V. Those can only be sold or marketed with the approval of the variety owner (PVP) or as a class of certified seed (Title V). Otherwise, it isn't legal seed. This presents a (insert cliché), and if marketed illegally will lead to (insert cliché) if the seed is brown-bagged.

As mentioned, we've taken dozens of calls in the past week, and expect more

as planting proceeds. Most are related to one of the issues cited above, or answering questions from someone seeking or possessing eligible seed sources. We've done our best to guide growers, seed conditioners and retailers to solutions to the logistic (insert cliché) of a late blooming seed shortage situation. The media has also been very receptive and responsive in getting the word out. Unfortunately, Seed Journal articles are about six weeks past any utility in providing immediate notice of (insert cliché) happening.

Aside from providing advice in finding seed, quickly testing seed and explaining the legality of seed, we go into regulatory mode. When presented with this type of situation (where seed shortages become temptations for skirting rules), our advice is always consistent: if it isn't legal seed ... don't buy it and don't sell it. The risk is too great and the result is (insert cliché).

Best wishes for a safe and profitable spring planting season



## Facility Permit Fees to Increase

Periodically, the Seed Department reviews fees to ensure that our programs are solvent. For the past 19 years the annual facility permit cost \$40. During that time, our costs to operate that inspection and licensing program have risen well above the fee we charge. At the current rate, the program recovers less than half of its operating costs so as a result, the department will increase fees to \$100 for the annual permit to operate certified seed handling facilities. The new rate was approved by the Seed Commission in March and is effective July 1 for 2011 permits. Current permits are valid until December 31, 2010.

Agreements to operate as an approved conditioner or bulk retailer will be mailed to all current facilities in August. Facility managers are requested to complete the form and return it to our office with the \$100 payment by October 1. Facility inspections will begin in October.

## 2010 ND Seed Potato Post Harvest Test

*Willem Schrage, Director, Potato Programs*

Article 74-04-01-09 of the ND Administrative Code stipulates that seed lots from all foundation and basic seed potato fields must be tested if they are intended for certification the following year. Post harvest testing is the most important tool available to the seed potato grower to control virus. The stipulation that only seed lots with 0.3% or less total virus during field inspections are eligible for post-harvest testing is a good indication that virus control is important.

Although developments of new strains in Potato Virus Y are resulting in less obvious field symptoms, the regulations still indicate that the results will be based on inspection for virus or virus-like symptoms. Certain potato varieties have also caused problems for the industry because symptom expression has changed and has become less obvious. Therefore, ND regulations allow for laboratory testing on varieties that have slight or latent symptoms.

There are many advantages in examining a crop in a winter test. Inspectors can discern mixtures of varieties, certain herbicide damage, off type plants, some other diseases; all issues that cannot be addressed economically by lab testing. The disadvantage of field tests is that one is dependent on the weather. Potato plants do not survive seven inches of rain, as we had this winter. Only twenty percent of the plants survived, yet those were evaluated for symptoms. When necessary, leaves and or small plants were sent to Fargo for lab testing.

ND regulations provide for possible failure of the winter test, and in that case eligibility of a seed lot will be based on the current field readings or a laboratory test at the department's discretion. Growers were advised that their seed lots would be eligible for re-certification based on summer inspection results. However, the market drives the need for the post harvest test. Some growers did not want to take the risk of planting an infected lot near a clean lot. Growers in most states want to know the winter test results, but although some growers trusted the summer readings, the certification office in their states require these numbers. To accommodate those needs a sprout test was considered a feasible option. Tubers were collected in Grafton by the inspectors and sent to the Fargo office for ELISA testing. Since the titer of the virus in sprouts is often less than in leaves, sprout testing results were considered less exact than leaf tests. To ensure accuracy of the ELISA results Dr. Neil Gudmestad of NDSU offered to conduct immunocapture PCR on suspected wells in the ELISA plates. In molecular sciences, PCR (polymerase chain reaction) is a technique used to amplify copies of a piece of DNA to be used to identify a target piece of DNA. Because of the application of this technique the ND Seed Department could identify a lower threshold in the ELISA test for confirmation with the IC-PCR technique.

With NDSU's assistance, we discovered that only one in three was actually negative. The accuracy of the sprout test was certainly enhanced. While the percentage of false negatives was very low, the difference to the particular grower, whose seed lot would have been planted near a clean seed lot, could have been be great. Our thanks to NDSU for their assistance this year.

