



# The North Dakota Seed Journal

JANUARY 2017

Newsletter of the North Dakota State Seed Department

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## Seed Sampling and Labeling

*Jason Goltz, Seed Regulatory Manager*

As the 2017 seed sales season is about to get underway, now is the time to prepare for selling seed in North Dakota. We advise paying close attention to the following issues prior to seed marketing season.

### Out of Date Seed

Carry over seed must be retested for germination and new seed labels with current test date must be attached to the container. To determine if the test date is current, check these germination test dates:

- Agricultural crops – 9 months excluding the month of the test
- Vegetables and native grasses – 12 months excluding the month of the test
- Lawn and turf grasses – 15 months excluding the month of the test

If you retail seed that is labeled by another company, you should contact the company concerning the out of date seed labels. They should get samples of the carryover seed, retest the germination and supply you with new labels to replace out-of-date labels. If they will not provide that service, you will need to send a sample to the NDSSD seed lab, request a new germination test and then replace the tags with the current information.

### Labeling Permits

Any person labeling seed for sale in North Dakota must obtain a permit before any sales are made. If you are a new seed grower this year and plan to label seed in your name, send an application to the Seed Department. An application for the seed labeling permit is available on the North Dakota State Seed Department website ([www.ndseed.com](http://www.ndseed.com)). There is no charge for the permit and it does not need to be renewed.

### Clean and Monitor Bins Prior to Regulatory Inspections

Due to mild temperatures during fall and early winter, monitor bins for any signs of heating or insect damage. If you use a pre-germ on your seed lot, it would be wise to send a sample to the seed lab for a new germination test closer to seed marketing season. Probe the bin at the top and the bottom to get a representative sample of each seed lot. Ensuring that the seed lot has not gone out of condition can help you avoid an unnecessary stop sale order when the regulatory inspector arrives at your location.

Be sure to address these issues early. Our seed lab can be very busy after the New Year which could cause a delay in testing. The alternative would be to request the samples to be rushed, increasing the cost of the testing. Staff at the North Dakota State Seed Department is always available to help answer questions.



*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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[www.ndseed.com](http://www.ndseed.com)

# From the Commissioner's Desk

I started writing a sidebar for this edition of Seed Journal that updates readers on recently-appointed Seed Commission members. Then I thought to myself “self, you haven’t talked about the Seed Commission for a long time”. Here you go.

The Seed Department is very unique by comparison to our peers; a government agency serving as the state’s designated authority for certification of all crops including potatoes, and also assigned seed regulatory responsibilities. We also house the state Seed Lab, which along with our Diagnostic Lab tests seed for final certification and regulatory purposes. Producers choose to grow and market certified seed, and we provide a diverse range of inspection and testing services along with regulatory oversight. That said, we need to do a great job on behalf of our growers and all sectors of the industry. And we still need to operate like a business...hence the “board of directors” function of the Commission.

The Seed Department is also unique in its governance. The State Seed Commission is a nine member board representing agriculture organizations and constituents throughout the state. The Commission sets policies, approves budgets, sets fees and guides program/service development in the Department. The Commission and appointed Seed Commissioner are statutory positions; the powers and duties for both are spelled out in code. Commission membership has changed slightly over time, but represents the users of Department certification programs primarily in field crop and potato seed production and retail seed marketing. The ND Department of Agriculture and ND State University,

Ken Bertsch..... State Seed Commissioner  
Steve Sebesta..... Deputy Seed Commissioner  
Kent Sather..... Director, Potato Program  
Jason Goltz..... Field Seed Program Manager  
Joe Magnusson..... Field Seed Program Manager  
Jeanna Mueller..... Seed Laboratory Manager  
Jeff Prischmann.. Diagnostic Laboratory Manager  
Kris Steussy ..... Administrative Officer  
Mike Oosterwijk ..... Potato Program Supervisor

as technical program partners, also hold voting membership status on the Commission.

The adjacent sidebar shows our current Commission membership. As you see, the breadth of representation in the seed industry is excellent. You are well-served by the depth of knowledge and experience of our members, some of whom have served on the Commission for over 15 years. That experience is balanced with “new blood”, with new industry reps rotating into Commission seats every few years.

Best of all, the Commission truly operates as a policy setting body in governance terms. The relationship between administration (including program managers) and Commission is communicative and intent on achieving the objective of providing solid service to the industry. They guide, we provide.

An important point: our clients should communicate their views and advice to me AND Commission members. Everyone associated with this agency, Commission and staff, is aligned and pulling the same direction. The Commission really does represent the entire seed industry, and guides change in our organization and the services we provide. I encourage you to offer your opinions and feedback to Commission members on Seed Department operations.

Best wishes for a reasonably warm, blizzard-free and profitable winter season.



