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FORECAST FOR SOYBEAN APHID

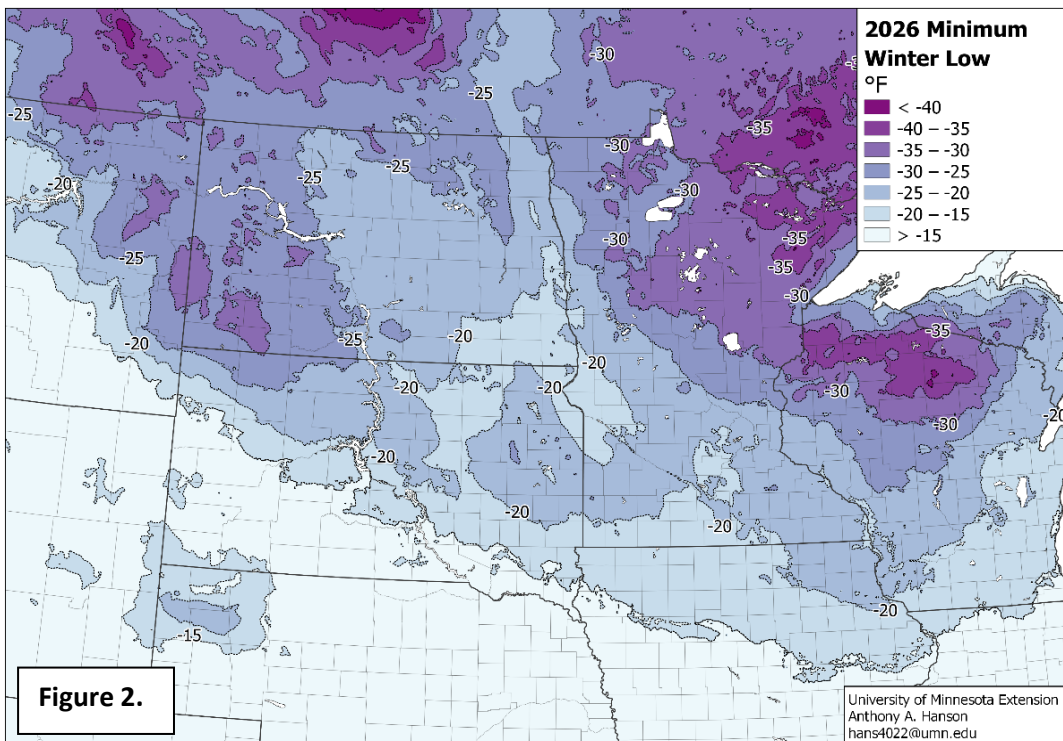
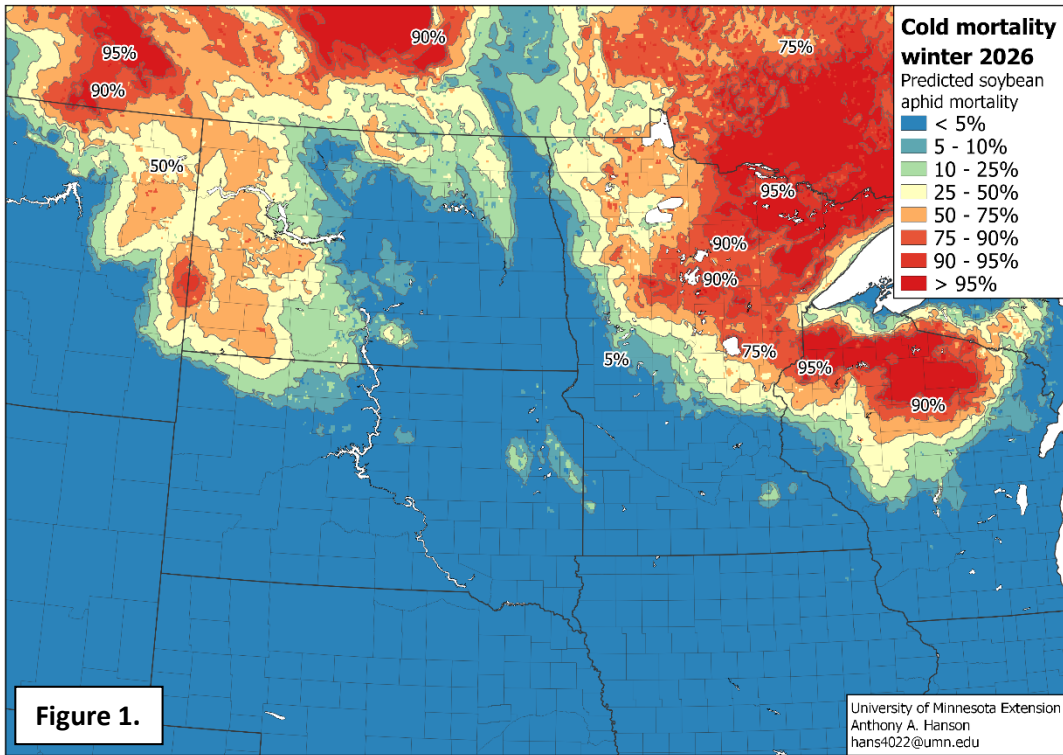
Air temperature is a strong predictor of winter cold mortality, because soybean aphid eggs overwinter on the buckthorn buds. The eggs will freeze between -25 and -35°F. Late-fall cold snaps can also cause freezing and dehydration, which can kill eggs.

In the Red River Valley, southeastern North Dakota, and parts of central North Dakota, soybean aphid mortality was less than 5% despite winter low temperatures ranging from -20 to -25°F. As we move into the northeast and north central regions, cold mortality increased to 10% to 75%, with winter low temperatures ranging from -25 to -35°F. Continuing farther into western North Dakota, predicted soybean aphid mortality ranged from 10% to 95% or higher, with winter low temperatures ranging from -30 to -35°F. (Fig. 1 & 2).

