



Extension

UNIVERSITY OF WISCONSIN-MADISON
OUTAGAMIE COUNTY
WINNEBAGO COUNTY

Agriculture Report

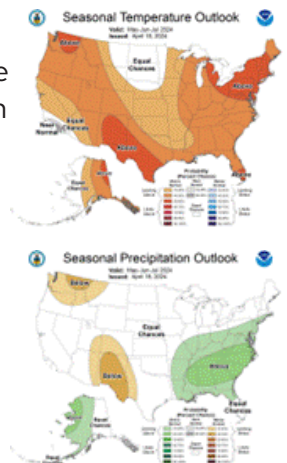
May 2024

Greetings Producers,

They say a picture is worth 1,000 words... well, those who have seen my presentations know I fully believe that statement to be true. After dealing with the warmest February ever observed in Wisconsin, one farmer performed secondary tillage on Valentine's Day 2024 thanks to our soil moisture levels ranging from 16-22% during that time. Never recall that happening in my lifetime. The warm weather also resulted in alfalfa fully breaking dormancy (again). The alfalfa began greening up in February and the photo on the left illustrates the plants were very healthy on 2-28-24. While the weather has moderated since then, the good news is most established stands appear better than expected given the unusual conditions we experienced this winter. Some new seeding stands from last year may require further evaluation, but for the most part, I would call this a win.



The current 90-day outlook for temperatures suggest we have an enhanced possibility for above average temperatures over the next three months while there are equal chances for precipitation to trend in either direction. Planting date has a huge influence on final yield so while we needed some of the recent precipitation to replenish our extremely dry subsoil moisture levels, the hope is we will get the windows we need as we move through the 2024 planting season. UW-Madison Division of Extension can now be your one stop shopping place to get the most recent weather and climate information available. Sign up at: <https://cropsandsoils.extension.wisc.edu/wisconsin-climate-outlook/>.



The confirmation of Avian Influenza, the HPAI H5N1 virus in dairy cattle is one of those developments that no one may have seen coming. The concern is dairy cattle that are susceptible to infection with HPAI H5N1 virus can shed virus in milk and, therefore, might potentially transmit infection to other mammals via unpasteurized milk. This newsletter contains the most recent information available from UW-Madison on HPAI H5N1. Updated information at <https://go.wisc.edu/HPAI-Resources>. As of April 26 there are currently no reported cases of HPAI in Wisconsin. As of Monday, April 29, 2024, APHIS USDA put into effect mandatory testing prior to interstate (across state lines) movement of lactating cattle via a federal notice issued last week. Testing for other classes of dairy cattle will continue to be evaluated as the situation evolves.



Photo Credit: Bryce Richter via UW

Please remember to be safe in the field during the long hours associated with the planting season and feel free to reach out to Stephanie Bowers or me if we can be of assistance.

Kevin Jarek

Crops and Soils Educator
Outagamie and Winnebago Counties

3365 W Brewster St, Appleton, WI 54914
920-832-5121 | outagamie.extension.wisc.edu

Upcoming Events

May

- 8 Badger Crop Connect | 12:30 pm | Presented via Zoom
- 21 Badger Dairy Insight | 11:00 am | Presented via Zoom
- 22 Badger Crop Connect | 12:30 pm | Presented via Zoom

June

- 9 Outagamie County Breakfast on the Farm | Erickson Dairy Farm N9602 County Rd D, Bear Creek
- 12 Badger Crop Connect | 12:30 pm | Presented via Zoom
- 26 Badger Crop Connect | 12:30 pm | Presented via Zoom

July

- 10 Badger Crop Connect | 12:30 pm | Presented via Zoom
- 24 Badger Crop Connect | 12:30 pm | Presented via Zoom

August

- 14 Badger Crop Connect | 12:30 pm | Presented via Zoom
- 28 Badger Crop Connect | 12:30 pm | Presented via Zoom

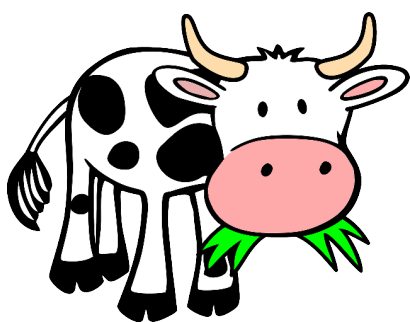
Virtual Spring 2024 Workshop Series

Tips for Food and Farm Business Success

Learn tips for running and growing a successful food business from specialists and entrepreneurs! This no-cost series of online trainings is for food entrepreneurs and farm-based food businesses.



<https://go.wisc.edu/00487s>



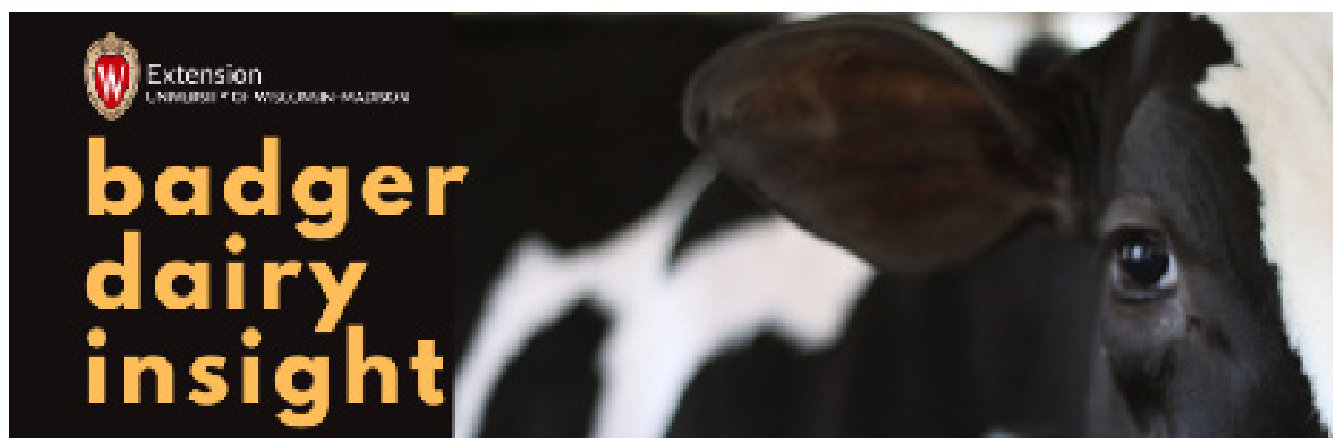
Mark Your Calendar

Breakfast on the Farm

Sunday, June 9

Serving breakfast 8:00 am - 12:00 pm

This Year's Host: Erickson Dairy Farm
N9602 County Rd D, Bear Creek



Join the webinar live on Tuesday, May 21st at 11 am CST or watch the recorded version at your leisure at a later date!

