

NEWSLETTER

Driftless Ag Update

Ag news for La Crosse, Vernon, and Crawford Counties from UW-Madison Extension



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Please contact your local extension office for the print version of any article included in this newsletter.



Here's your September Driftless Ag Update!

Hello and congratulations on receiving our second Driftless Ag Update! This newsletter is co-written by your local UW-Madison Extension Ag Educators, Beth McIlquham (livestock) and Sam Bibby (crops).

Notes from your Regional Crops Educator- Sam Bibby

-Corn silage harvest: We are lucky here on the West side of the state not to be plagued with as many variable corn stages as farmers further East. Regardless there are a handful of late planted fields out there. Plan accordingly and start sampling fields of differing maturities to determine chopping order. Read the latest article from the Badger Crop Doc "Disease and Mycotoxin Considerations for Corn Silage Harvest in Wisconsin" on page 3-6. Find a wealth of corn silage recommendations here: <https://fyi.extension.wisc.edu/forage/corn/#harvest>

-We have had reports of soybean aphid infestations. Luckily most fields are rapidly approaching reproductive stage "R6" when it is no longer economical to spray. Not to mention the price of beans lately has depressed the economics of spraying insecticide further. Soybean aphid field guide download at <https://store.extension.iastate.edu/product/12817>.

-Interested in doing on-farm research? Want to dial in your nitrogen rate? Consider applying for an NOPP grant and running a nitrogen rate trial. (They pay for all the inputs and provide a stipend to the farmer) I am happy to help you apply and carry out a trial. Got an idea not related to nitrogen? We can tackle that too. Reach out sooner rather than later so we can get a plan together for next year.

Notes from your Regional Livestock Educator- Beth McIlquham

-Beef Quality Assurance (BQA): Certification expires every three years. If you were certified in 2021 or 2022, it may be time to think about getting re-certified. Online and in-person trainings are provided. Note that in-person trainings require registration. More information can be found below. If you are unsure of your certification status, please visit www.bqa.org/contact-us or call (303) 850-3473.

-Assessing Winter Feed Needs: After a challenging growing season, it may be a good idea to get your winter feeds tested to ensure that your animal's are getting the nutrients they need. If you have cow's, keep in mind that 75% of fetal growth happens in the third trimester. Providing adequate nutrition during that time is key.

-Disease Digest: By now, most people have heard of highly pathogenic avian influenza (HPAI) H5N1. To date, there have been no cases detected in Wisconsin that contain the genotype associated with dairy cattle in other states. Within the equine section of the world, an unvaccinated gelding in Marquette County recently tested positive for West Nile Virus. For animal owners of all kinds, evaluate your biosecurity protocols to see if they are working for you.

Disease and Mycotoxin Considerations for Corn Silage Harvest In Wisconsin

August 26, 2024/in Corn, Corn Disease, Ear rot, Gray Leaf Spot, Mycotoxins, Northern Corn Leaf Blight, Stalk rot, Tar Spot, Urgent /by damon smith

Damon Smith, Extension Field Crops Pathologist, Department of Plant Pathology, University of Wisconsin-Madison

