



The North Dakota Seed Journal

APRIL 2025

Newsletter of the North Dakota State Seed Department

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Field Inspection Application Reminders

Ciara Clark, Field Seed Specialist

With the snow melting and the weather warming up spring planting is on everyone's mind. Here are a few reminders to help ensure your field inspection applications are processed more efficiently.

- The deadline is June 15. Make sure to send in your field inspection applications before this date.
- A field must be continuous. If you cannot plant or harvest the field without having to enter from multiple locations, it needs to be considered multiple fields.
- A field may be in multiple tracts, quarters, or sections as long as it is a continuous field. Make sure to include the map for each section the field is in.
- FSA maps are required. Along with giving us the legal description of the field, it helps our inspectors have landmarks to ensure they are in the correct area.
- Bulk Certificates, labels, or tags for the seed lot planted must accompany the application. Only Foundation or Registered seed is eligible for field inspection. If you are requesting a QA inspection, a label or tag is still required as proof of seed source.
- If someone else is growing the seed for you, please include them as a contract grower. This gives our inspectors the opportunity to speak to the person growing the seed in case they have questions on maturity or harvest dates.
- Submit the correct payment for your application.
- Sign your application.

These few simple steps will help get applications processed through the system in a timely manner. As always, contact us with any questions. Wishing everyone a safe and speedy planting season!



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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Be watching your mail...

In July, we will be mailing out a package containing the following:

- Annual Report of Agricultural & Vegetable Seed (labeling fees)
- Research Fee Reports
- Carryover Seed Report (for seed grown in the 2024 crop year)

The deadline for returning these forms is September 1, 2025.

Remember to only pay fees on seed sold for planting purposes. Both the Annual Report of Agricultural & Vegetable Seed Sold in North Dakota and Research Fee Reports must be returned even if no sales were made.

The Carryover Seed Report, which includes both conditioned and unconditioned certified seed, must be returned by September 1st to be included in the 2026 Field Inspected Seed Directory.

From the Commissioner's Desk

The quarterly challenge of dreaming up a timely topic for Seed Journal is upon us.

Why the challenge? It's not as if there aren't plenty of agricultural topics to discuss. Federal farm program issues, and that proverbial can being kicked down the road? How about the Farm Service Agency; do we have one and where is the office? What about tariffs and the impact on the seed industry? I can't get a decent answer on the current status regarding tariffs on seed, which evidently varies depending on crop, and may change by April 2nd. Presley won't let me extend the deadline for submitting articles past this week, so I'm out of luck on the April 2nd date.

After a thorough and critical self-review of my abilities, I've decided on none of the above. The chaos associated with anything related to federal policy is beyond me. Predicting what may (or may not) happen on the federal front is a day-by-day exercise.

So, here's our annual reminder/primer on another topic-one that is grounded in federal policy/law but pertinent to all of us involved with the seed industry: variety protection. Given that much of our readership is either a seed grower, conditioner or retailer-centric audience, this may be preaching to the choir. However, a reminder of some basic rules is a reminder to communicate to buyers the importance of adhering to these important principals of intellectual property protection laws.

First, you hear about this topic from us because the Seed Department serves not only as the state's certification agent, but also as the seed regulatory authority for North Dakota. These duties are performed by multiple agencies in other states around the U.S. State seed

laws outline our responsibility to enforce labeling provisions AND enforcement of Plant Variety Protection (PVP). The code also provides for penalty provisions for violation of any and all of the regulatory responsibilities, including penalties up to \$10,000 per violation.

Regulatory program internal policies commonly assess labeling violations in a range from \$250-\$1,000, depending on a number of factors including frequency or repeat nature of labeling violations. We have never used the maximum level of penalty/fines for violations other than PVP; brownbagging of seed in layman terms. PVP violations are considered much more serious than an outdated germination or failure to accurately list weed seeds.

If a seller or buyer violates PVP, including PVP Title V (which requires that a variety be sold only as a class of certified seed), the Seed Department has the authority and responsibility to conduct an investigation and assess penalties in cases of violation of state and/or federal seed laws. Our staff's #1 priority is educating the ag industry on Plant Variety Protection, its positive impact on variety development, and the requirements that extend to anyone purchasing and using protected varieties. The main thrust is nearly every seed variety in use is protected in some manner, most often by PVP Title V. While PVP Title V does contain a farmer replant exemption, the exemption only applies to crop produced on the original purchaser's farm.