<https://dairy.extension.wisc.edu/badger-dairy-insight/>

Heat Stress in Calves

Understanding the carryover effects of early-life heat stress on dairy calves with Jimena Laporta, Assistant Professor of Lactation Physiology

Heat stress, a prevalent challenge in modern dairy farming, has been shown to have far-reaching consequences on young calves' health, well-being, and productivity; even before they are born. This presentation will explore how heat stress affects the physiological, behavioral, and developmental aspects of calves during their critical early stages of life and highlight the long-lasting implications that persist into adulthood. Additionally, this presentation will discuss potential strategies to alleviate the detrimental impacts of heat stress on dairy calves, including housing management interventions.

Strategies for keeping calves cool in hutches with Jennifer Van Os, Dairy Animal Welfare Extension Specialist, Assistant Professor

In this brief presentation, Jennifer Van Os will continue some of the themes from Dr. Laporta's presentation, specifically discussing collaborative work at UW-Madison to identify practical strategies for alleviating heat stress in hutch-housed dairy calves.

Dairy & Livestock

HPAI Update:

<https://go.wisc.edu/HPAI-Resources>

Current Situation in Wisconsin As of April 26, 2024:

- There are currently no reported cases of HPAI in Wisconsin.
- As of Monday, April 29, 2024, APHIS USDA put into effect mandatory testing prior to interstate (across state lines) movement of lactating cattle via a federal notice issued last week. Testing for other classes of dairy cattle will continue to be evaluated as the situation evolves.

The UW Madison Division of Extension is looking for dairy herds to participate in a research study to identify the prevalence of *Prototheca Bovis* mastitis throughout the state. *Prototheca Bovis* is a yeast-type algae that lives in the environment. *Prototheca bovis* is an intermittent shedder, so affected animals stay subclinical for long periods. A special agar is needed to culture this organism as other mastitis-causing organisms outcompete it. At this time, there is no treatment for *Prototheca Bovis*.

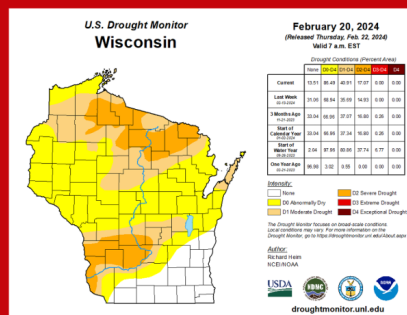
We are looking for ten animals per herd with high somatic cell counts. Milk samples can be collected either by the farm or UW Extension staff. Samples need to be collected from each quarter of the animal. Samples will be cultured for *Prototheca*, and somatic cell counts will be determined.

There is no cost to participate. Results and participation in the study are confidential. Only the farm will receive their results.

If interested in participating, you can contact Heather Schlessner at heather.schlessner@wisc.edu or 715-261-1239 or complete the form: <https://forms.gle/BiR3xTgUvidsLmp69>

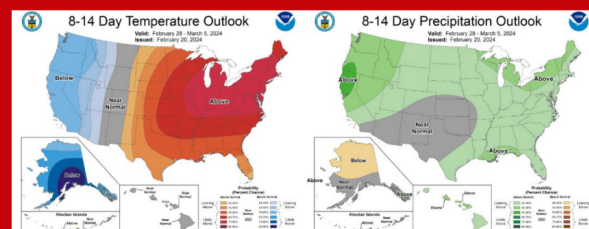
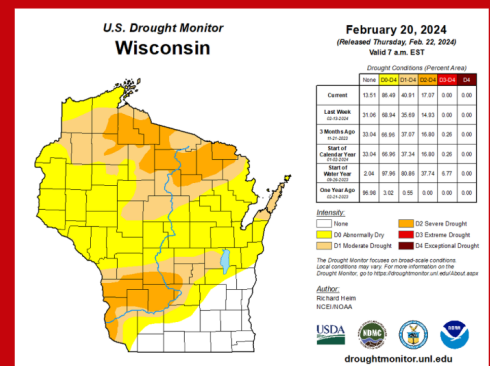
Get weekly Wisconsin Ag Climate Outlook updates delivered to your inbox!

US Drought Monitor data, weekly and monthly temperature and precipitation data, and more!



go.wisc.edu/ExtWIClimateOutlook

US Drought Monitor data, weekly and monthly temperature and precipitation data, and more!



Crops & Soils

Determining the Value of Standing Alfalfa in 2024

Kevin Jarek - UW-Madison Division of Extension - Regional Crops and Soils Educator

Scott Newell – UW-Madison Division of Extension – Alfalfa Outreach Specialist

Determining the sale value of standing alfalfa is challenging due to the absence of daily price reports, as exist for agricultural grain commodities. Recent hay market prices are the best available proxy and are available through the UW-Madison Extension website at <https://cropsandsoils.extension.wisc.edu/hay-market-report/>. The three most significant factors to consider when determining the potential value for any individual cutting of alfalfa, or the stand for the entire growing season include the following:



1. Expected dry matter (DM) yield in tons per acre
2. Estimated value of a ton of DM
3. Harvest costs

Ideally, producers would weigh all the forage harvested from each cutting from a particular field. This is the best way to ensure both parties are treated fairly in any formal arrangement in which standing alfalfa is bought or sold. Multiple forage samples should also be collected during the process of harvesting to determine an accurate value for the average dry matter (DM) content of the feed being sold. Once you have agreed upon a fair price or value for a ton of DM (may be with or without harvesting costs), you simply multiply the harvested tonnage by the agreed upon value per DM ton then adjust for harvesting costs. Unfortunately, not all farms have access to drive-over scales. When an on-farm scale is unavailable, making an effort to get at least one individual wagon or load weight from a state-certified scale at harvest will significantly improve the yield estimate accuracy relative to estimating without a scale.

Prior to harvest, or in addition to weighing the wagons at harvest, expected dry matter (DM) yield can be estimated by measuring alfalfa stand density or by utilizing multi-year on-farm data sourced from the Wisconsin Alfalfa Yield and Persistence (WAYP) program. The project is managed by the University of Wisconsin-Madison/Division of Extension. The 2023 WAYP summary can be viewed at: <https://arlington.ars.wisc.edu/wp-content/uploads/sites/115/2024/03/2023-WAYP-Summary.pdf>.