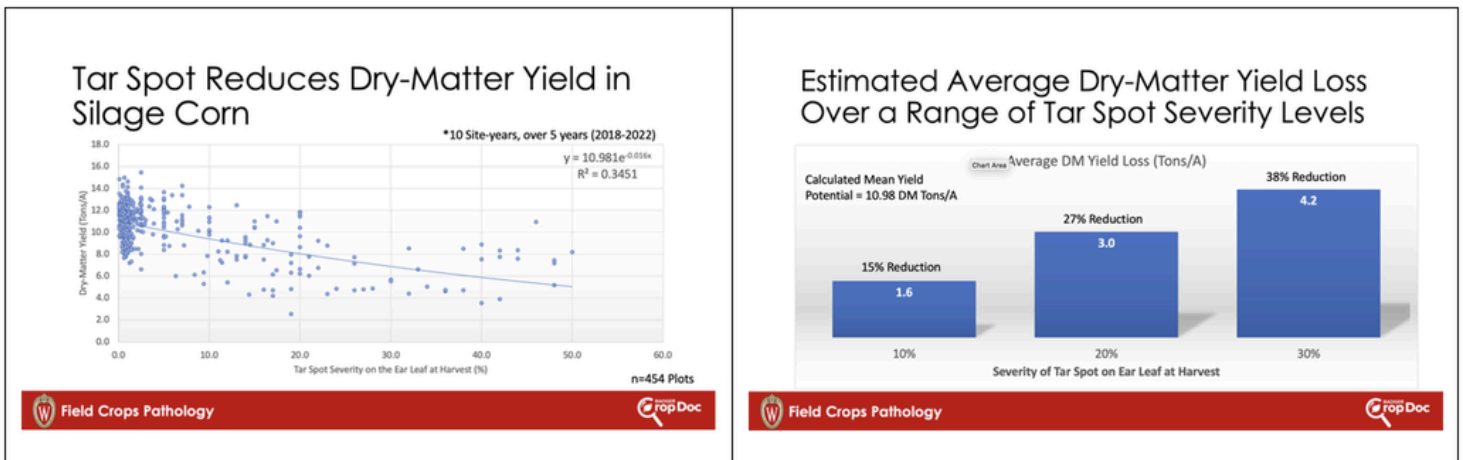
We are quickly approaching that time of year where we will see silage choppers working the 2024 corn crop. This means it is time to understand overall crop health and how diseases might be affecting the crop so that you can make the best silage product you can.

Overall, the corn crop in Wisconsin looks good. Yes, I can find some sort of disease in any field I visit, but I would say for the most part, most fields that were planted relatively on time, and didn't experience early-season flooding, have a decent crop. With that said, we need to monitor the crop closely as we approach harvest as foliar disease issues can sneak up quickly as cool, wetter weather moves in near the early fall harvest.

Foliar diseases such as southern rust, tar spot, gray leaf spot (GLS), and northern corn leaf blight (NCLB) can be problematic for silage production. Not only do these diseases lead to a reduction in overall silage quality, they can force the plant to scavenge carbohydrates in the stalk which can result in standability issues and lodging. These diseases can also influence whole plant moisture making harvesting at optimal moisture difficult. If silage is harvested at sub-optimal moisture, then packing the bunker properly can be a challenge which can lead to slow fermentation and continued growth of aerobic organisms like fungi. This can indirectly lead to an increase in mycotoxins and "mold" issues from these aerobic fungi.

Tar spot and silage harvest

Tar spot of corn has been an issue on silage corn in Wisconsin since 2016. In fact, the first finding of tar spot was on corn for silage that year. Since 2016 the largest and most consistent impacts happen on corn for silage vs. corn for grain. Yes, tar spot can result in significant grain losses, but tar spot can also affect the overall plant in other ways such as loss in dry-matter yield (Fig. 1) and whole plant moisture contents well below optimal, making bunker-packing a significant issue. In recent work in Wisconsin, we see significant dry-matter yield reductions when tar spot severity on the ear leaf reaches over 10% at the time of chopping. This can result in as much as 15% reduction in yield, with these impacts dramatically increasing at severity levels of 20% or more on the ear leaf (Fig. 1). If tar spot (or any foliar disease) is moving quickly in your silage crop, you might consider chopping a bit earlier to reduce dry-matter yield losses and to try to optimize whole plant moisture, prioritizing good bunker management. If moisture at chopping is not prioritized, then subsequent storage issues such as mold and mycotoxin concerns can arise indirectly, due to poor bunker management. This brings us to *Gibberella* ear and stalk rot in silage corn.



Gibberella and silage harvest

Gibberella ear rot is caused by *Fusarium graminearum* (a.k.a. *Gibberella zeae*). The same pathogen can cause **Gibberella crown and stalk rot in corn**. We have observed both diseases on silage corn in Wisconsin in recent years. Our environment here in the Great Lakes region makes a perfect place for this pathogen to cause these diseases. In addition to the damage that the pathogen can cause, the fungus can also produce various mycotoxins, most importantly deoxynivalenol (DON or Vomitoxin). Our laboratory has conducted quite a bit of research recently trying to understand where in the plant DON accumulates. In detached plant part experiments, we have noted that DON can accumulate in both the stalk and ear portions of the plant, AND that these two phases of accumulation are not linked to each other (Chibuogwu et al., 2024). The fungus can infect these parts separately at different times during the season and the subsequent accumulation of DON can happen differentially in the stalks vs. the ears. This is partially why you can go out to the field and scout for ear rot and not see a lot of infection (moldy ears), but still have high DON levels at chopping time. Some of that DON is likely accumulating in the stalks.