Based on winter low temperatures and cold mortality for soybean aphids, the forecast for the 2026 growing season suggests that far eastern areas of North Dakota will be at higher risk for economic populations of soybean aphids, especially in the Red River Valley, southeastern North Dakota, and parts of central North Dakota. Soybean aphid mortality was less than 5%. Looking back to 2018, soybean aphid populations were generally non-economic in North Dakota from 2018 to 2023. Despite high soybean aphid mortality in central to western North Dakota, soybean aphids can migrate long distances (100+ miles) and arrive in high numbers, especially when populations are high in southern neighboring states. Soybean aphids have a fast reproductive rate, doubling in 5 or more days when temperatures are in the low 80’s F. Scout weekly for soybean aphids and other soybean insect pests from late June into mid-August, especially later in the season (late July into mid-August).

Soybean aphid mortality in neighboring states to the south was predominantly less than 5%, with low temperatures ranging from -15 to -25 F.

For Minnesota’s insect forecast, see the following link on the MN Crop News: <https://blog-crop-news.extension.umn.edu/2026/02/is-it-cold-enough-yet-insect.html>



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WHEN AND HOW TO SCOUT FOR ALFALFA WEEVILS

Alfalfa weevil is becoming active as spring days grow warmer. Alfalfa weevil development is temperature-dependent, and degree-day models have been used to forecast its life stages (adult, egg, larva, pupa), the time to begin scouting (after 300 DD), when larval feeding damage might occur, and when control action might be necessary. The following degree-day model is used in North Dakota and neighboring states (Table 1). The 3rd- and 4th-instar larvae can cause significant leaf-feeding injury (defoliation) when populations are high (Figure 1).

You can generate your own alfalfa weevil degree day map by visiting the [NDAWN](https://ndawn.ndsu.nodak.edu/) website at <https://ndawn.ndsu.nodak.edu/>. Go to “Applications,” select “Insect Degree Days” and choose “Maps.”

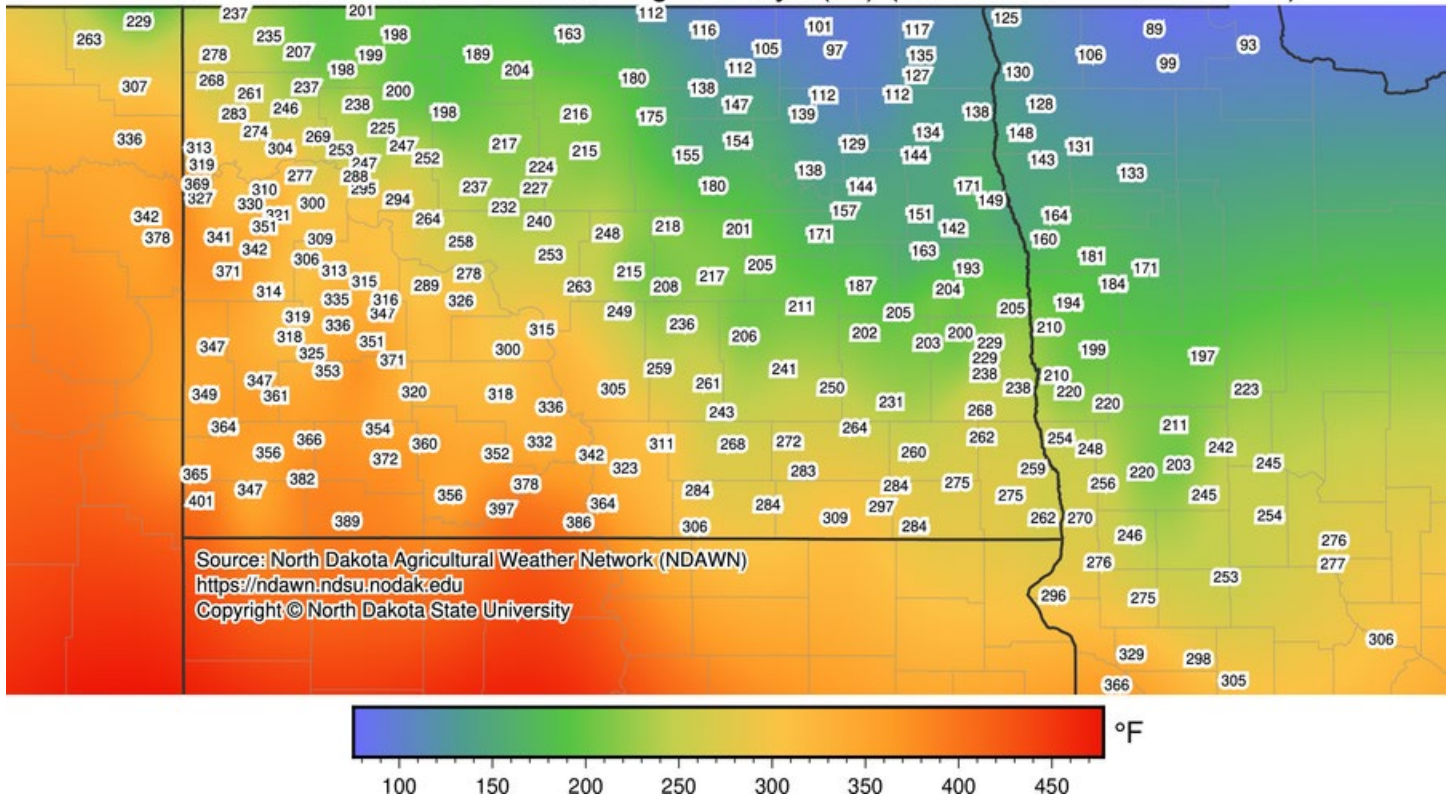
March 1 is used as the start date; select 48 F as the base temperature, then click “Submit” to generate the map. You can also generate accumulated degree day tables for individual weather stations. In the alfalfa weevil degree day map (below), you can see that most of the state is still too cold for egg hatch. However, egg hatch and 1st instar larval present are occurring in the southwest and far western border near Montana.

Table 1. Approximate degree day (DD) requirements for alfalfa weevil development using 48 F as the base developmental temperature.

Life Stage	DD Required to Complete Life Stage	Accumulated DD	Typical Feeding Activity
Egg hatch begins	300	300	
1st instar development	71	371	Light
2nd instar development	67	438	Light
3rd instar development	66	504	Heavy
4th instar development	91	595	Heavy
Pupation	219	814	
Adult emergence	—	>814	

The model assumes no overwintering egg survival.