What you probably know, but need to ensure your customers do as well: more and more varieties are being protected by single-use agreements, commonly called certified seed only (CSO) agreements. These agreements have been used for years in the soybean industry and are becoming more common in cereal crops.

The agreement language may be found in a hard-copy (usually single-page contract) form or on a tag statement under a grower responsibility section. Either type serves as a legally binding acknowledgement that the buyer agrees to use the product a single time. The grower responsibility section language may state

From the Commissioner's Desk
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Administrative Corner

Starr Thies, Business Manager

As warmer weather arrives we will need to do some account clean up before our fiscal year end on June 30th. As a state agency we are unable to carry credit balances on customer accounts into the new year. When you receive your monthly statement you may see a credit balance for items such as overpayments, duplicate payments, or canceled fields. You are invited to request a refund check at any time. However, if you have not used up your credit balance by late May and early June, we will be sending a refund check for the amount owed.

It is also very important to note as field inspection season nears to please check our website for our current service fees.

If you have any questions about your account balance, credit or otherwise, please feel free to contact me and request a refund. sthies@ndseed.ndsu.edu or accountspayable@ndseed.ndsu.edu.

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Noxious Weed Seed Examinations

Jeanna Mueller, Seed Lab Manager

As a seed seller or buyer it is very important to know what is in your seed. There is a variety of information listed on the report of analysis from a seed quality testing lab. It is very important to pay attention and understand the type of noxious weed seed examination performed. Below are the noxious weed seed examinations listed in the *AOSA Rules for Testing Seeds*:

1. USA (All States) Noxious Weed Seed Exam – a comprehensive exam for all state and federal noxious weed seeds based on the current USDA publication *State Noxious - Weed Seed Requirements*, recognized in the administration of the *Federal Seed Act*. If the examination excludes noxious weed seeds from one or more states or particular kinds of noxious weeds, this must be stated on the report of analysis.
2. Federal Noxious Weed Seed Exam – an examination for the presence of species declared as noxious weed seeds under *Federal Seed Act Regulations Section 201.16(b)*.
3. State Noxious Weed Seed Exam – an examination for the presence of species declared noxious weed seeds by a particular state. The state for which the examination is conducted must be stated on the report of analysis.
4. Undesirable Grass Species (UGS) –an examination for the presence of certain grass species declared by certain states as restricted when found in lawn and turf seed lots. The examination shall be based on the current USDA publication *State Noxious - Weed Seed Requirements*, recognized by the *Federal Seed Act*.
5. Canadian Noxious Weed Seed Exam – an examination for species declared as noxious weed seeds under the appropriate grade table designation for the kind of seed under consideration as specified under the current edition of the *Canada Weed Seeds Order*.
6. Foreign Noxious Weed Exam – an examination of species declared noxious weeds or undesirable by a foreign country. The country for which the examination is conducted must be stated on the report of analysis.

As a seed seller, when sending in a seed sample for testing, make sure to request the tests that most appropriately meet your requirements. As a seed buyer make sure the seed lot you are purchasing meets your testing needs.

USA Noxious Testing

Jason Goltz, Field Seed Program Manager

Seed lots must be labeled in accordance with the labeling laws of the state in which the seed is to be sold. To meet one of these requirements, seed moving from one state to another must have an additional test performed. An all-states noxious or USA noxious test will check the seed sample against a national list of noxious weeds.

Each year, the USDA will send out a request to state regulatory officials to update the USDA noxious weed seed list with any changes to their state noxious weed seed list. The USA noxious test is performed during the purity analysis and any weeds found are checked against the USDA list.

It is more common now for seed to cross state lines and some seedsmen have been issued violations from other states because they have not had the seed lot tested against the national list. Subsequently, we now have more people requesting the test after certification has been completed.

It is better to have the test performed during initial testing, rather than waiting until the seed crosses state lines and adding it later. When the test is added after certification, staff must find the sample in storage, reenter it into the database as a new test, before finally performing the test. This adds additional time and can result in additional fees. Having the USA noxious test done with the initial certification would add an additional \$30 to the testing, but would save time as well as the \$25 administrative fee for the extra work to add the test after certification has been completed.