We have also been following the fate of DON in silage harvested and chopped from a brown midrib (BMR) hybrid and a dual-purpose hybrid that were grown in the field and treated with fungicides at white silk (R1). We chopped the plants in each plot and then used mini-silos (polyethylene bags vacuum-sealed using a commercial grade vacuum packer) to conduct a time-course experiment following DON levels in the mini-silos (Chibuogwu et al. 2025). In all cases we saw DON levels generally increasing in the first 30 days after chopping (Fig. 2). They then leveled off and became stable at 60, 90, and 120 days after chopping. Some of this increase could be due to oxygen still in the system during the first 30 days after chopping. DON-producing fungi are aerobic and continue to consume some of the minute levels of oxygen still in the system, thereby still producing DON. However, this likely only explains some of the DON levels we detected.

There are also “masked” or conjugated forms of DON that are detectable in routine DON analyses. One such conjugate is DON-3-glucoside (D3G). D3G can be produced by fungi or during a plant’s attempt to protect itself from the toxicity of DON. Either way, D3G is not detectable in routine test and must be tested for specifically.

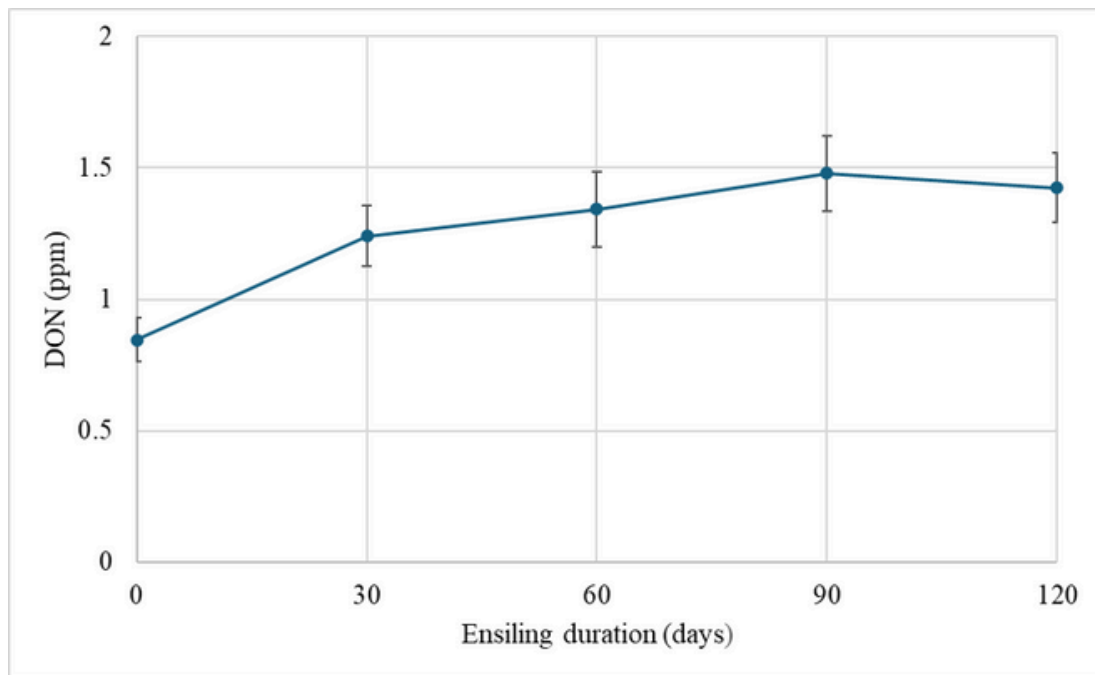
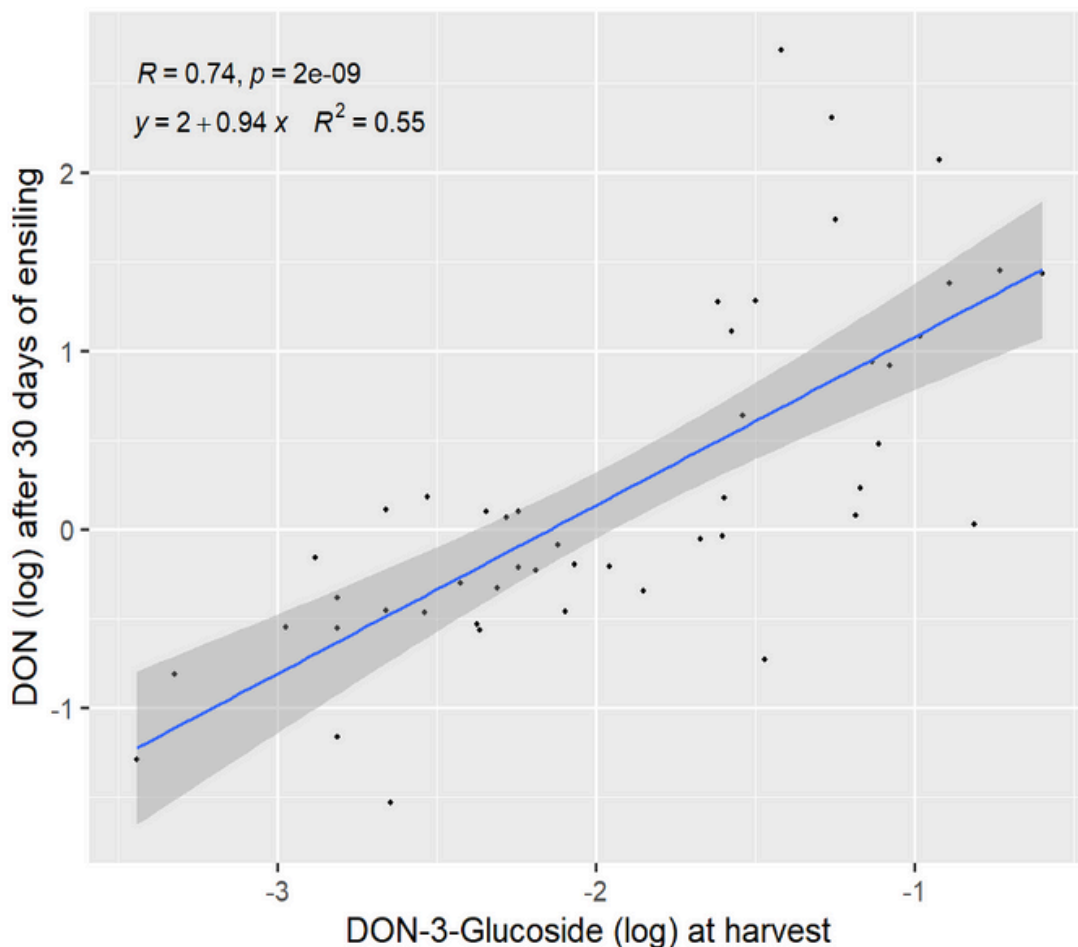


Figure 2. DON concentration of chopped field-grown silage corn over time of ensiling.

We investigated our samples further during the first 30 days of ensiling and found that the level of D3G at harvest, explained a significant level of the DON recorded in samples after 30 days of ensiling. This is to say that D3G present at harvest, is likely metabolized in the first 30 days of ensiling releasing DON and resulting in higher DON levels 30-days later (Fig 3).



Again, this relationship only partially explains why DON increases in silage during the first 30 days of storage. The full explanation is likely due to both metabolization of D3G and continued fungal respiration leading to an increase in DON at feed out compared to when it was packed in the bunker.

Figure 3. Relationship of DON-3-Glucoside (log) at harvest and DON concentration after 30 days of ensiling.