Accumulated Base 48 Insect Degree Days (°F) (2026-03-01 - 2026-05-11)



Scouting should begin immediately after egg hatch, and fields should be scouted weekly up through the first cutting. Fields should be scouted in a “W” pattern or by selecting random sites in the field, with a minimum of five sampling sites per field. Be sure your sampling pattern is representative of the entire field. Don’t scout only along the edges or in small areas.

For sampling before the first cutting, you will need sharp pruning shears; a clean, white 5-gallon bucket; a hand lens; a yardstick for measuring plant height; and a pencil, paper and a calculator.

At each sampling site, collect a minimum of 30 alfalfa stems by cutting them at the base. Place stems upside down in a 5-gallon pail and vigorously shake or beat them to dislodge larvae (Figure 2). Because first-instar larvae may remain hidden in rolled leaf tips, inspect leaf tips carefully. Record the number of stems sampled, total larvae counted, and alfalfa height at each site. After sampling the field, calculate the average number of larvae per stem and the average plant height for the field.



Figure 1. Alfalfa weevil larval defoliation. Note the frosted appearance of the crop (Patrick Beauzay, NDSU)



Figure 2. Alfalfa weevil larvae collected during the 30-stem bucket sampling method (Patrick Beauzay, NDSU)

A quicker but less accurate method is to visually estimate percent defoliation at each sampling site and calculate a field average. Visual estimates can vary among observers and may overestimate or underestimate injury.

Sweep nets are not recommended for quantitative sampling because results are highly variable. However, they may be used to detect the presence of alfalfa weevil adults and larvae. Once detected, use the 30-stem sampling method for an accurate assessment.

For more information, see the NDSU [Extension Integrated Pest Management of Alfalfa Weevil in North Dakota](#) (E1676, Revised March 2026). Stay tuned for more information on *Alfalfa Weevil - Economic Thresholds and Pest Management* in next week's issue of the *Crop & Pest Report*.

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plant pathology

HOW DO MY SOIL CONDITIONS DRIVE DISEASE DEVELOPMENT IN MY CROPS?

This article is meant as a reminder that environmental conditions during and shortly after planting can strongly influence the development of seedling diseases and root rots. While pathogens capable of causing root rot are often present in soils every year, the severity of that disease is largely driven by environmental stress. Factors such as excessive soil moisture, cool soil temperatures, fluctuating temperature conditions, and soil compaction can all increase the risk of root rot development and reduce early-season plant vigor. Root rot pathogens are diverse and may include organisms such as *Pythium*, *Phytophthora*, *Fusarium* & *Rhizoctonia*, depending on the crop and environment. Many of these pathogens become problems when conditions favor infection or when plants are stressed and slow to establish.

Excessive Soil Moisture: One of the most important environmental drivers of root rot development is excessive soil moisture. Saturated soils reduce oxygen availability around developing roots, creating stress conditions that weaken seedling defenses and slow root growth. These wet conditions also favor several water-loving pathogens, particularly oomycetes such as *Pythium* and *Phytophthora*. Fields with standing water, poor drainage, low spots, or areas that remain saturated following rains are often at greatest risk. Under extended periods of wet conditions, seeds may germinate more slowly, seedlings may emerge unevenly, and root systems can become discolored and poorly developed. In severe cases, seedlings may rot before emergence,



***Rhizoctonia* root rot in soybeans**

resulting in reduced stand establishment. These wet conditions are especially problematic shortly after planting when seeds are beginning to imbibe water and emerge. If rainfall events occur during this critical period, pathogens can rapidly infect vulnerable seedlings before plants are able to establish healthy root systems.

Cool Soil Temperatures: Temperature also plays a major role in root rot development. Cool soils slow seed germination and emergence, thus extending the amount of time seedlings remain vulnerable to infection. Many root rot pathogens are capable of infecting seeds and seedlings long before plants are able to emerge through the soil surface. For soybean, emergence is often delayed when soil temperatures remain below approximately 55°F. Corn and dry beans can experience similar delays under cool conditions. When emergence is slowed, pathogens have a longer window of opportunity to infect developing roots and hypocotyl tissues. Cool and wet conditions together are particularly favorable for diseases caused by *Pythium* spp. In contrast, some pathogens such as *Rhizoctonia* may become more aggressive

under warmer soil conditions, especially when seedlings are stressed by uneven moisture conditions or crusting soils. This demonstrates the intricacy of the environmental conditions that lead to root rots and how they often have complex interactions.

Temperature Fluctuations and Seedling Stress: Large swings in soil temperature can also contribute to disease development. Seeds and emerging seedlings are sensitive to environmental stress during germination, and rapid fluctuations between warm daytime temperatures and cold nighttime temperatures may slow growth or injure young tissues. In North Dakota, it is incredibly common to experience warm planting conditions followed by cold rainfall events or steep overnight temperature drops and the inverse can also be true. These rapid changes can stress seedlings and reduce their ability to outgrow minor infections. In some situations, injury from chilling stress may resemble root rot symptoms, making diagnosis more challenging. Temperature fluctuations may also influence pathogen activity differently. Some pathogens remain active under cooler conditions, while plant growth slows substantially. This constant shift or imbalance in temperatures can favor infection (such as *Fusarium* in small grains) and disease establishment early in the season.

Soil Compaction and Restricted Root Development: Compacted soils are another major contributor to root rot development and overall root health problems. Soil compaction restricts root growth, limits oxygen movement, reduces water infiltration, and increases the amount of time soils remain saturated following rainfall. These conditions collectively favor root rot development. This is especially critical for the Red River Valley as compaction is a common issue. Compacted layers can physically restrict root penetration, resulting in shallow or poorly developed root systems that are more vulnerable to infection and environmental stress. In many cases, root rot pathogens exploit these weakened root systems and further exacerbate injury. One example that comes to mind is sudden death syndrome in soybean which will develop at higher levels under compacted soil conditions.

As your planting continues over the next few weeks, remember to keep in mind how these environmental conditions and can impact your crops.