When determining a fair price for an individual cutting of alfalfa or all cuttings for the entire growing season, buyers and sellers should discuss the following six considerations.

- 1) **Stand Density:** Alfalfa stands with an average of 55 stems per square foot are defined as not being limited and having full season yield potential. Due to the high variability in alfalfa stem counts throughout many fields these past few growing seasons, it would be wise for buyers and sellers to evaluate stands to determine a realistic potential yield. WAYP project data can help you estimate DM yield derived from on-farm data collected over the past 16 years. Local growing conditions, alfalfa stand condition after overwintering, age of the stand, composition of the stand, soil texture/series, soil fertility, and soil drainage can all significantly impact alfalfa DM yields during any given growing season. It is not advisable to purchase standing alfalfa without taking each of these considerations into account before any final arrangement is agreed upon by all parties involved.

	stand density (stems/sq ft)	action	
	>55	stem density not limiting yield	
	40-55	some yield reduction expected	
	<39	consider replacing stand	

Source: Alfalfa Stand Assessment – Is This Stand Good Enough to Keep? – Dan Undersander, Forage Agronomist

Crops & Soils

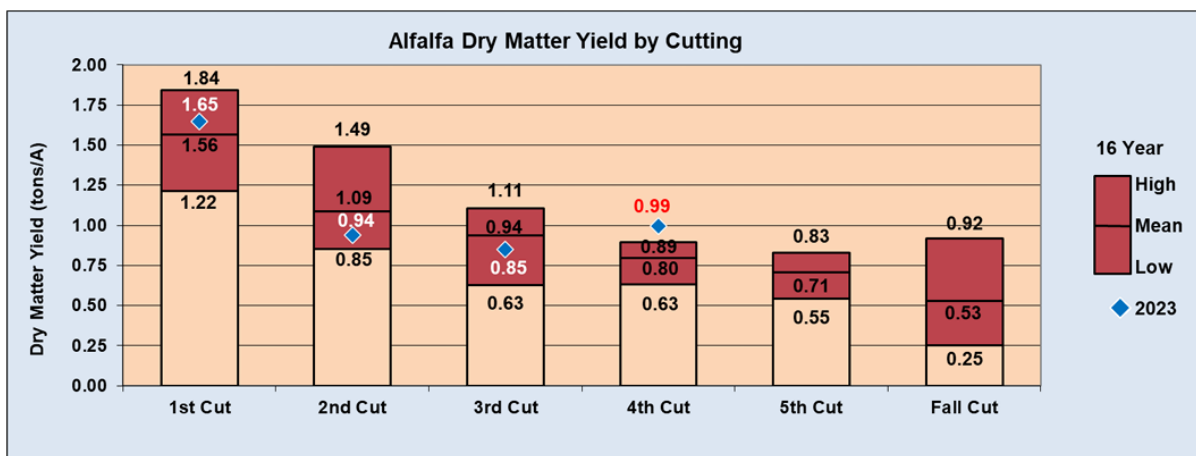
2) Average Yield Distribution Per Cutting as Determined by the WAYP Program On-Farm Data:

3 cut system – 46% (1st crop) – 28% (2nd crop) – 26% (3rd crop)

4 cut system – 36% (1st crop) – 25% (2nd crop) – 21% (3rd crop) – 18% (4th crop)

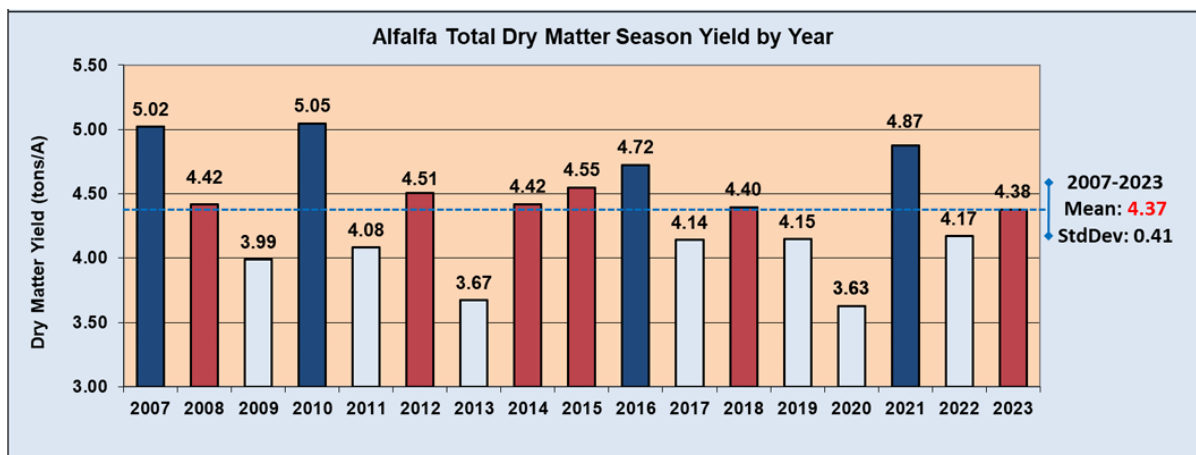
5 cut system – 32% (1st crop) – 21% (2nd crop) – 18% (3rd crop) – 16% (4th crop) – 13% (5th crop/fall cut)

WAYP data collection begins with the first full production year following new seeding. Fifth cutting (September) and late fall cutting (October/November) data were collected in years when available. It should be noted that four-cut systems represent the largest percentage of the data. The low, mean (average), and high values for DM yield over the life of the project are illustrated below. In addition, 2023 data is included so you can compare the most recent year's data to the other benchmark measurements established over the past 17 years.