## ND State Seed Commission

**Doug Goehring**, Bismarck  
*ND Commissioner of Agriculture,  
Chairman*

**Luke Anderson**, Forman  
*ND Crop Improvement and Seed  
Association*

**Kim Alberty**, West Fargo  
*ND Agricultural Association*

**Johnny Thiele**, St. Thomas  
*ND Certified Seed Potato Growers  
Association*

**Jeff Kittell**, Lansford  
*ND Grain Dealers Association*

**Brad Nilson**, Hoople  
*Northern Plains Potato Growers  
Association*

**Lance Fugleberg**, Portland  
*ND Dry Edible Bean Seed Growers'  
Association*

**David Fedje**, Hoople  
*ND Potato Council*

**Dr. Ken Grafton**, Fargo  
*NDSU Agricultural Experiment Station*

**Ken Bertsch**, West Fargo  
*State Seed Commissioner*

**Field Seed and  
Potato Directories  
are available online at  
[www.ndseed.com](http://www.ndseed.com)**

**Print copies of Directories and  
the 2016 Seed Guide are  
also available at the Seed  
Department office.**



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](mailto:tips@farmersyieldinitiative.com)  
Mail tips to: Farmers Yield Initiative  
PO Box 8850  
Fayetteville, AR 72703

## Ascochyta Testing in Pulse Crops

Jeff Prischmann, Diagnostic Lab Manager

*Ascochyta* testing in pulse crops this season is well under way. We frequently receive questions regarding *Ascochyta* and what amount of *Ascochyta* is considered high in a sample.

*Ascochyta* is a seed transmitted fungal pathogen that can infect many pulse crops including field pea, lentil, and chickpea. *Ascochyta* is crop specific, meaning that *Ascochyta* species that infect lentil will not infect field pea or chickpea. This also applies to *Ascochyta* found on chickpea or field pea. Field pea has multiple *Ascochyta* species that can be present whereas chickpea and lentil each have one *Ascochyta* species that cause infection. *Ascochyta* can cause yield losses in pulse crops at high enough levels in the field.

*Ascochyta* tests on pulse crops are conducted using a 500 seed sample. Results are reported as the percentage of infected seed found in 500 seed tested. Results of 0% indicate that no *Ascochyta* sp. was found in the sample tested. Small amounts of *Ascochyta* sp. may be acceptable based on the type of crop. For example, field pea may have a higher acceptable level of *Ascochyta* sp. than other pulse crops such as chickpea.

Generally, the following guidelines are what we tell growers about the acceptable amounts of *Ascochyta* in a seed lot: For chickpeas, 0.3% seed infection or less is acceptable. A test score 0.4% or greater is not acceptable for chickpeas. In this case, we recommend buying new seed. For lentils, 0.5% seed infection or less is considered acceptable. Levels of 0.5% to 1.0% are considered ok, however, growers are cautioned to monitor fields closely for infection. Lentil *Ascochyta* infection levels of 1.0% to 3.0% require seed treatment and levels above 3.0% are considered unacceptable. For field peas, *Ascochyta* does not cause as many problems as lentils or chickpeas. However, some sources report high infections as those greater than 5%. In this case, growers or producers may want to look for other seed sources.

The bottom line on any seed health test is to look at the results in relation to the crop and consider finding different seed 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. Growers are encouraged to submit samples for testing as soon as possible to ensure that your testing needs are conducted in a timely fashion. Please contact the department with any questions or comments.

*Lentil Ascochyta* agar test showing two infected seedlings.



## Approved Facility Program

Kyle Bednar, Field Seed Inspector II

The North Dakota State Seed Approved Facility Licensing Program provides an assessment and approval process for facilities processing and selling seed. Facilities processing and/or handling certified seed products must be inspected and approved by the ND State Seed Department. To be approved, facilities must meet all requirements, which are listed in state administrative rules. Approval is granted on an annual basis and may be revoked by the Seed Commissioner at any time without notice if the rules are not followed, or if the facility is found guilty of violations of North Dakota seed laws, the Federal Seed Act, or the Plant Variety Protection Act.

The process to become an Approved facility is quite simple. The first step is to submit a North Dakota State Seed Department agreement to operate as an Approved Facility. This document is found on the State Seed Department web site ([www.ndseed.com](http://www.ndseed.com)) under ONLINE FORMS. You may also contact the office and we will send you an application. Make sure the facility information as stated on the application is correct, as this will be printed in the Field Seed Directory, the ND Certified Seed Guide and our website. Secondly, a Seed Department inspector will contact you for an inspection of the facility, review any questions the operator may have and make sure the facility meets the minimum requirements to be approved.

The results from the 2017 facility annual inspections, conducted from late fall thru December show fifteen facilities on probationary status. The most common areas of concern were retained sample retention and/or the proper labeling of seed. The signed facility agreement states the labeler shall retain a two-pound sample for each certified seed lot, labeled with kind, lot, class and variety, for a one year period from the last date of sale. These retained samples are intended to defend the labeler in the event a producer feels there is a discrepancy with the stated label claims.