NEW WEEKLY SEGMENT IN PLANT PATHOLOGY

This year the NDSU Extension Plant Pathologists are trying something new to bring awareness to plant diseases in the crops we grow in North Dakota. This weekly segment will be following a sport's theme in 2026 (Featured Matchup) and highlight basic information regarding a plant disease. The information within these segments will include the disease(s) of interest (Players to Watch), where and when you might see the disease (Scouting Report), sign and symptoms (Opponent's Game Plan), favorable conditions for disease development (Opponent's Strengths), management tools (Opponent's Weaknesses), and interesting facts regarding the plant disease (Trick Plays to Watch). The 'Featured Matchups' will also be highlighted through NDSU Extension social media, so stay tuned!

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Extension Plant Pathology, Soybeans

[Eric Branch](#)

Extension Plant Pathology, Sugarbeets

[Andrew Friskop](#)

Extension Plant Pathology, Small Grains and Corn

[Sam Markell](#)

Extension Plant Pathology, Broadleaves

FEATURED MATCHUP:**NDSU Plant Pathologists Vs. Root Rots in Wheat and Barley**Players to Watch:

- Pythium Root Rot (*Pythium sp.*)
- Fusarium Root, Crown and Foot Rot (*Fusarium sp.*)
- Common Root Rot (*Bipolaris sorokiniana*)

Scouting Report:

- Can be observed at emergence until maturity
- Can occur sporadically or in pockets
- Can be slow growing with early season infections resulting in late season symptoms

Opponent's Game Plan:

- Discolored (often brown) roots and crowns (Figures A and B)
- Seedling death
- Stand reduction (Figure C)
- White heads and stems at end of season

Opponent's Strengths:

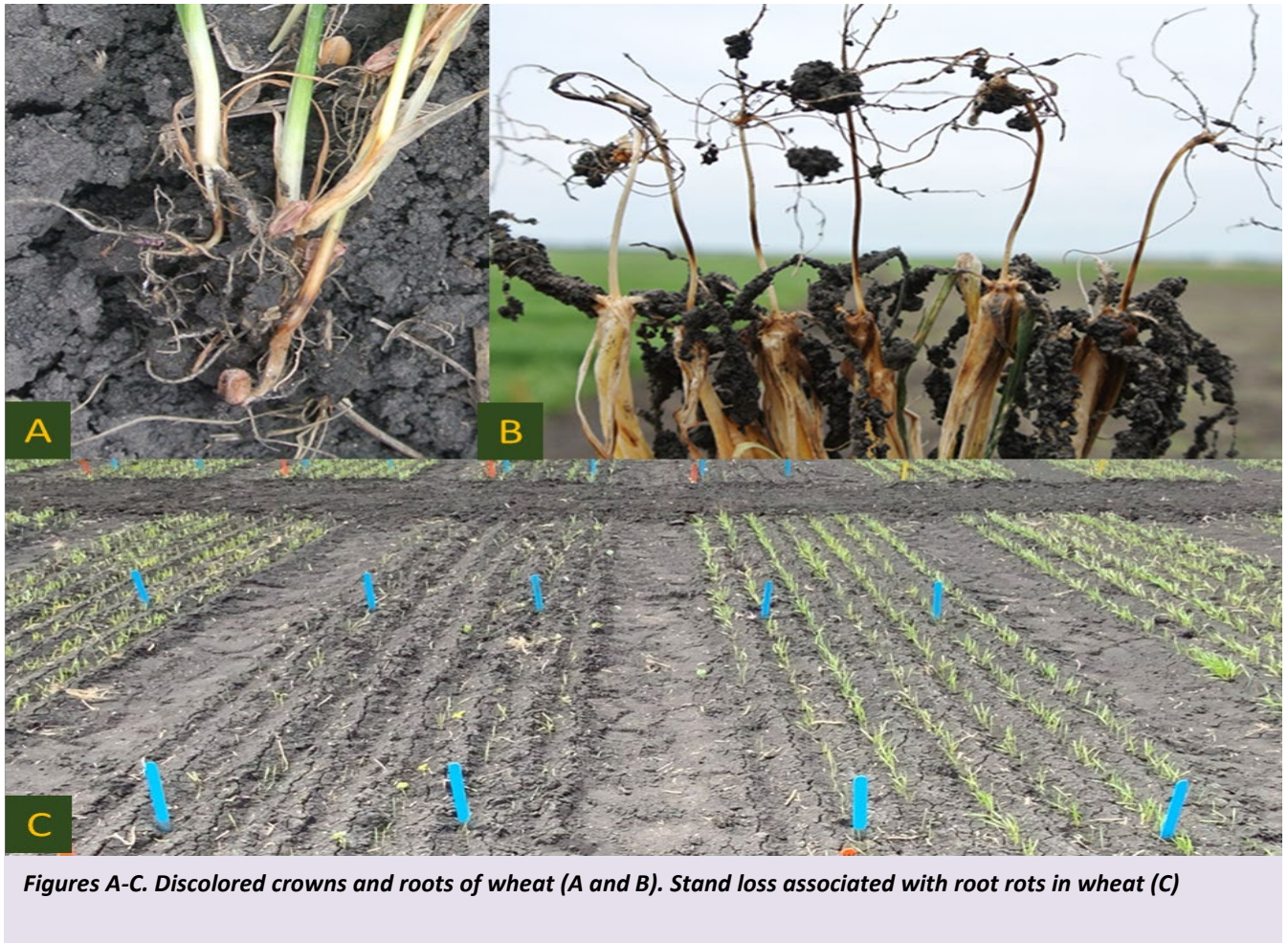
- Pythium Root Rot – Cool (50-65F) and wet soils
- Fusarium Root Rot – Wide temperature range (above 60F), wet or dry soils, and frequently linked to stressed conditions
- Common Root Rot – Wide temperature range (above 60F), wet or dry soils, and frequently linked to stressed conditions

Opponent's Weaknesses:

- Crop rotation
- Avoiding stressful planting conditions
- Genetic resistance (not fully understood)
- Fungicide seed treatment (14-21 days of effectiveness)

Trick Play to Watch:

- Small grain root rots often occur in a complex with more than one disease being present in the same field.