Source: Wisconsin Alfalfa Yield and Persistence (WAYP) Program Summary, 2023

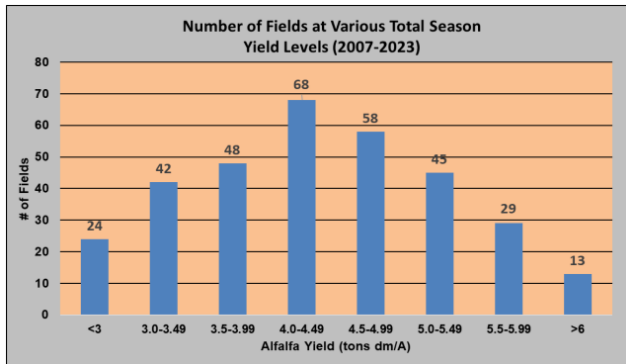
- 3) **Historic Total Season Yield:** The WAYP program has an observed yield range of less than 3.0 tons to more than 6.0 tons DM per acre. The most frequently observed yield has been **4.0-4.49 Tons DM per acre per year**. The following chart illustrates the annually observed mean of alfalfa DM yield in tons per acre from 2007-2023. The average yield of first through fourth crops over the project is 4.37 tons DM per acre. The 2023 growing season data resulted in 4.38 tons DM yield/acre, slightly above the mean.



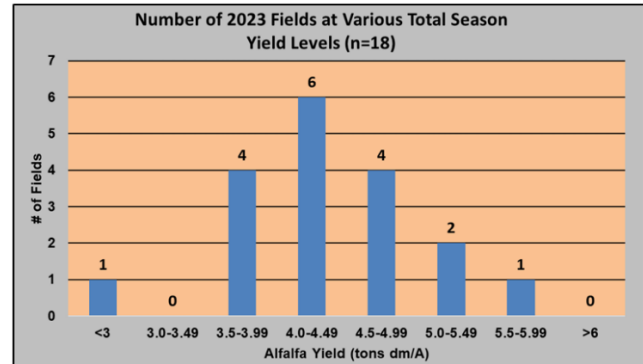
Source: Wisconsin Alfalfa Yield and Persistence (WAYP) Program Summary, 2023

Crops & Soils

Dry Matter Yield Level Distribution 2007-2023



Dry Matter Yield Distribution 2023 Growing Season



Source: Wisconsin Alfalfa Yield and Persistence (WAYP) Program Summary 2023

- 4) **Weather Risk and Field Losses:** Management practices applied to the site by the buyer during the cutting and harvesting of alfalfa will influence the final quality measurements. Purchased baled hay may have a known, measured quality from a forage test. Alfalfa purchased standing in the field has unknown quality until after harvest due to weather risk, insect or disease pressure, maturity at cutting, leaf shatter, and harvesting losses. These factors should be considered and accounted for when determining the final price. An adjustment of 25 percent to the value of the alfalfa standing in the field may be considered a reasonable method to further account for the buyer's risk. The buyer and seller can decide if they wish to use a factor other than 25%.



Merging alfalfa windrows before harvest

5) Determining the Value of a Ton of DM Alfalfa



Small square bales being harvested in Outagamie County

The Hay Market Demand and Price Report for the Upper Midwest is located at <https://cropsandsoils.extension.wisc.edu/hay-market-report/> on the UW-Madison Division of Extension Crops and Soils website. It is updated regularly. The **April 16, 2024** report indicates large square bales of Prime Quality (>151 RFV/RFQ) alfalfa averaged \$228.00 per ton. The value of a ton of DM is determined via the following calculations:

Price for a Ton of DM

As baled hay, assume moisture of 15 percent, which means it is 85 percent DM or 0.85

$$\begin{array}{rcl} \$228.00 & \times & \text{as fed ton} \\ \text{as fed ton} & & 0.85 \text{ ton DM} \end{array} = \begin{array}{r} \$268.24 \\ \text{Ton DM} \end{array}$$

Using a value of \$268.24 per ton DM and applying a 25% risk adjustment, we end up with a risk-adjusted value for a ton of DM standing alfalfa as follows:

$$\$268.24 \times 0.25 = \$67.06$$

$$\$268.24 - \$67.06 = \$201.18 \text{ per ton of DM.}$$

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- 6) **Harvesting Cost:** Custom harvest operation can be used to estimate harvest operation expenses and can be found in the **Wisconsin DATCP Custom Rate Guide 2020** at <https://fyi.extension.wisc.edu/news/2021/05/12/2020-custom-rate-guide/> or the **2024 Iowa Farm Custom Rate Survey** at <https://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf>. Examples from these sources for individual field operations are identified below:

<u><i>Mowing and Conditioning per acre:</i></u>	<u><i>Windrow Merging per acre:</i></u>	<u><i>Chopping, Hauling, and Filling per acre:</i></u>
\$16.61 per acre, statewide average (WI - 2020)	\$14.00 per acre, statewide average (WI - 2020)	\$60.00 -\$80.00 per acre, \$70.00 average *
\$14.00 -\$25 per acre, \$18.10 statewide average (IA - 2024)	\$16.00 - \$20.00 per acre, \$17.80 statewide average (IA - 2023) (No 2024 Value)	Visit the WI Custom Rate Guide for charges expressed in <i>dollars/hour</i> or <i>dollars/ton</i> to calculate costs using those posted values.

*Estimated range based on farm data, 2020 WI Custom Rate Guide does not provide per acre cost.

Using the most recent values, from Iowa State, one may spend \$18 per acre mowing and conditioning the alfalfa, \$18 per acre merging the alfalfa, and \$70.00 per acre chopping, hauling, and filling an upright silo or a bunker silo (**adjust your costs as needed**) resulting in \$106.00 per acre invested for each cutting. **Your harvesting costs may be higher or lower than those cited here.** If you harvest four (4) cuttings, total harvest costs are \$424.00/acre for the season (\$106.00 X 4 cuttings = \$424.00).



Harvesting 1st cut alfalfa haylage in Outagamie County

Using the yield per cutting data presented above, from the WAYP project, we can estimate the value of each cutting over the course of a season, based on total estimated DM yield.

