



The North Dakota Seed Journal

OCTOBER 2025

Newsletter of the North Dakota State Seed Department

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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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Seed Sample Reminders

Jason Goltz, Field Seed Program Manager

We are now seeing seed samples arriving for testing and final certification as well as seed lots which have moved to bulk retail locations for future resale. Each year, we conduct approximately 13,500 tests on 6,900 samples. Our goal is to provide services accurately and efficiently, but that depends on how we receive the information from our customers. Using the correct form and completing it with all necessary information is a critical step for us to provide you the service you need.

Certified Seed Samples

- Submit seed samples in the plastic sample bags which have the document pocket. **These bags are for certified seed only.**
- Complete a Seed Samplers Report (SFN 50307) and insert into the document pocket. One sample-one report.
 - Each bin of clean seed is a separate lot which requires its own sample and samplers report.
- Samplers Reports are for certified seed and official samples. Forms are available on our website.
- Instructions for completing the form are in the appendix of the Seed Conditioners Manual (online).
- Complete the form entirely; missing information will delay sample processing.
- Write your permit number next to your name (or company name) to ensure the sample is entered under the correct account.

Pre-germs/Re-germs for Carryover Seed

- Used the manila sample envelope
- If the pre-germ test result will be used for final certification, check the box and include the field number(s) on the envelope.
- When the conditioned sample is submitted for final certification testing, the lab sample number from this test must be included on the final Samplers Report in the Pre-Germ box. If you don't, we will automatically retest the seed. The most current germination test is the one used for the certification.
 - All the fields on the pre-germ test must match with all the fields listed on the Sampler Report; Otherwise the sample cannot be processed.
- When re-germinating/re-certifying carry over seed, complete the **Relabel Request for Carryover Certified Seed (SFN 61461)**.

Resale Requests

- Approved facilities are required to complete a **Resale Request for Certified Seed (SFN 62572)**
- The Resale request will need to be emailed along with the bulk certificate(s) to ndseed@ndseed.ndsu.edu.

Seed Sample Reminders
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From the Commissioner's Desk

Welcome back to another edition of Seed Journal. We take a short break from publication in summer months based on so many of our staff being involved with inspections and spending the bulk of their time on the road or in the field.

The range of work performed here is fairly broad, considering lab testing, field crop, potato seed certification and regulatory responsibilities all occur in the same place in North Dakota. It's also highly cyclical depending on the season and type of work performed. Inspection season is wrapping up right now with soybean harvest in full swing. Our field crop and potato certification inspectors inspected around 250,000 acres of field crops and 12,000 acres of potato in the 2025 season; 1-2 times in field crops and 3 times in potato.

As you also might expect of a relatively small organization/agency, our staff performs multiple duties throughout the course of a crop-year cycle. Cross training is (and must be) a thing here. Our program management team is proficient at identifying skillsets and aptitudes, providing training and moving people back and forth across program lines to provide service coverage in busy seasons.

Seed Lab staff- are usually hip-deep in seed samples from November through May. They catch a breath in June, and are off to field inspections of cereals and other field crops in July and August, and soybean in September and October. Their job descriptions reflect the dual roles required. We also operate a Diagnostic (seed health) Lab that is primarily a one-man show with some part-time help; Presley also performs field inspections, GHP/GAP audits and oversees our potato seedstocks tissue culture/greenhouse unit.

Potato Program staff-have an even-more expansive set of duties. Their priority is shipping point (tuber) inspection in spring and field inspection for seed certification purposes in

summer; but their jobs are much more diverse. Most of our potato inspection staff also assist with regulatory inspections, perform soybean inspections, oversee PCN soil survey work and work as auditors in the aforementioned GHP/GAP program. Busy crew!

Field Seed Program staff- We have Field Seed program specialists that have primary duties surrounding seed certification field-related inspections, but serve in a jack-of-all-trades mode throughout the field seed and other service areas. Just ask Ciara, Christy, Ashley or Wes how many program lines they cross during the year! Our entire Seed Regulatory Program is complementary to seed certification, in that all of our inspection staff flip back and forth between regulatory inspection/audit activity in spring and field seed inspection work in summer and fall. This same group also inspects and approves both seed conditioners and facilities that handle certified seed.

Our Support staff isn't immune from the crossover curse either. On any given day, you'll find them covering for each other in data input and management areas surrounding lab, field and/or potato programs. If someone has a hidden talent, we'll take advantage if possible. A good example is Sera, who came to the Department with a background in print layout and had some desktop IT experience. Once we figured this out, her duties expanded to newsletter/seed directory production, desktop support and in-house software operations. Christine, April and Sera are all on the front line of dealing with the public on a daily basis, and your first impression of us as public servants.