[Andrew Friskop](#)

Extension Plant Pathology, Small Grains and Corn



GETTING SOYBEANS OFF TO A STRONG START

Uniform soybean emergence is one of the first steps toward maximizing yield potential. A common issue in soybean fields is planting seeds deeper than intended, especially when using drills or air seeders. Poor depth control can delay emergence and create uneven stands. Soybean seed is highly sensitive to planting depth, and uneven emergence can reduce productivity before the crop has fully established. Even when only part of the stand emerges a few days later than the rest, yield losses of around 8% can occur because of uneven plant development and competition within the canopy. For this reason, taking time to check planting depth throughout the day is an important management practice.

Soil moisture is the most critical factor for soybean germination. Soybean seed must absorb approximately 50% of its weight in water before germination can begin. Because of this, soybeans should ideally be planted into at least 0.5

inches of moist soil. Under dry planting conditions, producers may need to place seed deeper to reach adequate moisture. When deeper planting is necessary, selecting varieties with strong emergence scores can help improve emergence success. Larger seeds generally contain greater energy reserves and may emerge better from deeper planting depths in coarse-textured soils. However, large cotyledons can have more difficulty breaking through soil crusts, so shallower planting is often preferred in fields prone to crusting. Shallow planting (closer to 1 inch) can help avoid crusting and temperature swings, but only if moisture is adequate to prevent germination stress

Equipment setup also plays an important role in stand establishment. Planters tend to provide more consistent depth control, but drills and air seeders can achieve good results when properly adjusted and maintained. Closing wheels, gauge wheels, down pressure, and opener condition should all be checked before and during planting. In no-till or high-residue systems, ensuring good seed-to-soil contact becomes even more important. New planting technologies, including automated depth adjustment and soil moisture sensing systems, are helping improve planting accuracy across varying field conditions. However, regardless of the equipment being used, physically checking planting depth in the field remains one of the best management practices producers can follow.

Stopping periodically during planting to dig seed and verify depth, seed placement, and moisture conditions can help avoid uneven emergence problems later in the season. Paying attention to these details at planting can help create a more uniform stand and provide soybeans with the best possible start to the growing season.

Want to know more? I found [this article](#) on reconfiguring planting units on no-till drills. Let me know what you think!

BEAN THERE, COOKED THAT

NDSU Extension is hosting a webinar to highlight the nutritional value and market potential of dry beans. In this webinar, we explore an exciting new dry bean product: “Popping Beans,” which has the texture of popcorn and the protein content of beans. This promising innovation may help expand markets for dry beans. We will also discuss ongoing efforts to increase protein content in dry beans and share management practices that can help farmers produce beans with higher nutritional value. Join us for a different kind of webinar: [Bean There, Cooked That: Unpacking the Nutritional Power of Dry Beans | NDSU Agriculture](#)

[Ana Carcedo](#)

Broadleaf Agronomist



ARE WE QUEUING UP FOR A BAD IDC YEAR?

Although planting is progressing slowly across the state, recent USDA reports estimate another increase in North Dakota soybean acreage. With this increase in acreage come more chances for problems—and for soybeans in North Dakota, this means more IDC! The factor common in all soils giving rise to IDC is the presence of calcium carbonate in the topsoil. Calcium carbonate buffers the soil pH around 8, where iron solubility is very low. The aggravating factors of IDC are bicarbonate, nitrate, and salinity. Wet conditions favor the accumulation of bicarbonate (HCO_3^-) in the soil solution, which promotes IDC. But, prolonged drying of the soil favors upwards movement of salts and nitrates, which can also promote IDC. Some of our worst years for IDC have been when the season started off after a long drying period.

While last year, the greatest facilitating factor for IDC was as the wet conditions, as discussed in the [August 7th, 2025 Crop and Pest Report](#) article *What causes mid-season IDC in soybeans?*, this year we are facing another set of aggravating factors, brought to us by the relatively dry soil conditions: salt and nitrate.

Wet followed by dry conditions last year facilitated the upward movement of salts, which are painfully visible along road ditches and closed depressions across North Dakota (and for the yearly reminder, tilling saline spots will NOT fix the problem, it will only serve to make it worse). While the presence of carbonates is the primary causative factor of IDC, increasing salinity levels greatly increase IDC severity, with EC levels at or above 1 mmho/cm causing medium to extreme IDC risks. Any soil salinity will produce lower yield than a non-saline field, and when it comes to IDC, salinity only serves to increase stress on the plant further reducing productivity.

In 2025, we had great conditions for N mineralization across the state, leading to very high nitrate-N levels in some fields. Each year, AGVISE Laboratories publishes a comprehensive [Soil Test Summary](#), in 2025 following corn, approximately 10% of fields in North Dakota and adjoining regions had greater than 100 lb/ac of nitrate-N (Figure 1; Check out the [AGVISE Soil Test Summary 2025](#) for more information). While high nitrate levels can be a good thing for N-demanding crops, excess intensifies IDC in soybeans. With N fertilizer prices well above the five-year average, urea averaging \$0.94/lb N, considerations should have been made to avoid planting soybeans in these high residual-N fields, opting instead for a crop with will utilize the nitrate. A general rule of thumb is soil with nitrate-N levels greater than 80 lb/acre, severely increase IDC risk (thanks to support from the ND Soybean Council, we are working on a project this year to further evaluate and refine this recommendation—stay tuned!).

Recognizing there is no silver bullet for IDC, here are a few strategies to keep in mind:

- Your best, and cheapest, line of defense against IDC is to plant resistant varieties! Check out the [NDSU Soybean Variety Trial Results](#) for IDC severity ratings for common soybean varieties.
- Field selection! Fields where IDC is fought year-in and year-out (high salt, high carbonate), probably aren't fit for soybeans. Dead soybeans don't make very much profit compared to barley, for example, which would be able to tolerate these conditions.
- If it is necessary to plant soybean in a field with high residual N levels, small grain nurse crops can be used. One bushel per acre of oats seeded at soybean planting, and terminated with post-emergence herbicides will help to take-up the nitrates in and around the soybean's root zone which would otherwise increase IDC severity.
- Lastly, applying an ortho-ortho iron EDDHA in furrow at planting helps to make iron available to the young soybean plant. Keep in mind, an effective IDC prevention strategy does not rely on using ortho-ortho EDDHA alone, but on a comprehensive approach—check out the NDSU circular [Soybean Soil Fertility](#) for more information. A relatively new fertilizer FeHBED has also been introduced, and research at NDSU has established that this fertilizer is equivalent in effectiveness to a high-quality FeEDDHA product.