Harvesting **4.0 tons of DM** total value would be \$804.72 less harvesting costs \$424.00 = **\$380.72 net**

1st Cutting = \$ 380.72 X 36% of total yield (1.44 tons DM) for the season = \$137.06

2nd Cutting = \$ 380.72 X 25% of total yield (1.00 tons DM) for the season = \$ 95.18

3rd Cutting = \$ 380.72 X 21% of total yield (0.84 tons DM) for the season = \$ 79.95

4th Cutting = \$ 380.72 X 18% of total yield (0.72 tons DM) for the season = \$ 68.53

Harvesting **4.5 tons of DM** total value would be \$905.31 less harvesting costs \$424.00 = **\$481.31 net**

1st Cutting = \$ 481.31 X 36% of total yield (1.62 tons DM) for the season = \$173.27

2nd Cutting = \$481.31 X 25% of total yield (1.13 tons DM) for the season = \$120.33

3rd Cutting = \$481.31 X 21% of total yield (0.94 tons DM) for the season = \$101.08

4th Cutting = \$481.31 X 18% of total yield (0.81 tons DM) for the season = \$ 86.63

Crops & Soils

Harvesting **5.0 tons of DM** total value would be \$1,005.90 less harvesting costs \$424.00 = **\$581.90 net**

1st Cutting = \$ 581.90 X 36% of total yield (1.80 tons DM) for the season = \$209.48

2nd Cutting = \$ 581.90 X 25% of total yield (1.25 tons DM) for the season = \$145.48

3rd Cutting = \$ 581.90 X 21% of total yield (1.05 tons DM) for the season = \$122.20

4th Cutting = \$ 581.90 X 18% of total yield (0.90 tons DM) for the season = \$104.74

Harvesting **5.5 tons of DM** total value would be \$1,106.49 less harvesting costs \$424.00 = **\$682.49 net**

1st Cutting = \$ 682.49 X 36% of total yield (1.98 tons DM) for the season = \$245.70

2nd Cutting = \$ 682.49 X 25% of total yield (1.38 tons DM) for the season = \$170.62

3rd Cutting = \$ 682.49 X 21% of total yield (1.15 tons DM) for the season = \$143.32

4th Cutting = \$ 682.49 X 18% of total yield (0.99 tons DM) for the season = \$122.85

Harvesting **6.0 tons of DM** total value would be \$1,207.08 less harvesting costs \$424.00 = **\$783.08 net**

1st Cutting = \$ 783.08 X 36% of total yield (2.16 tons DM) for the season = \$281.91

2nd Cutting = \$ 783.08 X 25% of total yield (1.50 tons DM) for the season = \$195.77

3rd Cutting = \$ 783.08 X 21% of total yield (1.26 tons DM) for the season = \$164.45

4th Cutting = \$ 783.08 X 18% of total yield (1.08 tons DM) for the season = \$140.95

Harvesting **6.5 tons of DM** total value would be \$1,307.67 less harvesting costs \$424.00 = **\$883.67 net**

1st Cutting = \$ 883.67 X 36% of total yield (2.34 tons DM) for the season = \$318.12

2nd Cutting = \$ 883.67 X 25% of total yield (1.63 tons DM) for the season = \$220.92

3rd Cutting = \$ 883.67 X 21% of total yield (1.36 tons DM) for the season = \$185.57

4th Cutting = \$ 883.67 X 18% of total yield (1.17 tons DM) for the season = \$159.06

Maximizing yield potential

If full alfalfa yield potential is to be realized, and we want to optimize stand persistence, a soil nutrient management plan should be implemented beginning with current soil tests. Following UW recommendations for applying nutrients will optimize money spent on fertilizer. Every cutting of alfalfa removes a significant amount of potassium (K) from the soil. A one-hundred-pound application of potash fertilizer (0-0-60 or 0-0-62) provides 60 or 62 lbs. of K₂O per acre. Manage soil test K levels accordingly.

Pest management also needs to be considered.

Guidelines for treatment thresholds for potato leafhoppers are at <https://fyi.extension.wisc.edu/forage/cut-bale-scout/>.

Alfalfa DM Yield Tons/Acre	LBS of K ₂ O Removed Per Ton of DM Yield	Total LBS K ₂ O Removed	Cost Per Unit of K ₂ O	Expense to Replace Removed K ₂ O
4.0	60	240	\$ 0.43	\$ 103.20
4.5	60	270	\$ 0.43	\$ 116.10
5.0	60	300	\$ 0.43	\$ 129.00
5.5	60	330	\$ 0.43	\$ 141.90
6.0	60	360	\$ 0.43	\$ 154.80
6.5	60	390	\$ 0.43	\$ 167.70

Crops & Soils

Additional Considerations

The best way to determine the potential value of standing alfalfa for both the buyer and the seller in any transaction would be to consider local conditions, pricing, and data to develop a crop enterprise budget. This budget should accurately reflect the true costs of production (cropland rental rates, crop input costs, etc.) where a particular transaction is expected to occur. Crop enterprise budgets for forage and grain crops are available for viewing and download at: <https://cropsandsoils.extension.wisc.edu/article-topic/economics-budgets-financial/>.

The National Agricultural Statistics Service (NASS) collects and publishes individual county averages for non-irrigated cropland cash rental rates in Wisconsin annually. The most recent data (8-25-23) is available at:

https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/County_Estimates/.



USDA-NRCS News

USDA-NRCS announces 2nd sign up for Fiscal Year 2024 Environmental Quality Incentives Program (EQIP) Apply by May 17, 2024

Wisconsin NRCS accepts applications year-round at all USDA Service Centers. Farmers and landowners interested in receiving financial assistance through NRCS programs are encouraged to apply now. Applications submitted by May 17, 2024 will be considered for 2024 funding. Applications received after May 17th will automatically be deferred to the next funding cycle for 2025 funding consideration.

EQIP is one of the primary programs available to farmers and landowners for farm and woodland conservation work, offering funding for more than 120 conservation practices.

NRCS can provide financial assistance for conservation practices that improve soil health, water and air quality, and other natural resources.

All eligible applications received by May 17, 2024 will be prioritized, evaluated, and ranked for funding in 2024. Applicants with projects that have designs completed and permit applications submitted will receive a higher ranking in select fund pools. Producers in Outagamie & Winnebago County can visit or call their local USDA Service Centers:

Appleton USDA Service Center
3369 W. Brewster St., Appleton
Phone (920) 733-1575 ext. 3

Oshkosh USDA Service Center
625 E County Road Y Oshkosh
Phone (920) 424-0329 ext. 3

Sign-up opportunities are open for Climate Smart Agriculture & Forestry – Inflation Reduction Act program (CSAF-IRA) and several other landscape-based initiatives. Special initiatives are available for socially disadvantaged and other historically underserved producers, such as Tribal Nations, Veterans, and Beginning Farmers, at increased payment rates. All initiatives offer technical and financial assistance through EQIP or RCPP.

For more program information, visit the NRCS Wisconsin webpage under Programs & Initiatives at:
<https://www.nrcs.usda.gov/conservation-basics/conservation-by-state/wisconsin>

Remember to file your crop acreage report with the Farm Service Agency by July 15, 2024!