The Take Home

So, what are we to do with all of this information? Well, knowledge is power. You need to balance foliar disease management with Gibberella/DON management when making high-quality silage in Wisconsin. Diseases like tar spot are the new normal. As you prepare to harvest, it is a good idea to get out in the field and see how bad the foliar disease is and how much ear rot you are seeing. You will want to prioritize harvest on fields showing more disease. In fields where there are high levels of tar spot, southern rust, or NCLB, monitor moisture carefully and try to chop to optimize moisture. Concentrate on good bunker hygiene and spend time packing the material as best you can, focusing on getting as much oxygen out of the system as you can. If a corn crop becomes too dry to make good silage, you might consider harvesting it for high-moisture grain to try to circumvent bigger issues that could arise at feed out, by making less than ideal silage. Finally, it is important to test for DON frequently and understand what you are dealing with. You want to start with the lowest levels of DON coming from the field that you can. DON will likely increase in the bunker no matter how well you pack it. Thus, starting with the lowest levels at harvest will help keep final levels of DON below critical thresholds. Moving forward, mycotoxin testing in corn should include not only DON but also for conjugates of DON that can be metabolized back to DON and increase the final DON concentration during ensiling.

Have a safe and productive silage harvest season!

Citations

Chibuogwu, M.O., Groves, C.L., Mueller, B., and Smith, D.L. 2024. Effects of fungicide application and corn hybrid class on the presence of *Fusarium graminearum* and the concentration of deoxynivalenol in ear and stalk parts of corn (*Zea mays*) used for silage. *Plant Disease*. <https://doi.org/10.1094/PDIS-12-23-2662-RE>.

Article: [Disease and Mycotoxin Considerations for Corn Silage Harvest in Wisconsin](#)





2024 WISCONSIN EXTENSION WEED MANAGEMENT WORKSHOP

Join the UW–Madison Division of Extension and the WiscWeeds Team for a day of weed management skill sharing, learning, and further understanding mechanisms of weed control.

SCHEDULE

- 8:30**
Registration & Coffee
- 9:00**
Kick Off
- 9:15 – 10:00**
Navigating New Technologies for Drift and Weed Control – Dr. Tommy Butts
- 10:00 – 10:30**
Key Factors to Consider When Using Herbicides in Alfalfa – Dr. Mark Renz
- 10:30 – 12:00**
WiscWeeds Corn-Soybean Weed Management Research Update (Dr. Rodrigo Werle and Team)
- 12:00 – 1:30**
Lunch with Weed ID Quiz and Sponsor Talks
- 1:30 – 2:15**
Understanding the Chemistry Behind our Herbicide Applications – Dr. Tommy Butts
- 2:15 – 4:00**
Field Plots and Equipment Walks

Don't miss special guest Dr. Tommy Butts!

Dr. Tommy Butts is a Clinical Assistant Professor, Extension Weed Scientist at Purdue University. Tommy originally hails from southern Wisconsin where he grew up working on and around small dairy farms. Tommy's research and Extension efforts focus on identifying novel weed management strategies through diversified methods including the use of precision agriculture, application technologies, and digital data in a targeted, site-specific approach. His overall goal is to generate research-supported and effective weed management educational materials to be used by farmers and in the classroom to aid in battling complex weed problems.



To register, scan QR code
and follow payment
instructions



Registration, sponsorships, and more online:
go.wisc.edu/ExtWeedManagementWorkshop

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Beef Quality Assurance (BQA): Date and Locations Announced

Register for in-person beef quality assurance trainings. Re-certification is required every 3 years. The Equity Coop Livestock Sale Barn in Sparta will be hosting on September 24 at 6:30 PM.

To Register, please call: 1-800-728-2333 **OR** the Vernon County Extension Office: 608-637-5276



September 12th. 2024 Extension Weed Management Workshop. Register Now!

Join the UW–Madison Division of Extension and the WiscWeeds Team for a day of weed management skill sharing, learning, and further understanding mechanisms of weed control. This event costs \$20 and includes a catered lunch. CCA CEUs will be available.

We will cover herbicide application technology, herbicide formulations, adjuvants, weed management news/updates, waterhemp management, and much more!