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RELEASE OF THE ENVIRONMENTAL PROTECTION AGENCY DRAFT FUNGICIDE STRATEGY FOR PUBLIC COMMENT

On May 1st 2026 the Environmental Protection Agency (EPA) released its draft fungicide strategy for public comment which can be found here: <https://www.regulations.gov/docket/EPA-HQ-OPP-2026-2973>. The fungicide strategy outlines how EPA plans to mitigate potential deleterious effects to federally listed endangered and threatened species or their critical habitat, from off-target pesticide exposure in accordance with the 1973 Endangered Species Act (ESA). Mitigations from the release of EPA's final insecticide and herbicide strategies are already making their way on to pesticide labels, the most recent of which included the new labels for the herbicides Engenia, Tavium, and Stryax; used for weed control in soybeans and cotton.

The public comment period is open until June 29th, 2026 and comments can be submitted here: <https://www.regulations.gov/>. The public comment period provides a crucial opportunity for all those with a stake in fungicide use to review the draft and help shape the final strategy by providing a range of different perspectives for EPA to consider.

For those interested in learning more, the EPA will host a public webinar on May 20th 2026 at 1:00 pm CT to provide an overview of the strategy and discuss the aspects of implementation. Registration for the webinar is required and can be found here: <https://events.gcc.teams.microsoft.com/event/96ee8669-31bb-4904-af77-4b790c6186b0@88b378b3-6748-4867-acf9-76aacbeca6a7>.

The final fungicide strategy is expected to be released by EPA no later than November of 2026.

[Madeleine Smith](#)
Pesticide Program Specialist



PLANTING SEASON STRESSES – WHEN IT'S OKAY NOT TO BE OKAY

Folks working all across the field of agriculture feel the stresses rising during planting season: Crop advisers giving guidance on planting decisions. Farmers in the field trying to get their crops in the ground or avoid storms. Lenders preparing for a tough conversation about debt levels or cost projections for the coming year.

Some seasons of the year bring their own pile-up of stresses, and during those times it's okay to recognize that "it's OK not to be OK." In other words—feel anxious, tired, uncertain, or frustrated. That's totally normal. You're not alone. Pretty much everyone else is feeling it too during planting season.

What If You're Not Feeling OK?

Again, it is OK not to be feeling OK in times of higher stress, whether during planting season or when dealing with an uncertain farm economy. But, ignoring your health is not the answer.

If you're withdrawing from activities, losing sleep, or being extra irritable to those around you, don't just "go it alone." Please remember the following:

- Take time to connect with resources that can support you and help you to be resilient in tough times.
- Reaching out for help isn't weakness; it's a sign of wisdom and strength.
- Recognize that you're not alone.
- Always remember that you can call 9-8-8 to get information about local resources or just talk, or contact your local county Extension office.

Access Helpful Resources

To learn more about available resources to assist in managing stress in agriculture, read the NDSU Extension publication FS1804, "Farming and Ranching in Tough Times" – link: [Farming and Ranching in Tough Times | NDSU Agriculture](#)

If you or someone you know is in need of mental health support, call or text the **9-8-8 Suicide and Crisis Lifeline**, or chat at <https://988lifeline.org>.

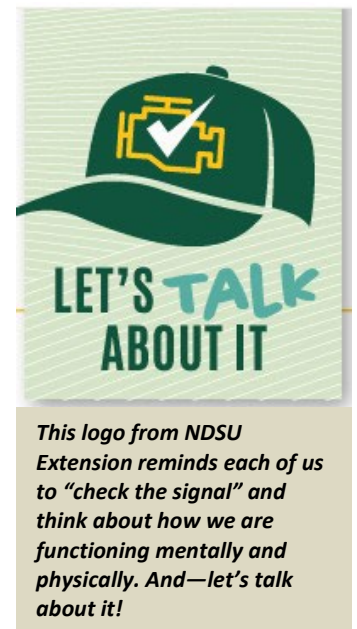
Contact your NDSU Extension county office or search the Web for *NDSU Extension farm stress* for more resources on wellness in agriculture.

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AROUND THE STATE

EVENTS

Crop Management Field School

Mark your calendars for the 2026 Crop Management Field School at the Carrington Research Extension Center Wednesday, June 24, 2026. The Field School will cover Weed Identification, Herbicide Site of Action, Crop Growth Staging, and Crop Nutrient Deficiencies and Soil Fertility. There will be an opportunity to obtain a total of 5 CCA CEU credits for this Field School.

The day starts with registration at 8:30 AM and the program concludes at 3:00 PM. Preregistration is necessary because we limit total participation to 50 people. The cost of the program is \$100 with a reduced rate for NDSU employees. The program is hands-on and participants will receive quality resources. For further information and to register for this event go to www.ndsu.ag/cmfs26.

[Jeff Stachler](#)

Extension Cropping Systems Specialist at the Carrington Research Extension Center

NORTHEAST ND

Planting is progressing across the region, with most areas reporting seeding of wheat, barley, and sugarbeets well underway. Potatoes, corn, canola, and soybeans are just beginning to be planted. Soil moisture conditions in the top two inches remain a concern, as many areas are reporting dry conditions with only minimal rainfall received. Persistent heavy winds are further drying soils, interfering with planting operations and causing loose soil to blow.



Spring wheat planted in Pembina County. Photo: Anitha Chirumamilla, LREC



Planting in progress in Cavalier County. Photo: Anitha Chirumamilla, LREC



*Heavy winds blowing salts and soil in Cavalier County.
Photo: Anitha Chirumamilla, LREC*



Saline spot in a field in Cavalier County. Photo: Anitha Chirumamilla, LREC

[Anitha Chirumamilla](#)

Extension Cropping Systems Specialist
Langdon Research Extension Center

SOUTH-CENTRAL/SOUTHEAST ND

The South-Central and Southeast Regions of ND include Emmons County in the southwest corner to Sheridan County in the northwest corner and then all the way to the Red River with Traill County in the northeast part of the region and Richland County on the southeast border of the region.