What I think you'll find if you deal with all of these folks is a strong sense of loyalty to our growers, seed industry and Department. Whether in staff meetings or training activities, we focus on the importance of good communication with each other and our growers. I always encourage growers to develop a relationship with their inspectors and vice-versa, and to stop by and meet the people on the other end of the phone call. If you do, I think you'll find a professional and helpful group at your service.

Best wishes for a safe and profitable harvest season,



Administrative Corner

Starr Thies, Business Manager

Hello, Seed Growers. You may have received a colorful blue mailing in mid-July. Research fees and annual reports of seed sold were both mailed out in early July, and due on September 1st. If you still haven't turned in your forms please do so as soon as possible, even if you haven't sold any seed. We will need the reports in order to enter the information and prevent you from getting future mailings.

A second mailing will be sent out by November to any growers who haven't turned in their forms. Please be on the lookout for these forms.

Annual Update to Online Account

Once a year, our online system will ask you to verify and update your information. You will not be able to go further in the system until you click the 'update' icon. Please do not actually change your information. If changes need to be made, send an email to ndseed@ndseed.ndsu.edu. We will make the changes in the database for you which will automatically make the changes to your account.

Ken Bertsch.....State Seed Commissioner
Adam Winchester.....Director, Potato Program
Jason Goltz.....Field Seed Program Manager
Phillip Aipperspach....Regulatory Program Manager
Jeanna Mueller.....Seed Laboratory Manager
Presley Mosher...Diagnostic Laboratory Mgr, Editor
Starr ThiesBusiness Manager
Robert Sauter.....Potato Program Supervisor
Ciara Clark.....Field Seed Specialist, Asst Editor
Sera Axtman.....Design and Layout

Facility Inspection Reminders

Ciara Clark, Field Seed Specialist



Facility inspections are getting underway and I want to take this opportunity to remind our customers of a few things:

- You must have your bulk retail or conditioning facility inspected if you will be selling or cleaning certified seed.
- If you purchase certified seed, you must submit the Resale Request for Certified Seed form along with the Bulk Certificate you received when purchasing the seed to the State Seed Department to get it relabeled into your name before you may re-sell the seed. It is best to email this to ndseed@ndseed.ndsu.edu to ensure your request is processed in a timely manner.
- You must send a Bulk Certificate with you listed as the labeler with each truck load of certified seed that you sell.
- If you are a conditioner buying dirty field inspected seed from the grower to clean and label in your name, the grower must sign the grower's declaration found on the bottom of the Seed Sampler's Report.
- All seed stored in approved bins must be labeled. Certified seed must have class, variety and lot number. Common seed must have the variety and lot number. Dirty field inspected seed must have field number(s).
- You must keep all records associated with a seed lot for three years past final disposition of the seed lot.
- You must keep a sample for one year past disposition of the seed lot and the sample must have the class, variety and lot number on it (or copy of the seed certificate summary).

If you have any questions pertaining to bulk retail or conditioning facilities or the certified seed process in general, please do not hesitate to reach out to me at cclark@ndseed.ndsu.edu or 701-797-7201.

Werth Donation

The Seed Department received a wonderful, and generous, surprise in July. Long-time certified seed growers Marlow and Sandy Werth donated \$10,000 to the Department to be used, as Marlow said "the best way you folks can make use of it".

The Werth's, having recently retired from seed production and conditioning, donated to numerous areas and entities that had an impact on their agricultural careers. As Marlow stated "We made a living farming; we made our money in the seed business. You folks did great work for us over the years, we want to give a little back. Use this to help improve your programs."

In discussion with Field Seed/Lab Program staff, it was decided to use the funds for something we wouldn't usually invest in; a luxury item, so to speak. This Tagarno Trend +4 lens microscope has a wide magnification range of 1.3x-330x.

Ken Bertsch, Seed Commissioner said "This was such an unusual situation, we actually had to check with OMB to see if we could accept a gift. I can't thank Marlow and Sandy enough for their generosity. This equipment will benefit our laboratories and the users of our lab services for years to come".

The new equipment will be used for high-resolution seed and weed identification, and cataloging both.

Although we typically are working with field crops (larger seeds) we occasionally receive native mixes in that contain smaller seeds. The range of magnification allows us to observe a wide range of seed sizes.

Not only will the digital microscope help with weed/crop identification, it will help with training an analyst to be proficient with other testing methods as well. The microscope will magnify images on a screen so two analysts can look at the same image simultaneously.