By now, you should have received your 2017 facility inspection and permit. Please retain the inspection report and display your permit appropriately.

Thanks to our inspectors for another successful year. Thanks also to facility managers and staff for the support and cooperation while our staff are on site conducting inspections. I encourage you to contact the NDSSD office at 701-231-5400 or your regional facility inspector if you have any questions.

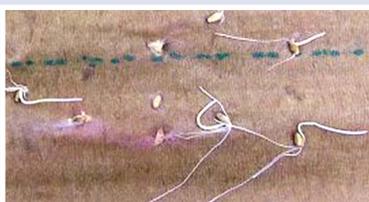
## Seed Quality Forecast

**Jeanna Mueller**, Seed Lab Manager  
**Joe Magnusson**, Certification Manager

The ND State Seed Lab has received 2,900 samples so far this year compared to about 3,700 during the same period last year. Our 2016/2017 testing season is starting to pick up, but the pace of sample delivery is slower than last year likely due to the nice fall weather we have experienced. We expect sample numbers will increase after the holiday season and the labs will be busy testing seed. If you are in need of results within a prescribed testing time period, you may need to mark your sample “rush” which leads to doubling the cost of testing. “Rushing” your sample basically moves your test request to the front of the line in either the Seed Lab or the Diagnostic Lab here at NDSSD.

### Crop Quality

**Durum** – Seed quality this year may be questionable in durum, as scab has already been detected in many of the samples received in the seed lab. We have planted most of the durum



in 50 seed replicates rather than the typical 100 seed replicates to lessen the spread of scab affecting the seedlings. This makes it easier to determine if an abnormal seedling is truly abnormal or if it is affected by scab. As seen in the photo above, seedlings are being affected by the pink mold from the scabby kernels. Durum is generally more adversely affected by scab than other cereals. To date, 77% of the samples tested have been in the 80%-90% range and another 16% tested in the 70% germination range.

**Spring and Winter wheat** – Quality has been average to good, with results in the 90% germination range. There may also be some spring wheat with questionable quality due to scab issues. Small grain sample numbers have increased substantially in the last few weeks of 2016.

**Barley** – We have not seen enough barley come in this year yet to make a projection on quality.

**Soybean** – Germination scores have been average to high, with very little damage to seed and very few samples testing below 90%. Soybean samples have been coming in steadily throughout the fall season.

**Field Peas** – Field peas are a fragile crop and do not tolerate excessive handling or conditioning, especially during the cold winter months. So far the samples we have received that were conditioned off the combine and/or before the frigid temperatures have been very good quality. 92% of the samples have tested in the 80% to 95% germination range and are in the range to pass for final certification. Conditioning fragile crops in January thru spring during the coldest months generally results in germination decreasing by 20 to 40 percent.

### Potential Seed Quality Issues

Weathered and /or sprouted seed could be a potential problem this year, leading to concerns related to low vigor seed. Many areas of the state experienced adverse harvest conditions and high rainfall, leading to crops left standing in the field well past physi-

*Sprouted wheat seed*



ological maturity and leading to sprouting. Poor storage conditions can also lead to continued seed degradation or seed vigor problems.

Sprouts may be detached when the seed is conditioned leading to further damage to the seed. The best way to ensure the quality of seed (in germination and seed vigor terms) is to test the seed close to planting time. We offer vigor tests for soybeans, field beans and field peas. There is no AOSA-approved vigor test offered for small grains.

We have been getting reports out of the northern tier counties of scab issues affecting all cereals, especially durum. Visual examination of seed samples does not necessarily indicate the telltale characteristics of scab, such as the white chalky kernels or a slight



*Scab – white chalky kernels also referred to as tombstones*

pink coloring. Those characteristics are most evident in the end-stage of *Fusarium* infection of the seed. It is always best to get your seed tested due to these factors. The seed lab can also do a laboratory-treated germination upon request to help determine how the seed lot would respond with a seed treatment applied.

### Reminders

Each year we receive samples that do not have adequate seed for all the tests requested. Information regarding sample size/amount is available on our website or you can give us a call with any questions. As always, sending samples as early as possible assures timely processing.

### Email Notifications

If you have supplied us with your email address, you will receive an email once your sample has been entered into our system. It will include the kind, variety, lot number of the sample, and the tests you requested. You will also receive an email providing results for completed tests.

When you send samples we urge you to use a lot number or bin number of the sample so it can be identified by both the sender and in our systems. Without an accurate descriptor, all that will show on the email notification is “No Lot Number Provided” which will hinder identification of your samples. The email notification has proven useful for growers to determine if test requests have been accurately stated and accepted, and allows us to add or delete a test before the procedure has been started.