To Register: Call Linda Areneson at
608-339-4237

BEEF-COW CALF FIELD DAY

Saturday, September 21st Noon-4pm
McFarlin Farms: 3979 County Hwy B, Wisconsin Dells
Free of Charge/ Snacks and Refreshments Provided
** Please bring washable footwear and your own lawn chair for seating!*



Some Field Day Topics Include:

- Facilities and Cattle Handling Tour
- Farm Experiences: Building a Beef Herd
- Body Condition Scoring
- Breeding & Reproductive Decisions
- Feeding Cows and Calves

Registration Required by September 18

Please Call or Email the Adams County Extension Office to Register:

Phone: (608) 339-4237 Email: linda.arneson@wisc.edu



Extension
UNIVERSITY OF WISCONSIN-MADISON

For Questions and Accommodations Contact:
Adam Hartfiel: Regional Livestock Educator
adam.hartfiel@wisc.edu or (920) 647-6560

University of Wisconsin, U.S. Department of Agriculture and Wisconsin counties cooperating. UW-Extension provides equal opportunities in employment and programming including Title IX and ADA. Contact us to request an interpreter, materials in an alternative language or format, or other services to make these events more accessible.

To Register: Call Adams County Extension
at: 608-339-4237

Considerations for Creep Feeding Beef Cattle

With cattle prices at record highs and favorable feed prices, producers are likely considering creep feeding their beef calves to add additional pounds. Creep feeding provides supplemental feed to nursing beef calves, in an area that the cows can't get at the feed. It is common for creep feed to consist of grains, protein supplements, and limiters, but many other feed sources can be used as creep. The feed may be on-farm mixed, or a commercial feed of various types, usually fed using a creep feeder.

Whether creep feeding will pay off is more complex than just adding pounds to the calves and many factors come into play. Research results over the years have been mixed. It is important to evaluate numerous factors including production goals, environmental conditions, and market endpoint to determine if creep feeding will ultimately aid profitability.

Questions when considering creep feeding:

- How will the calves be managed and sold after weaning?
- What is the quantity and quality of the feed sources calves have access to?
- What is the anticipated cost of gain from creep feeding?



Some scenarios where creep feeding may not be profitable even with current cattle and feed prices:

Pastures are well-managed- If forage quality and quantity is well managed pastures, calves may not benefit from additional nutrition. Calves that have higher milking mothers and access to high quality forage may add extra flesh (fat) that could result in discounts when marketing as feeder calves.

Forage availability and cow condition are concerns- If forage availability is low due to drought and cow condition is a concern. A common misconception is that creep feeding reduces calf milk consumption. Because calves order of preference for food is milk, creep feed, then the forage source, creep feeding doesn't result in less demand on the cow for milk. A better option both economically and for the long-term benefit of the cows, and calves, is to wean the calves early.

Heifers are being kept as replacements- Long term research has shown creep fed heifers produced less milk, weaned lighter calves and were less productive their entire lives compared to heifers that weren't creep fed.

Farm is retaining ownership of calves- If you are retaining ownership of the calves either to background or grow and then finish them. Research has shown that calves not creep fed will catch up in size to the creep fed calves by compensatory gain. Some scenarios where creep feeding may prove to be profitable in our current situation are:

Selling as feeder calves shortly after weaning- After preconditioning for a short time and the pasture quality is low, there will be more pounds of calf to sell.

Creep feeding with higher energy creep feeds (starch and or fat)- This scenario has been shown to help with increasing marbling that is realized at harvest when calves are transitioned to finishing rations shortly after weaning. To capture this value calves need to be sold through a channel where the producer will realize the benefits of the improved marbling, on a grid for example. Using this approach, smaller framed cattle may finish at a lighter weight than what the market is seeking compared to putting them on a grower ration for a time. For large framed cattle this may not be a problem. If you are direct marketing meat and can capitalize on the higher quality grades, lighter weight at finish is likely of less concern.

SUMMARY

In summary, creep feeding beef calves is not a one size fits all management decision. The best choice may not even be the same from year to year. When making the decision to creep or not creep it is important to consider the marketing plan, the quality and quantity of forage available to the calves, and costs of gains to determine if it has strong potential for being profitable.