## Changes to Seed Commission

There have been several changes to the North Dakota State Seed Commission in the last year.

**Mark Birdsall, Berthold, ND** was elected by the district directors of the ND Crop Improvement and Seed Association to represent that group on the commission. Mark is a certified seed producer and owner of Birdsall Seed & Grain.

**Nick Otto, Crystal, ND** was elected to represent the North Dakota Potato Council. Nick operates Otto Ag (fertilizer and chemical sales) along with a farm partnership growing chip potatoes, small grains, edible beans and soybeans.

The Seed Department wishes to acknowledge and thank **Mike Gartner, Mandan, ND** for his many years of service to the North Dakota seed industry. Mike served on the commission as the representative of the crop improvement association since 2002. He was always supportive of the department's mission and provided effective guidance over the years.

**Summer Hours**  
Effective June 1  
core office hours are  
7:30 - 4:00  
Monday through  
Friday.



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Seed Department

## Seed Department Deadlines

- June 15 ...** Field inspection applications due for all crops except conventional soybeans, buckwheat and millet.  
Potato field inspection applications due.
- June 30 ...** License applications due for wholesale potato dealers
- July 1 .....** Bulk certificates due
- July 15 ....** Field inspection applications due for buckwheat and millet
- July 31 ....** Labeling fee reports due
- Aug. 1 .....** Field inspection applications due for soybeans (pre-harvest inspection only)
- Sept. 15...** Research fees due
- Oct. 1 .....** Unconditioned carry-over seed report due
- Oct. 1 .....** License applications due for Approved Conditioners
- Oct. 1 .....** License applications due for Bulk Retail Facilities
- Dec. 31 ....** License applications due for non-resident seed dealers

## Plant North Dakota Certified Seed



**Phone: (701) 231-5400**

**Fax: (701) 231-5401**

**E-mail: [ndseed@ndseed.ndsu.edu](mailto:ndseed@ndseed.ndsu.edu)**

## Destroying a Seed Crop to Make Harvesting Easier

Mark Hafdahl, Seed Lab Manager

Some producers either haven't heard or don't care that glyphosate herbicide is not intended for pre-harvest use on seed crops. Since last fall we have identified hundreds of seed samples which showed symptoms of glyphosate exposure. Many of these samples produced germinations that were below 85% solely due to the herbicide application. For those producers there was a high price to pay for easier harvesting.

From what we can determine, pre-harvest herbicide application was not limited to small grains. We have observed symptoms on field peas, lentils, and flax that resulted in germination reduction. There may be other crops affected that don't display symptoms that we are familiar with or don't express symptoms in a short germination test.

I have had a few calls from farmers in the area that are suspicious of the seed they have purchased. They seem to have an idea who goes through a lot of glyphosate herbicide in the fall. This situation can't be good for business. Even worse for business would be planting a quarter-section of summer fallow.

If you are already familiar with this problem, pass this information along to any other seed producer.



Seed damaged by glyphosate (L) compared to normal seedling development.

### Seed Producers...

be certain your seed fields have been inspected by ND State Seed Department inspectors before you begin harvesting. Fields harvested before the inspection is completed will not be eligible for certification.

**If you are ready to harvest and you are not certain your seed fields have been inspected, call your inspector or the State Seed Department at (701) 231-5400.**

## Preparing For Field Inspection

Galen Briese, Certification Manger

This year, field inspection will likely be early in many parts of the state due to the earlier planting season. Field inspection starts once the plant characteristics are fully expressed. For example, small grains must be fully headed, field peas and flax must be in bloom.

Producers need to make sure the fields are ready. Isolations, if needed, must be installed before inspection. Producers should scout their fields for other crops, noxious weeds and isolate these areas or rogue out the contamination. Be aware of potential problems so there is no surprise after inspection. Seed Department inspectors should not be your first line of quality control.

Make sure that the fields are inspected and you have reviewed the inspection report before harvest. Many times corrective action may be taken to salvage part or all of the field. If you are not sure your field has been inspected, call your inspector first. He or she will be in the best position to provide answers. Fields that are harvested before the inspection cannot be certified.