When the USA noxious test has been completed, you should provide a copy of the lab report along with the bulk seed sales certificate to the customer. A bulk retailer should ask for the test results when purchasing the seed. If the initial labeler did not have the test performed, the bulk retailer should send in a two-pound sample with their resale request to have the USA noxious test done.

Please contact the Seed Department by calling 701-231-5400 or emailing ndseed@ndseed.ndsu.edu with any labeling questions.

GMO Trait Testing

Presley Mosher, *Diagnostic Lab Manager*

As genetically modified (GMO) crops have become a major share of production in the United States, so has the need for their identification in non-GMO seed lots. In most cases GMO seed looks identical to non-GMO seed and the only method of identification is through a lab test. GMO trait tests are useful in determining the presence and estimation of levels of GMO seed.

Trait testing for GMO seed can help to identify admixture in non-GMO seed sources. This is also useful for testing of commercial bulk grain for the presence of GMOs. Buyers may request a test of this kind prior to sale or delivery.

The NDSSD Diagnostic Lab offers a quantitative strip test that can simultaneously detect the presence of four unique GMO events used in soybeans. These include the CP4 EPSPS, DMO, PAT/pat, and 2m EPSPS events. Events are the transfer of specific genetic material that provides a desired effect in the crop species of interest. Examples of events include the transfer of an herbicide resistance gene into soybeans or an insect toxin gene into corn. Proteins associated with these events are what are detected in a strip test.

Various combinations of herbicide resistance events are used in XtendFlex®, LibertyLink®, GT27®, and Enlist E3® soybeans. Percent GMO for each trait is determined by the combined use of four test strips and utilization of specialized software and algorithms. Sensitivity is as low as 0.10% to 0.50% (Table 1.) Each test request requires one pound of seed from which three working samples are taken, providing greater accuracy in results.

Protein Name / Trade Name	Validated Sensitivity
CP4 EPSPS / Roundup Ready®	1 seed in 400 (0.25%)
DMO / Roundup Ready 2 Xtend®	1 seed in 400 (0.25%)
PAT/pat / LibertyLink®	1 seed in 200 (0.50%)
2m EPSPS / Balance GT27™	1 seed in 1000 (0.10%)

Table 1. Soybean GMO traits and validated sensitivity of strip tests used at NDSSD

The Diagnostic Lab also has the ability to onboard tests for additional GMO traits and crops. Please let us know if you are interested in GMO trait testing in other crops including corn, canola, and alfalfa. We are happy to start a conversation about the possibility of adding these tests to our lab services. The Diagnostic Lab can be reached at 701-231-5430 or pmosher@ndseed.ndsu.edu.

More Information is Needed to Detect PVY Strains in North Dakota

Adam Winchester, *Director of Potato Programs*

The majority of rejections of seed potato lots in North Dakota are due to Potato Virus Y (PVY). PVY levels are increasing in North Dakota, with 2023 and 2024 having the highest levels of the virus on record. This is a growing concern because PVY can cause yield loss and tuber quality issues in certain varieties. North Dakota seed potato growers are combating the virus through the use of crop oils, insecticides, and proven cultural control practices. These efforts are often effective, but the virus is proving difficult to control. This is because PVY is a pathogen that is constantly adapting.

Potato Virus Y has changed a great deal in the last 20 years. Until relatively recently, the most common strain of PVY was PVY^o. PVY^o is considered the original or common strain, existing in potato populations for many years. Plants infected with the PVY^o often show very good visual symptoms, significantly reduced yield, but no tuber necrosis. This is no longer the dominant strain and has been replaced by PVY^{NWI} (Wilga) and PVY^{NTN}. These strains produce mild symptoms on vines with less

yield loss. PVY^{NTN} is of particular concern to processing growers, since the strain can cause tuber necrosis in some varieties.

Surveys have been conducted in the Pacific Northwest, Michigan and Wisconsin to identify which strains are the most common in those states. Researchers are finding that PVY^{NWI} is more common than PVY^{NTN}. Though a great deal of data has been collected on PVY levels on seed farms across the state, knowledge of the prevalence of different PVY strains in North Dakota is lacking.

The North Dakota State Seed Department, in conjunction with Dr. Julie Pasche of North Dakota State University, is hoping to make efforts towards collecting more data on these strains in the coming years. We plan to accomplish this through sampling and trialing different varieties and utilizing the 2025 winter test plot in Waialua, Hawaii to find known positives and identify their specific strains. This information will then be shared with growers to aid in their respective management strategies.