Crops & Soils

Hay Market Report

Most Current report as of April 30, 2024

All data have been compiled by Jason Cavadini, Grazing Outreach Specialist, UW-Madison Division of Extension. Prices are reported for alfalfa hay and grass hay. Alfalfa hay includes pure alfalfa and alfalfa/grass mix.

All values are compiled from public and private quality tested sales through Wisconsin and the Midwest and reported on the first and third weeks of each month. All prices are reported on an as-fed basis, and not on a dry matter basis.

Where there is only an average price listed, no minimum or maximum prices were reported for that category. Average, minimum, and maximum prices in this report are the mean of all average, minimum and maximum prices reported from other sales in the Midwest. Thus, occasionally the "average" in this report will fall outside of the minimum and maximum range.

The Hay Market Report can be found at <https://cropsandsoils.extension.wisc.edu/>.

Hay Grade	Bale Type	-----Price (\$/ton)-----		
		Average	Minimum	Maximum
Prime (>151 RFV/RFQ)	Small Square	\$295.00	\$96.00	\$120.00
	Large Square	\$221.00	\$195.00	\$234.00
	Large Round	\$185.00	\$158.00	\$185.00
Grade 1 (125-150 RFV/RFQ)	Small Square			
	Large Square	\$181.00	\$170.00	\$185.00
	Large Round	\$141.00	\$131.00	\$149.00
Grade 2 (103-124 RFV/RFQ)	Small Square			
	Large Square	\$85.00		
	Large Round	\$127.00		
Grass Grade				
Prime (>151 RFV/RFQ)	Small Square	\$303.00		
	Large Square	\$171.00	\$145.00	\$198.00
	Large Round	\$167.00	\$163.00	\$175.00
Grade 1 (125-150 RFV/RFQ)	Small Square	\$130.00		
	Large Square			
	Large Round	\$127.00	\$125.00	\$134.00
Grade 2 (103-124 RFV/RFQ)	Small Square			
	Large Square	\$93.00		
	Large Round	\$97.00	\$65.00	\$100.00

Crops & Soils

Cereal Rye and Winter Triticale Crop Harvest Date Impact on Quality

Kevin Jarek, Regional Crops and Soils Educator, UW-Madison Division of Extension

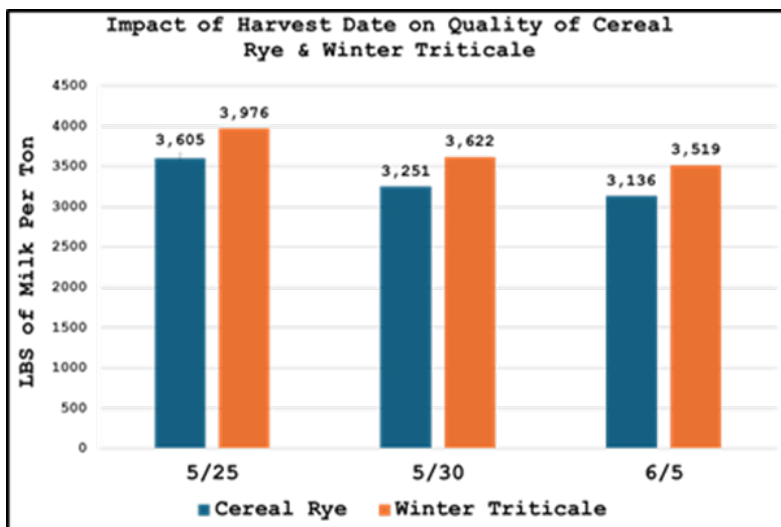


15" Cereal Rye on 4-24-24
at Sunny Daze Dairy near
Seymour

Winter cereal forage crops broke dormancy particularly early this year with the record warm temperatures in February. As a result, we are ahead of previous years when it comes to height and with warmer temperatures on the horizon, we could see a lot of growth in a relatively short period of time. The most important thing that should be determined by the time you read this is whether you are harvesting these crops for heifers or are planning to use the feed as a part of the lactating dairy herd ration.

During the 2023 growing season, the Outagamie Forage Council collected side by side data from a cereal rye crop and a winter triticale crop at Sunny Daze Dairy near Seymour. The results show what most farmers and agricultural professionals already know, but let's take a closer look at the numbers...

During the 2023 growing season, the largest decline in MPT (Milk per Ton) was realized in the first five (5) days of delaying harvest (May 30 vs. May 25). Ironically, in this project, the loss was 354 lbs. of MPT (the same for each species) by delaying harvest for both the cereal rye and the winter triticale. When harvest was further delayed by an additional six (6) days, we observed quality declines of 469 MPT in the cereal rye and 457 MPT in the winter triticale. Due to the early start we have already seen, it would be wise to closely monitor your winter cereal forages growth and development so you do not miss the opportunity to harvest the level of quality you are aiming for in 2024.



You can monitor winter cereal forage changes in quality and maturity by following the Outagamie Forage Council PEAQ/Alfalfa Scissors Clip and Winter Cereal Forages monitoring at:
<https://outagamie.extension.wisc.edu/agriculture/crops-soils/peaq-winter-cereal-forages-monitor/>.

Crops & Soils

Outagamie Forage Council to Conduct 2024 PEAQ/Alfalfa Scissors Clip

Kevin Jarek, Regional Crops and Soils Educator, UW-Madison Division of Extension

One of the main goals of the Outagamie Forage Council is to help farmers and agricultural professionals maximize the dry matter (DM) yield and Relative Forage Quality (RFQ) of their first cutting alfalfa. This mission has been accomplished through the cooperation of the host farm sites and the agricultural professionals who volunteer time and effort to support this project. Samples will be collected on Mondays and Thursdays with results being posted no later than Tuesdays and Fridays.

View data at: <https://outagamie.extension.wisc.edu/agriculture/crops-soils/peaq-winter-cereal-forages-monitor/> or call the Scissors Clip Hotline at (920)-832-4769.

Last year we began collecting data on May 15, 2023. The mild winter and early development in the alfalfa fields suggest we will begin collecting sometime the week of May 6, 2024. Early on alfalfa generally may lose 3-5 points of RFQ per day, however, as the weather warms and the plants begin to move from vegetative to bud stage we can lose 5-7+ points per day under the ideal growing conditions. Identify your forage quality goals and then monitor your crop closely.



Alfalfa 10.5" 4-27-24 near Hortonville



Despite broken dormancy in February, many fields look better than expected.

Thank you to each of the farms and agricultural professionals below for their time & commitment to make this 2024 Outagamie Forage Council effort a success.