Jeanna Mueller, Seed Lab Manager said "This is really a special gift from Marlow and Sandy, who recognize the value of giving back to aid in quality seed testing for years to come. Our lab can also share images electronically with other seed analysts whom may be helping us identify a seed species, or share images of seeds or seedlings with growers to help them better understand what we are seeing".

"This microscope will provide greater clarity in identifying plant pathogens in the Diagnostic Lab" according to Presley Mosher, Diagnostic Lab Manager. "We are excited to have the ability to capture high-quality images to share with researchers and collaborators. This is especially important in getting the timely second opinion of experts who could be across the country. We're incredibly grateful for this generous gift."



Pictured: Marlow and Sandy Werth with the microscope purchased using their donation.

True-to-Type Test

Presley Mosher, Diagnostic Lab Manager

The NDSSD Potato Seedstocks program provides high quality early generation seed to growers in the form of minitubers. Minitubers are the initial generation utilized in certified seed potato production systems. They start from disease-free tissue culture maintained in our “bank” or collection of over 150 line selections of a multitude of varieties. These tissue cultures are increased in our lab, planted in our on-site greenhouse and harvested as the resulting minitubers.

Tissue culture lines are clones of individual tubers that display exemplary characteristics of a given variety. These line selections are maintained for years, however the risk of cultures mutating is a concern. As a protection against these changes, we conduct a field grow out of every line in our tissue culture bank. Additionally, growing out new additions to our bank is an independent verification of these clones’ characteristics prior to using them to produce seed. This year the “True-to-Type Test” was conducted at the NDSU Research plot near Inkster, ND.

Tissue culture plantlets are carefully transplanted to flats of soil to harden off for several weeks indoors before being transplanted to the field. After several months of careful attention, plants from each line are harvested and tuber characteristics are evaluated. Any differences in appearance or performance of each line is recorded. Particular attention is given to skin set and tuber set and size. If deviations are identified, the clone is retired from use.

This year’s test wouldn’t have been possible without the help of many contributors. Thank you Dean Peterson and Russell Benz with NDSU Plant Pathology and NDSSD staff including Brianna Tufte and Dylan Seaver in the lab, and Grace Roeber, Seth Mathison, Amanda Monson, Robert Sauter, and Adam Winchester in the field.



Adam Winchester and Presley Mosher evaluate a collection of red-skinned potato variety lines. The True-to-Type test confirms that each tissue culture line will produce tubers with the expected varietal characteristics, including skin color.

Some Thoughts on the Future

Adam Winchester, Director of Potato Programs

Now that summer inspections are over, it’s time to consider what’s coming in the future. The North Dakota Seed Potato Industry experienced a massive increase in yellow acres in 2025 over 2024. In 2024, 390.94 acres of yellow certified seed potatoes were grown in North Dakota; in 2025, that number increased to 717.23 acres.

Fontane, a long processing variety of Dutch origin, is the main contributor to this growth. Between 2024 and 2025 acreage for this variety grew substantially, from 29.7 acres in 2024 to 191.9 acres in 2025. Agristo, a Belgian family owned company that specializes in the production of frozen potato products, is driving this expansion. A new Agristo processing plant is scheduled to break ground in Spring of 2026 in Grand Forks, which will heavily utilize this particular variety.

The introduction of yellow varieties in general, and Fontane in particular, to the North Dakota Seed Potato Industry is a reason for hope. Fontane is an early maturing variety with high yield potential and is suitable for dryland production. Though not strongly resistant to PVY, it has demonstrated a higher level of tolerance to the disease than other commercial potato varieties, such as Yukon Gold. NDSSD potato inspectors often mention

the variety’s uniformity in both the plants and tubers.

There are other reasons to be hopeful about North Dakota’s embrace of yellow potato varieties: it shows a keen understanding of future market trends. Yellow varieties have proven popular with the Millennial Generation, which is now the largest consumer base in the country. While some other states have been slow to grow the yellow industry, North Dakota’s seed potato growers are thinking many years ahead. I predict an even stronger potato industry in the future.

Aipperspach Joins Seed Department

Phillip Aipperspach joined the department in April as our new Regulatory Manager. Originally from a family farm in Wishek, he holds a BS from NDSU in Crop and Weed Science. He has a wealth of experience in the seed industry from time in quality assurance, seed conditioning, field inspecting and research roles. His most recent work involved overseeing plant operations at Remington Seed. It’s been a busy season of regulatory and field work and we’re glad to have him as a member of our team.