From the Commissioner's Desk

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something to the effect of “grower agrees to...use seed solely for planting and producing a single crop and not to save any grain produced from seed for planting by grower or any other person or entity...”

Here is the tricky part: The Seed Department's regulatory authority does not extend to single use agreements or plant patents; both are the sole responsibility of the variety owner to enforce. However, if a CSO variety is protected under PVP (usually PVP 94, rather than Title V), we still retain responsibility to enforce variety protection under state seed laws. In other words, we cannot enforce the single-use part of binding acknowledgement if a variety is illegally replanted. However, we are required to pursue a violation if that product is sold or otherwise transferred to another farm/grower just like any other PVP violation situation. As stated above, the Department has no regulatory authority/responsibility regarding plant patents.

We've even addressed the CSO issues in administrative rules, creating a statement reading “In the absence of contractual obligations between the variety owner and a first purchaser, a farmer may replant seed varieties protected by plant variety protection for an indeterminate length of time provide the exemptions listed in ND Century Code sections 4.1-53-61 and 4.1-53-57 are complied with in full.” (4.1-53-61 and 4.1-53-57 are applicability and exemption chapters)

The “contractual obligations” terminology is important. The contractual obligations, previously referred to as an acknowledgement, means that regardless of PVP (even PVP Title V) status...thou shalt not replant a CSO variety. And to clarify the point; the Seed Department must enforce if the CSO seed variety is illegally transferred, but the variety owner enforces their rights under the single use agreement.

Is this chaotic enough for you? If in doubt, don't hesitate to call and Jason or I can walk you through any confusion surrounding variety protection or single use agreements.

Best wishes for a safe and successful planting season,



Labeling Seed Mixtures and Blends

Jason Goltz, Field Seed Program Manager

Cover crops have grown in popularity over the last several years for a variety of reasons. Whether planted for erosion control, grazing or habitat, it must be labeled; therefore, it is important to understand what must be on a label.

The component with the highest percentage must be listed first, followed by the next highest and so on. The term ‘Variety Not Stated’ must be used for crop kinds which do not require the use of a variety name. Each variety that is protected under the Plant Variety Protection Act must be labeled by identifying it as a protected variety. The component variety name will be identified with an asterisk (e.g., ND Genesis*). The PVP statement (*Unauthorized Propagation Prohibited – U.S. Protected Variety) must be somewhere on the label.

The germination percentage and date are listed for each component, but the purity analysis is listed for the overall mix. The percentages of pure seed for each component and the overall percentages of weed seed, other crop seed and inert matter must equal 100%. The origin for each component must be included, as well as the term ‘mixture’ or ‘blend’. There is a difference, a **mixture** consists of more than one kind and a **blend** consists of the same kinds but different varieties. Lastly, the name and address of the labeler must be clearly printed on the label. Any additional information may be included as long as it is truthful.

The records for the mixture must include those for each component. In the event of a problem with the mixture, each component must be traceable to its origin by records. Bulk certificates or certified tags must be retained for certified seed components. When retesting a seed mixture, a copy of the tag must be included with the lab test request form. The seed lab will have to separate the sample into its primary components, which incurs an additional fee. Because sampling mixtures can be challenging, including the tag will allow the lab to determine if all components are present in the sample. Seed mixtures are commonly used for cover crops and grass seed. These types of seed mixtures can result in very extensive and detailed tags.

Administrative News

April Dietz has joined our administrative services team in the role of Admin Assistant specializing in Potato Services, as of February. She will be replacing Jolene Demarais, who retired in early January. April has worked with the department since 2019, in both the Potato Seedstocks Greenhouse and Diagnostic Lab. Her experience with the department, proven track record, and great work ethic are a welcome addition to our group.

North Dakota State Seed Department

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NDSSD Calendar

May 1.....Applications due for grass inspection

May 26.....Memorial Day, office closed

June 15.....Applications due for all crops including potato (except buckwheat, millet,
& soybeans requiring a single inspection)

July 4Independence Day, office closed

July 15Applications due for buckwheat and millet

Aug 1.....Applications due for soybeans requiring one inspection

Sept 1.....Reports due: Annual Report of Agricultural & Vegetable Seed Sold
(labeling fees), Research Fees; Carryover Seed; Applications for
Approved Conditioner & Bulk Retail Facilities

Sept 1.....Labor Day, office closed