Figure 1: 2025 corn still needing to be harvested.

Figure 1 shows we are still dealing with the 2025 corn crop yet!

Soils are drying out on the surface and planting progress moved quickly last week with most areas of the region working 7 days of the week. However, there are still areas of the region, particularly in the eastern half where frost is still coming out of the soil and tractors and fertilizer spreaders are getting stuck yet.

Approximately 81% of the small grains have been planted in the region with Burleigh, Emmons, LaMoure, Richland, Sargent, and Sheridan Counties reporting nearly all small grain acreage planted. Eddy County likely has the least small grains planted at only 20%. The earliest planted hard red spring wheat has begun emerging with the region averaging 26% of the crop emerged compared to last year at 38%. Emergence is looking great and uniform with the earliest planted small grains (**Figure 2**) having 1.5-leaf hard red spring wheat already. However, small grains planted later across the region, particularly on the western end of the region is emerging non-uniformly, with some stands poor to fair due to cold soil temperatures and dry surface soils. In the eastern part of the region tillage of wet soils also created a cloddy and poor seed bed causing non-uniform wheat emergence (**Figure 3**).



Figure 2: 1.5-leaf hard red spring wheat at the Carrington Research Extension Center.



Figure 3: Non-uniform hard red spring wheat emergence due to soil being worked too wet causing a cloddy seedbed resulting in poor soil to seed contact.

Nearly all sugarbeets have been planted in the region with only about 25% emerged.

About 40% of the canola has been planted so far in the region, with the western part of the region nearly completely planted. At this time in 2025, most canola was planted already. The average emergence is about 7% so far.

Most dry peas have been planted across the region and a high percentage have emerged already.

Corn planting across the region for farmers varies from 0 to 100% of their farms planted due to the cold weather mostly, but also some dry soil. The average corn acreage planted in the region so far is about 32% compared to 62% in 2025 with nothing emerged according to most people compared to 6% emerged in 2025 by this time. The eastern, southern, and western parts of the region have the most corn planted at this time and some farmers have the planting of corn.

Soybean planting in the region ranges from 5 to 60% with some farmers having completed planting already. The average amount of soybean acreage planted at this time in the regions is about 18% compared to 37% in 2025.

Flax planting has started already out west. No other crops have been planted in the region at this time, whereas sunflower planting had begun in Burleigh County in 2025.

The first major challenge across the region (with some exceptions) is the overall soil surface moisture continues to decline across the region due to limited rainfall. In the western part of the region, particularly the northwest part of Sheridan, Burleigh, Emmons, Kidder, and Ransom Counties, these counties have the driest surface and subsoil. Subsoil moisture is declining as well in Burleigh, Emmons, Kidder, LaMoure, Logan, and Sheridan Counties. Based upon 47 of the NDAWN stations in the region I look at, the Skogmo and Tappen NDAWN stations are the driest right now at the 4-inch and 39-inch soil moisture being 5% and 9.5%, respectively at these two depths at the Skogmo location and 8.1 and 6.4%, respectively at these two depths at the Tappen location. If soils are being tilled to prepare a seedbed where soil moisture is limited, be sure to plant the field shortly after tillage and make sure the seed is planted as deep as possible

based upon the crop to allow good soil to seed contact. Adjust press wheel pressure to preserve soil moisture for seeds to germinate.

The second major challenge again this week in the region, is the 4-inch bare soil temperature across the region continuing to delay corn and soybean planting for some farmers. The daily average soil temperature for May 5th to May 11th for the 47 NDAWN stations ranged from 45 degrees Fahrenheit at Bremen to 57 degrees Fahrenheit at Livona NDAWN stations with an average for the 47 NDAWN stations of 50 degrees Fahrenheit; 9 degrees Fahrenheit greater than April and early May and about normal for this period (based upon the Cooperstown NDAWN station). At 8:00 AM May 12, 2026, the average soil temperature for the region was only 48.5 degrees Fahrenheit, which is below the normal for this time of year! Bremen, Cooperstown, Hope, McHenry, Mooreton, and Pickardville NDAWN stations had a weekly average soil temperature below 50 degrees, which is not warm enough to facilitate germination of corn and soybean seeds.

The third major challenge this week continues to be the expansion of visual soil salinity due to the lack of rainfall to push the salts deeper in the soils and the horizontal capillary movement of salt water away from the highest saline areas of the field to drier and lower salt content areas of the field.

Another challenge this past week were the strong winds causing tilled soils to blow and reduce the chances to apply preemergence herbicides necessary to control weeds in all crops. **Figure 4** shows an overview of hard red spring wheat damage from wind and sandblasting on a sand ridge. **Figure 5** shows the hard red spring wheat damage up close from the wind and sandblasting and the amount of soil moved in this area of the field!



Figure 4: Hard red spring wheat damaged by wind and sandblasting on a sand ridge this past week.

The average daily high temperature for May 5th to May 11th ranged from 55 degrees Fahrenheit at Finley and McHenry NDAWN stations to 64 degrees Fahrenheit at the Strasburg NDAWN stations with an average of the 59 degrees Fahrenheit. This average is 8 degrees Fahrenheit warmer than reported last week, but based upon historical records for Cooperstown this is 4.4 degrees Fahrenheit BELOW the normal! The average daily low temperature for May 5th to May 11th ranged from 27 degrees Fahrenheit at the Harvey, Oakes, Pickardville, and Zeeland NDAWN stations to 34 degrees Fahrenheit at the Wirch NDAWN station with an average for the 47 stations of 30 degrees Fahrenheit; only 2 degrees Fahrenheit warmer than the April average. Based upon historical records for Cooperstown the average daily low temperature for

May 5th to 11th was a whopping 7.7 degrees Fahrenheit BELOW the normal average weekly low temperature! This average daily low temperature for the week was tied for the seventh coldest for this period for Cooperstown!