Germination Test vs. TZ Test

Jeanna Mueller, Seed Lab Manager

By the time this article is published the combines are rolling in full force. The early grains have been harvested, later fields are being harvested and most producers are looking to the next crop. There is always the anticipation in the fall to see what the end result will be in the field. For the producer, customer and seed control agents that end result is very important. Many of these customers are requesting a tetrazolium (TZ) test and a germination test, the reason I am not completely sure. We have received many questions this fall about TZ vs. germination testing.

In the AOSA Rules for Testing Seeds, germination is defined as “the emergence and development from the seed embryo of those essential structures that, for the kind of seed in question are indicative of the ability to produce a normal plant under favorable conditions”. In the AOSA Rules for Testing Seeds, a tetrazolium test is “a biochemical seed viability test using the compound triphenyl tetrazolium chloride (TTC). Seeds are prepared and exposed to a solution containing TTC. The TTC is reduced to formazan in the presence of living (actively respiring) tissue. Formazan stains the living tissue red. At the end of the test, seeds are evaluated for the viability of their essential structures and examined for the evidence of seed deterioration.” To answer simply which is better would be a disservice to the nature of seed quality testing. In quality seed testing, many tests work hand in hand to produce an accurate result. When reading a germination test, we quantify normal and abnormal seedlings, dead and hard seeds. TZ testing is quantifying viable seed. So instead of answering the question, we need to find out what is right for the customer and the situation.

Listed below are four reasons for performing a tetrazolium test (taken from AOSA Rules for Testing Seeds):

- 1) To determine the viability of ungerminated seeds at the end of a standard germination test.
- 2) To determine the percentage of dormant seed when a separate standard germination test is required.
- 3) To estimate viability of a seed lot before completion of a germination test or to estimate viability independently of a germination test.
- 4) The tetrazolium test may also be used as a vigor test.

For native forbs and grass samples we receive in the lab we typically handle TZ tests for the first two reasons. If we plan ahead, the third reason is not an issue. Now is the time to send in native grasses and especially mixes. Our busy time is January until planting.

We are here to serve you and if you have questions give us a call. We hope you have a safe harvest season.

Seed Sample Reminders

continued from front page

- Without the completed form and bulk certificates, we may not have enough information to complete the request.

Common Seed Samples (Any seed not in the certification program)

- Sample should be submitted in the manila sample envelope. Sturdy Ziploc style bags can work if the envelopes are unavailable.
- The envelope is the form and has all the information we require when filled out. Or, you can use a Lab Test Request Form (SFN 61461)

All forms are available on our website. Samples arriving without the required information will be set aside until we have time to contact you. Please call or email (ndseed@ndseed.ndsu.edu) if you have any questions.

Label Your Work

Phillip Aipperspach, Regulatory Program Manager

“Label your work” is something that I commonly heard throughout my years in school. From Elementary school through College, instructors expressed the importance of informing your audience what you were showing them. Whether it's units on a math problem or citing a reference I was always reminded of the importance of labeling.

This reminder also can be applied to the seed industry. The seed being sold needs to be labeled so consumers know what they are buying. There are federal and state requirements that all seed sold for planting purposes be labeled and that the label in question accompanies the seed through transfer. This labeling requirement applies to all planting purposes including grain production, cover crops or even pollinator habitat.

One of the common regulatory calls we field are from people who purchased seed and did not receive a label with their purchase. This is usually followed with a promise to mail, e-mail or text a label at a later date. This practice is actually a violation of both the Federal Seed Act and ND State Seed Law which could lead to a fine of up to \$1,000 per violation. In cases where the seed is required to be certified, there is also a risk of a PVP violation if the seed has not yet passed certification prior to sale.

Bagged seed must have a tag sewn, adhered to, or printed on the bag. Totes, or mini-bulks, must have a tag or label in the pocket of the tote. In cases where multiple totes from the same lot are sold together, they must all be identified to match the accompanying tag or label. When moving bulk seed by truck, the label is considered part of the truck's manifest and would be included with any other required documents.

Labeling seed is not only important, it's the law. Additionally, it is also good customer service, which is a cornerstone of a successful business.

North Dakota State Seed Department

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NDSSD Calendar

Nov 11Veterans Day, office closed

Nov 27Thanksgiving, office closed

Dec 2-3NDAA Agribusiness Expo, The Delta by Marriott, Fargo

Dec 9NDCISA Western Regional meeting, Minot

Dec 10NDCISA Eastern Regional meeting, Grand Forks

Dec 25Christmas Day, office closed

Jan 1New Year's Day, office closed

Jan 20-21ND Grain Dealers Association Convention, Fargo