Storage of the seed is another area of concern. Clean bins thoroughly before harvest. Field inspected seed must be identified at all times. This saves mix ups later in the season. Trucks, wagons, augers, etc. need to be cleaned before harvest and between varieties or other crops to prevent contamination problems.

Combine cleaning is probably the most important step in producing clean seed. A study conducted at Purdue University revealed that nearly 200 lbs of seed and material other than grain was recovered from combine after it ran empty for several minutes (Purdue Extension Bulletin GQ-49-W, Where Grain Hides in a Combine).

Taking the time to doing a few preventative steps before harvest will pay dividends and result in a quality product to sell.

## Summer Potato Virus Test Reminder

In July, the Diagnostic Lab will conduct the annual summer potato virus test. This service is provided to growers on a voluntary basis for anyone interested in submitting leaflet samples for PVX and PVY testing. Growers need to be aware that there is currently one testing requirement for certification. PVY tests are required on all latent virus carrier varieties including Russet Norkotah, Shepody, and Silverton. Contact the Potato Certification program for questions regarding varieties that are required to be tested for PVY.

All tests are conducted using an ELISA test and 400 leaflet samples. Growers should submit at least 440 leaflets for these tests in order to ensure the proper sample size is tested. Bt-Cry3a tests will also be available at the same time for any grower interested in obtaining a GMO test. This test also requires a minimum of 400 leaflets. PVX, PVY, and the GMO test can be performed on the same leaflet sample.

Each grower will receive an information packet containing instructions for collecting and submitting samples for testing, sample tags, and a test request form in July. Use the test request form to indicate whether you will be submitting samples for testing and when you would like to test. To ensure proper sample identification, the sample tags must be returned with the samples. Please contact the department if you have any questions on sampling or testing.

## Summer Reporting Requirements

### Annual Report of Seed Sold due July 31

According to Chapter 4-09 of North Dakota Century Code, a Seed Labeling Permit is required by anyone (individual or company) who labels seed in North Dakota. This includes not only agricultural seed, but flower, vegetable, tree and shrub seed as well. This report is due thirty-one days after the reporting period ends, which is June 30. All North Dakota permit holders will receive a report form in late June. Labelers must report the quantity of ALL seed sold during the reporting period (July 1 - June 30) and remit the appropriate fee to the Seed Department. This report includes ALL seed, not just certified seed. The report must be returned even if there were no sales in the reporting period. If you no longer sell seed, please check the appropriate box on the form to cancel your permit.

### Research Fee Report due September 15

The State Seed Department is responsible for collecting research fees for NDSU, our neighbor states and Busch Agricultural Resources for seed sold in North Dakota. Research Fee Reports for seed produced in 2009 will be mailed to all who completed certification and labeled seed during the last year and sold before June 30, 2010. Labelers are required to report the quantity of seed SOLD AS SEED and remit payment to the Seed Department. Please make sure you return the report and payment to the Seed Department on time. DO NOT remit payment to your county extension agent or local/state crop improvement association. All reports must be returned to the Seed Department in order for your account to be reconciled.

### Unconditioned Carryover Seed Report due October 1

Report forms are mailed to seed producers in late July and are due October 1. Key information includes variety, class, field application number and the number of bushels of unconditioned seed remaining. Unconditioned Carryover Seed Reports must be submitted in order for that seed to be eligible for final certification in 2010-11. Failure to report carryover seed will disqualify that seed for final certification. To assist you in marketing that product, unconditioned carryover seed is listed in the Seed Directory if reported on time. 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.



## Early Season Ascochyta Testing

*Jeff Prischmann, Diagnostic Lab Manager*

Chickpea, field pea, and lentil producers needing Ascochyta testing during the upcoming testing season should submit samples as early as possible to ensure timely testing. The Diagnostic Lab has experienced a significant increase in the number of tests this past season and many of those tests were conducted during the last few months of the season. Growers may submit samples as soon as they are available this fall. The test requires 8-10 days to complete so early season testing will allow us to more efficiently process your sample and in turn, provide you better testing service.