Top 8 Recommendations for Winter Wheat Establishment in 2024

*Shawn Conley, State Soybean and Small Grains Specialist
John Gaska, Outreach Specialist
Damon Smith, State Field Crops Pathology Specialist*

Top 8 winter wheat establishment recommendations:

1. Variety selection: please see the 2024 WI Winter Wheat Performance Test
2. Plant new seed (DO NOT plant saved seed).
3. A fungicide seed treatment is recommended for winter wheat in WI, especially for seed damaged by Fusarium head blight (FHB).
4. Wheat should be planted 1 to 1.5 inches deep regardless of planting date.
- 5.5. Plant between September 20 and October 10.
6. The target seeding rate for wheat planted from September 20th to October 1st is 1,750,000 seeds per acre.
7. The optimal seeding rate for wheat planted after October 1st should be incrementally increased as planting date is delayed compensating for reduced fall tillering.
8. Crop rotation matters.

Variety Selection

As with any crop, variety selection is the most important factor to consider in maximizing winter wheat yield and profitability. When choosing a winter wheat variety, several factors must be considered. These include winter survival, insect and disease resistance, lodging, test weight, and most importantly, yield. Since no variety is ideal for every location, it is important to understand the crop environment and pest complex that affects your specific region to maximize yield.

Yield is based on the genetic potential and environmental conditions in which the crop is grown. Therefore, by diversifying the genetic pool that is planted, a grower can hedge against crop failure. Select those varieties that perform well not only in your area, but across experimental sites and years. This will increase the likelihood that, given next year's environment (which you cannot control), the variety you selected will perform well.

Test weight is also an important factor to consider when selecting a variety. The minimum test weight to be considered a U.S. #2 soft red winter wheat is 58 lb/bu. Wheat at lower test weights will be discounted. Environment, pests and diseases may greatly affect test weight; therefore, selecting a variety that has a high-test weight potential in your region is critical to maximizing economic gain. Test weight discounts at the elevator can range from 8 to 12 cents per ½ lb/bu below 58 lbs/bu.

Select a variety that has the specific **insect and disease resistance** characteristics that fits your needs. By selecting varieties with the appropriate level of resistance, crop yield loss may be either reduced or avoided without the need of pesticides. Careful management of resistant cultivars through crop and variety rotation, is required to ensure that these characteristics are not lost.

Disease levels were considerably higher in 2024 than in the past several seasons in Wisconsin. We saw the highest levels of Fusarium head blight (FHB or Scab; caused by *Fusarium graminearum*) since 2021 and stripe rust (caused by *Puccinia striiformis*) was at damaging levels at several research locations, a first since 2017. Statewide, stripe rust and FHB were apparent with some hotspots of both diseases. Occasional reports of powdery mildew (caused by *Blumeria graminis* f. sp. *tritici*) and tan spot (caused by *Pyrenophora tritici-repentis*) could be found but did not impact yield except on the occasional highly susceptible variety.

When making your wheat variety decision for the 2024-2025 season, take time to review several previous years of Wheat Performance Test results. While not all wheat varieties perform the same across a location, they do tend to yield better when they have less disease. Sorting the tables first by lowest FHB incidence and FHB severity scores then looking for yields comparable to the best yielding variety (stared yield score) can facilitate finding a variety with excellent yield and a good disease performance package.

Plant height and lodging potential are also important varietal characteristics that may be affected by your cropping system. If the wheat crop is intended for grain only, it may be important to select a variety that is short in stature and has a low potential for lodging. This may decrease yield loss due to crop spoilage and harvest loss as well as increase harvesting rate. However, if the wheat crop is to be used as silage or is to be harvested as both grain and straw, then selecting a taller variety may be warranted.

For detailed information regarding winter wheat variety performance please visit www.coolbean.info for results of the 2024 WI Winter Wheat Performance Test.

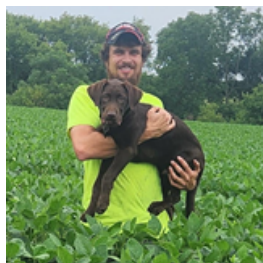
LEARN MORE

<https://coolbean.info/wp-content/uploads/sites/3/2024/08/Top8wheatrecs.pdf>



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