Additionally, if you are submitting samples or conditioning seed for others, you must notify us if you would like to be included in receiving e-mail results for that seed or sample. A simple statement like “copy results to \_\_\_\_\_” is all that is needed.

# Potato Program Update

**Kent Sather**, Director of Potato Programs

I spoke recently with a potato grower that has farmed over 60 years. He said there were only two years over that time that he harvested potatoes during the month of November. This was the third year in over six decades of potato production for that veteran grower.

Harvest of potatoes in November added another chapter to the unusual growing season of the 2016 potato crop. The extremely wet conditions all summer, especially in Pembina and Walsh counties, forced growers to harvest when, where, and as late as possible. Extra tractors and cranes were on call to pull partially loaded trucks and lift mired harvesters. Some growers mucked out their crop until the hard frosts of mid-November sealed the remaining crop in the ground. Abandoned acreage is undocumented at this point in time. Yields from acreage harvested appear to be better than average, making up some of the total loss expected.

Growers also were concerned about late blight spreading from confirmed infections in Manitoba. According to Andy Robinson, Extension Potato Agronomist, NDSU-U of MN, there were some confirmed finds in North Dakota later in the growing season. No late blight was confirmed by state seed inspectors in certified grower's fields. We also surveyed for *Dickeya dianthicola*, a bacteria that has caused poor stands and large yield losses. Samples of plants with blackleg type symptoms were submitted to NDSU and UofM. No positives have been confirmed.

The 2016 Crop Directory of seed lots eligible for sale as certified seed was published as soon as field inspections were completed and field data reviewed. Acres accepted totaled 11,924. North Dakota certified seed potato directories can be obtained online at [http://www.nd.gov/seed/potato\\_directory/index.aspx](http://www.nd.gov/seed/potato_directory/index.aspx), by calling the North Dakota State Seed Department at 701-231-5000, or by emailing Kent Sather at [ksather@ndseed.ndsu.edu](mailto:ksather@ndseed.ndsu.edu).

## Post-Harvest Test

Post-Harvest Test samples have been submitted to NDSSD staff in a timely fashion, processed, and shipped to Alger Farms, our cooperating grower in Homestead, Florida. 100 to 1200 randomly selected tubers from each qualifying seed potato lot (depending on acreage in the seed lot) are collected and sent for a post-harvest grow-out. A grow-out is a time tested industry standard. The main objective is to detect virus pathogens that have been transmitted during the current growing season. Virus transmission happens primarily by insect vectors, often happens late in the growing season, and cannot be detected at that time visually or by lab testing. However, the pathogen will express itself in a grow-out, allowing inspectors to identify seed lots and the extent of the infection. This post-harvest examination determines eligibility for re-certification the following summer crop season. Virus is the main target, but other factors such as mixture, herbicide damage, vigor and other diseases may cause the lot to be rejected for re-certification.



2016 crop samples were planted in mid-November by Seed Department officials with the help of Alger Farms. In early January, Department officials perform field inspections on the growing samples in a manner that approximates summer field inspections. Laboratory testing is also done in a similar manner to summer inspections, especially on varieties known to mask virus symptoms. Results provide information to North Dakota and other state programs on the eligibility of seed lots for planting and certification the following season. A Winter Test Directory is provided to anyone interested in eligible seed lots.

## Steve Sebesta Joins Seed Department

Steve Sebesta returned to the ND State Seed Department staff in his former role as Deputy Commissioner January 2, 2017.

Steve was formerly employed with the Department for a ten-year period from 2003-2013. He began his career at NDSSD as Director of Field Seed Programs and became the Deputy Commissioner in 2006, overseeing Field Seed, Regulatory and Lab Services units until his departure in December of 2013.

Steve has served as Monsanto/Westbred Regional Commercial Manager, Northern Plains in their wheat program for the past three years. He returns to the Department with additional private sector experience in the wheat industry that complements a strong resume in the seed industry from previous career stops. Combined with his experience in a wide range of Seed Department programs, Steve's technical and management skills are a welcome addition to our operation and will help the agency improve our services considerably in the future.

Join all of us at ND State Seed Department in welcoming him back to our team.

## North Dakota State Seed Department

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Permit No. 433

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# NDSSD Calendar

- Jan. 23-24** ..... Northern Pulse Growers Association, Minot
- Jan. 25-27** ..... KMOT Ag Expo, Minot
- Feb. 1-2** ..... ND Crop Improvement Annual Meeting, Bismarck
- Feb. 20** ..... President's Day (office closed)
- Feb. 22** ..... ND Certified Seed Potato Growers Annual Meeting,  
Grand Forks
- Feb. 22-23** ..... International Crop Expo, Grand Forks
- Mar. 5-12** ..... ND Winter Show, Valley City
- May 1** ..... Field inspection applications due, grasses