**The Ascochyta test is required for labeling of chickpea and lentil seed, and test results must be on the label.**

Another point to keep in mind is that your Ascochyta test result is only as good as the sample you submit for testing. Sampling is an extremely important part of seed testing that can often be overlooked. The most important factor in sampling is obtaining a sample that is representative of the field or seed lot. This can be achieved by probing several bags, bins, or during seed movement and then compositing into a single sample. A portion of this sample can then be submitted for testing. Growers should also keep a reference sample on hand as a backup sample to go back to if needed. These sampling tips will help growers achieve a more accurate Ascochyta test result.

The department currently charges \$88 for Ascochyta tests on field pea, lentil, and chickpea using a sample or test size of 500 seed. Please contact the department for more information. Thanks for your past testing business.

## Seed Regulatory Update

*Joe Magnusson, Regulatory Manager*

### Truth in Labeling Testing

The Seed Department sampled and tested approximately 1,900 samples for truth in labeling this spring. Stop Sale orders were issued on 42 seed lots that were improperly labeled or found to be out of tolerance with label claims. The majority of these violations were due to outdated labels. We also found 16 certified seed lots that were contaminated with other crop seed or weed seed and no longer met certification standards. These lots appeared to have been contaminated in bins or handling equipment that were not thoroughly cleaned. We also found two lots of wheat during variety testing that were mislabeled as to variety. The seed in question had not been sold and was dumped as commercial grain.

### Seed Labeling Permits

Any person selling seed in North Dakota must first obtain a permit to sell seed in this state. If you are a certified seed grower and have seed labeled in your name you must have a permit before you sell that seed. If you fail to get a permit, we will issue a stop sale order on your seed and you will not be able to certify or sell seed in the future until a permit is obtained. If you do not have a permit, call our office and we will send one to you.

### Annual Report of Seed Sales

The annual reporting form for seed sales will be mailed to all permit holders the end of June. That form and any fees due must be sent back to the Department within 31 days or late fees will be applied. **The form must be returned even if you did not have any sales in the reporting period. If you wish to cancel your permit, check the appropriate box at the top of the form and return it within 31 days.** A number of permit holders still haven't returned their 2008-2009 annual report form for seed sales. They will receive that form again, along with the 2009-2010 report form. If you do not return your

reporting form(s) and your permit is cancelled, you will not be able to certify or sell seed in this state. We also have a number of permit holders who are selling seed in ND but not reporting any sales or remitting the appropriate fees. When we find unreported sales we will stop sale any seed from that labeler until corrective action is taken.

### Legal Seed Concerns

We have received several calls from seed producers concerned about farmers cleaning bin run seed of protected varieties of durum and selling the seed to neighbors. Most varieties of durum are protected by the Plant Variety Protection Act (PVPA) with the certification option. This means that they can only be sold as a class of certified seed. Anyone selling non-certified seed of these varieties is in violation of state and federal seed laws. Damages for state violations of this act can be as high as \$5,000 per sale, along with numerous labeling violations which each carry a potential \$5,000 fine. The owner of the variety can also collect triple damages on the seed that is sold and produced from the illegal seed sale. They can also collect damages from the seed conditioner.

Seed certification ensures that high quality seed of known genetic identity and purity is available to the agricultural industry. Illegal seed sales are detrimental to the entire seed industry. The Seed Department monitors seed sale activities, including ads placed in state newspapers and trade magazines. Regulatory inspectors are currently in the field investigating activities related to illegal seed transactions, and will actively pursue violations throughout the year. Recognizing the special nature of the situation regarding durum plantings, the Seed Department will work with other agencies and seed industry partners to investigate violations and enforce seed laws.

## North Dakota State Seed Department

State University Station  
P.O. Box 5257  
Fargo, ND 58105-5257

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U.S. Postage

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Permit No. 229

ADDRESS SERVICE REQUESTED

# NDSSD Calendar

- June 15 ...** Field inspection application deadline for all crops except buckwheat, millet and soybeans requiring single inspection
- July 12 ....** Field Day – Agronomy Seed Farm
- July 13 ....** Field Day – Hettinger Research Extension Center
- July 14 ....** Field Day – Dickinson Research Extension Center
- July 15 ....** Field inspection deadline for buckwheat and millet  
Field day – Williston Research Extension Center
- July 20 ....** Field Day – Carrington Research Extension Center
- July 21 ....** Field Day – North Central Research Extension Center
- July 22 ....** Field Day – Langdon Research Extension Center
- August 1..** Field inspection application deadline for soybeans requiring pre-harvest inspection only