Sugar Creek Farm (New London) collected by Much Crop Consulting
Neighborhood Dairy (Kaukauna area) collected by Kevin Naze Dairyland Seed Company
Birlings Bovines (Black Creek/Seymour area) collected by Tilth Agronomy
Larrand Dairy (Freedom area) collected by Tilth Agronomy
Oneida Nation Farm (Seymour area) - Cereal Rye collected by Tilth Agronomy
Birlings Bovines (Black Creek/Seymour area) - Cereal Rye collected by Tilth Agronomy
Sunny Daze Dairy (Seymour area) - Cereal Rye collected by Kevin Jarek/Tilth Agronomy
Winnebago County site(s) - TBD

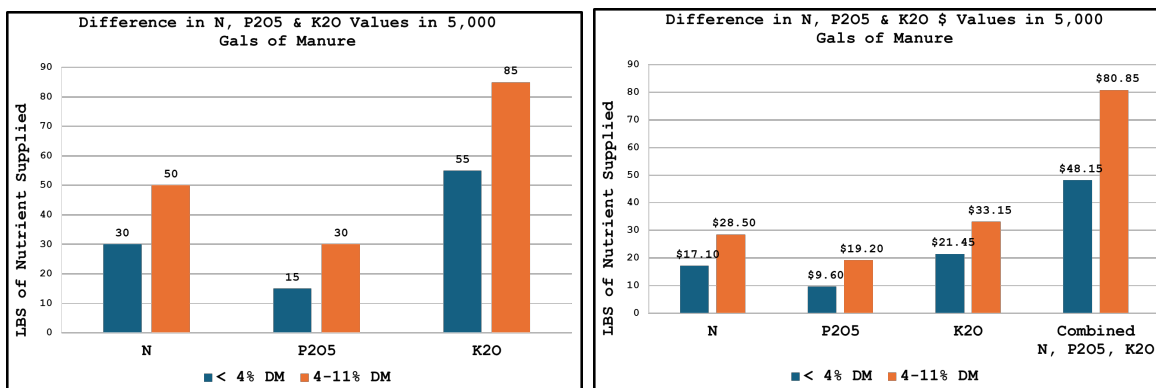
Crops & Soils

The Economics behind Hauling and Applying Manure in 2024

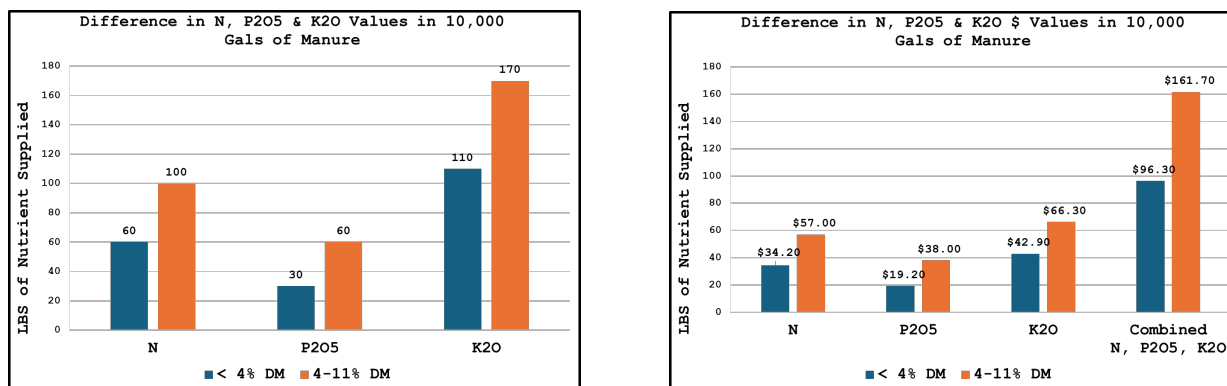
Kevin Jarek, Regional Crops and Soils Educator, UW-Madison Division of Extension

Every year I receive calls from farmers or agricultural professionals about the value of manure. One of those calls was simple... *"Is it a good deal if I can have 5,000 gallons of liquid dairy manure delivered and applied to my field for \$50/load?"* The answer is... it depends. One of the most significant things to consider is what percentage of dry matter (DM) is the manure. Below, you can see the nutrient content and the corresponding \$ value of the nutrients contained in a 5,000 gallon application of dairy manure. The difference? One is < 4% DM while the other is 4-11% DM. I have observed samples pulled on the same day from the same manure pit illustrate what we can observe below. You have nearly double the N, P2O5, and K2O in the 4-11% DM manure than the <4% DM manure. Using the graph on the right, we can see the 4-11% DM manure has a value of \$80.85 vs. \$48.15 for the <4%. If the cost of application is \$50, we have a net gain of \$30.85 for the 4-11% DM vs. a (-\$1.85) for the <4% DM. It should be noted we only accounted for the three nutrients identified. Manure also provides organic matter, sulfur, etc... However, the goal here was to show that it could be a very good deal or just an ok deal. It all depends on the nutrient levels which are highly correlated to the percentage of DM in the manure.

Nutrients were valued at \$0.57 lb./N, \$0.62 lb./P2O5, and \$0.39 lb./K2O



Just a couple of years ago fertilizer prices soared, as a result, the value of manure moved with those prices. However, as prices have come down since their highs of 2-3 years ago, how does that affect the math of handling and applying manure on the farm? Answering that question can be accomplished by looking at a typical 10,000-gallon liquid dairy manure application. As illustrated earlier, I am comparing <4% DM manure with 4-11% DM manure. You can see the total nutrient value of the manures below.