The total rainfall for May 5th to the 11th ranged from 0.0 inch at Carrington, Courtenay, Marion, Pickardville, Steele, Streeter, Tappen, Wing, and Wishek NDAWN stations to 0.14 inch at the Finley NDAWN station with a regional average of only 0.04 inch! Based upon historical records for Cooperstown, the total rainfall for May 5th to the 11th was 0.51 inch BELOW normal!

Please stay safe and have a great rest of your week!



Figure 5: A close up of the severe damage caused by wind and sand-blasting to hard red spring wheat this past week.

[Jeff Stachler](#)

Griggs County Extension Agent

SOUTHWEST ND

Another dry week persisted across Southwest ND. Over the last 7 days, precipitation totals ranged from 0 to 0.05 inches across the region. The dry and cold weather last week did not significantly delay field operations, with intense activity being reported across the region, including spraying, fertilizer application, and planting.

Crop progress reports indicate that small grains are close to fully planted, field peas are completely planted, and canola is nearing 80% planted. Growers are now switching gears to corn and soybeans. Earlier planted HRSW is now beginning to emerge, while canola seedlings are mostly at the cotyledon stage.

Last week, temperatures dropped into the 20s F across much of Southwest North Dakota, causing freeze injury to recently emerging crops (Figure 1). Although the injury may appear severe, yield penalties for crops such as spring wheat, oats, durum, and barley are expected to be minimal because the growing point remains below the soil surface at these early growth stages, allowing plants to recover and produce new growth.

While traveling along I-94 with my colleague Dr. Chris Augustin last week, we observed several fields that were tilled this spring. Some of those fields were vertical tilled, while some of them seemed to have been worked up more intensely. Conversations with colleagues suggested that one reason for returning to tillage in areas that have been under long-term no-till is to bury acidic surface soil layers (0–3 inches). A word of caution regarding this practice is that, although tillage may provide a short-term improvement, soil acidity problems will likely worsen over time if lime is not applied. This occurs because soil acidity in long-term no-till fields in Southwest ND is often highly



Figure 1. Oat seedling with signs of freeze injury to the leaves in Stark County. Photo credit: Glenn Martin, DREC Research Specialist.

stratified, with the problem typically confined to the upper 2–3 inches of the soil profile (Figure 2). Soil pH generally increases with depth in the soil profile. Tillage mixes higher-pH soil from deeper layers with more acidic surface soil. Again, this may serve as a temporary fix; however, without lime application, the soil will likely continue to acidify over time, potentially transforming a shallow 2-inch acidity issue into a deeper and more widespread problem.

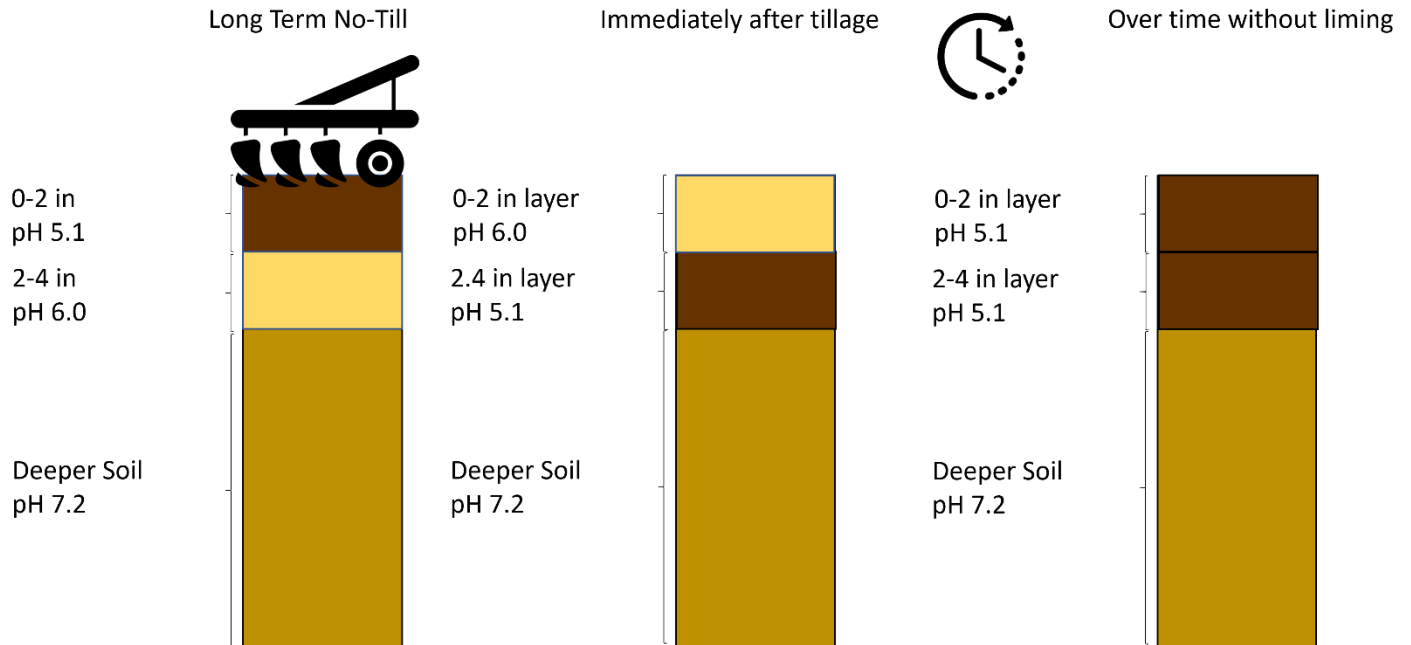


Figure 2. Conceptual schematic illustrating how tillage redistributes stratified soil acidity in long-term no-till systems. While tillage may temporarily dilute acidic surface layers, soil acidity can worsen over time without lime application.

As a reminder, lime is the only thing that fixes low soil pH problems. Gypsum or calcium do nothing for our low pH soils. As a rule of thumb, growers should apply a rate of at least 2 tons of calcium carbonate equivalent (CCE) per acre to start seeing their soil pH increase.

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