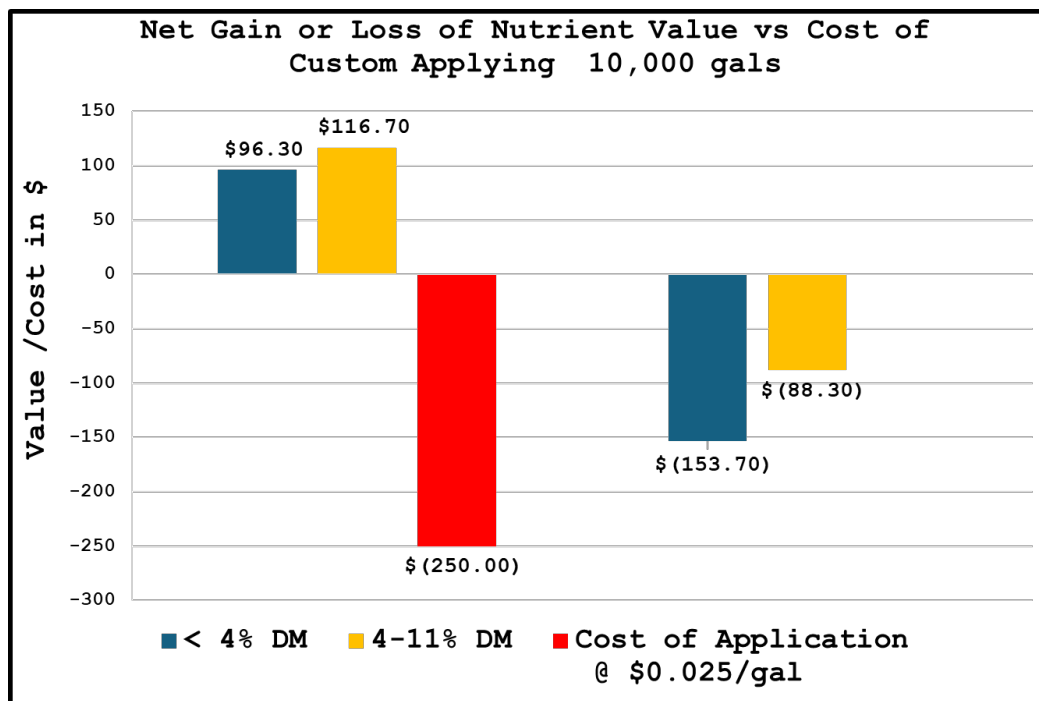


Crops & Soils

The 4-11% DM manure contains approximately \$161.70 in nutrient value whereas the < 4% DM manure had a value of \$96.30. During winter meetings, I asked farmers what their expected costs of hauling were and I received answers as low as \$0.01 to as much as \$0.03 per gallon. It should be noted that the \$0.01 per gallon value was a farm that owned their own equipment and calculated the costs based on in house labor values. Most respondents indicated costs were between \$0.02 - \$0.03 per gallon, so for this example we will use \$0.025 per gallon. You can substitute your own application costs for the example.

Those of us who have worked in agriculture for any significant amount of time are not likely surprised by the results. While many farmers crop enterprise budgets benefit from lower costs associated with purchased commercial fertilizer products, if the cost of hauling manure remains constant (\$0.025 in this example), but the overall total value of the nutrients applied is reduced, it results in the values we see below. You can see the value of the manure nutrients and the cost of applying those nutrients on the left hand side of the graph. Unfortunately or fortunately (depending on which side of the coin you are on) as you can see below, after figuring in a \$250 application cost we have a difference of (-\$153.70) for the < 4% DM manure or (-\$88.30) for the 4-11% DM manure.

Accurately applying and maximizing the value of your farms manure is a critical part of remaining economically viable and environmentally sound. However, like many parts of agriculture right now, the expenses are greater than the value derived from the value of the N, P₂O₅, and K₂O. My suggestion is to focus on the other additional benefits like the organic matter (O.M.), sulfur, and biological enhancement of the soil that our manure sources provide. Manure when properly applied and managed is an asset and should be treated as such, even though this year the values on paper may not fully reflect that on a cost basis.



More information on nutrient values for different types of manure (liquid or solid) and animal sources (dairy, beef, swine, poultry, and horses) can be found in the UW-Madison NPM Fast Facts at <https://ipcm.wisc.edu/wp-content/uploads/sites/54/2022/11/NutrientManagementFastFacts.pdf>.

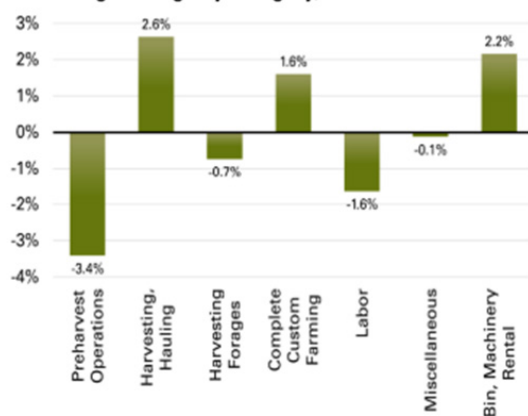
Crops & Soils

Where to Find Custom Rate Charges for 2024 Growing Season

Kevin Jarek, Regional Crops and Soils Educator, UW-Madison Division of Extension

Farmers and agricultural professionals will regularly contact me about custom rate charges for equipment. The 2020 Wisconsin Custom Rate Guide is located at: https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/WI-CRate20.pdf. An update addendum was provided in 2023 and is located at <https://farms.extension.wisc.edu/articles/estimating-custom-rate-for-2023-wisconsin-farm-operations/>. The pdf version of this document is located at: https://farms.extension.wisc.edu/files/2023/04/Estimate_2023_WI_custom_rates.pdf. However, the question remains, "What was the expected change in cost/value for 2024 over 2023?" The 2024 Iowa Farm Custom Rate Survey is available at <https://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf>. We can see the percentage (%) change for each of the categories as we head into the 2024 growing season.

Percentage change by category, 2023 to 2024



The biggest cost increase was 2.6% and was associated with harvesting and hauling grain commodities. This was followed by a 2.2% increase in the cost of grain storage/bins as well as machinery rental rates. The other increase, 1.6% was in "Complete Custom Farming" which includes tillage, planting, pest control, harvesting, and hauling to the farm (no drying). While it may not be as applicable here in Wisconsin, "Labor" was -1.6% lower than last year, followed by "Harvesting Forages" at -0.7%, and "Miscellaneous" at -0.1%.



Badger Crop Connect

TIMELY CROP UPDATES FOR WISCONSIN

The Badger Crop Connect series provides agronomists, crop consultants, and farmers with timely crop updates for Wisconsin. CEUs are available by topic for each presentation.

<https://cropsandsoils.extension.wisc.edu/programs/badger-crop-connect/>

May 22: Weed Science and Early Season Crop Diseases

Dr. Rodrigo Werle – Considerations for Post-Planting Applications

Dr. Damon Smith – Early Season Field Crop Disease Considerations

May 8: Nitrogen Rates and Insect Pests

Chris Bandura – Spring Nitrogen Timing & Rate Considerations

Dr. Emily Bick – Interacting with Wisconsin's Insect Pest Network and Alert System



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May 2024 Ag Newsletter

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