



Extension

UNIVERSITY OF WISCONSIN-MADISON
OUTAGAMIE COUNTY

Agriculture Report

October 2021

Greetings,

As I write this, October is projected to be warmer than normal. At this time, many of you are getting ready to chop or waiting for the harvesting crew to arrive. Things will dry down fast if we get warmer, drier weather going into October.

This past growing season was all over the board. Some areas received buckets of precipitation. Some areas got hail, others wind, and others remained untouched. It all depended on the path of the storms. In general, our area received enough precipitation to have decent yields. Farmers in southeastern and far southern Wisconsin have seen little precipitation along with a large portion of the United States west and southwest of us. Feed inventory is a concern for farmers in these areas. If they have enough stored feed for this year, they are wondering if they will have any carry over for next year.

For dairy farmers, feed prices remain high cutting into their profitability. Some contracted corn for this year, but question what next year's corn prices will be. Our area farmers have good fourth crop growing in the fields and once harvested and mixed into the ration will help lower protein costs.

The USDA's latest World Ag Supply and Demand Estimator (WASDE) report which was released July 12, reduced the 2021 milk production forecast slightly, but increased expected production in 2022. Price projections were reduced for both 2021 and 2022. Expected milk production was increased for 2022 due to estimated higher cow numbers. USDA forecasts a slower than expected milk production per cow for the rest of 2021, but it would still put production at 2.2% higher than 2020.

With the tight profit margins farmers need to operate within, farm efficiencies are paramount. UW-Madison Division of Extension has resources that can help make your farm more efficient. The dairy team will be offering the Badger Dairy Insights again starting in January 2022. Topics covering alternative feeds, nutrition, reproductive strategies, data management, beef X dairy genetics, and animal well-being will be offered by UW-Madison specialists. More information will be forthcoming as these webinars are finalized.

We at Extension hope your fall field work goes well! Please take time to ensure your safety as the crops come off. Let's all hope for good weather and high yields!

Sarah Grotjan

Dairy and Livestock Educator

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920-832-5121 | outagamie.extension.wisc.edu

Upcoming Events

September 2021 – February 2022: BQA in-person trainings

Registration link: <https://www.beeftips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form>

October

6 & 7 Grant Writing Workshop Webinar | 12 pm

Pre-registration is required at:

<https://uwmadison.zoom.us/meeting/register/tJEpc--hqzgsGtRV1-F1u7VfnPP0ZiMzRJRb>

13 Badger Crop Connect | 12:30 pm

27 Badger Crop Connect | 12:30 pm

November

5 Badger Swine Symposium | Arlington, WI | <https://www.wppa.org/badgerswine/>

18 Regional Pest Management Update Meeting | Liberty Hall, Kimberly | 1 pm

Badger Crop Connect

The University of Wisconsin-Madison Division of Extension's Badger Crop Connect, is finishing up the 2021 growing season with several webinars in September and October. The purpose of this series is to provide agronomists, crop consultants and farmers timely crop updates for Wisconsin during the growing season.

October 13: Seed Trait Selection for Pest Management and Yield

October 27: 2021-2022 Grain Marketing Outlook

The October 13 and 27 webinars will focus on seed trait selection and grain marketing respectively. The webinars will be offered at 12:30 PM. Badger Crop Connect is hosted by Extension Crops and Soils educators. There are CCA credits available for each webinar. There is no fee for these webinars, but registration is required. Please register for all fall sessions at <https://go.wisc.edu/bccfall2021>

For more information please visit the Badger Crop Connect webpage at <https://cropsandsoils.extension.wisc.edu/programs/badger-crop-connect/>

2021 Regional Pest Management Update Meeting to Return to Liberty Hall, Kimberly

Kevin Jarek, Crops and Soils Agent, Extension Outagamie County

After the need to go virtual in 2020, the goal in 2021 is to provide farmers and agricultural professionals with the opportunity to participate in an in-person event once again. Three regional events will be held (Nov. 16, 17, and 18) in addition to a virtual meeting (Nov. 19) for those who wish to participate in that manner.

The event Outagamie County will host will be on Thursday, November 18, 2021. As of the time of this writing the flyer and details are still being finalized. However, we know presentations will begin promptly at 1:00 p.m. (registration will occur beforehand) and meetings are expected to conclude by 4:00 p.m.

Individuals interested in participating can visit <https://outagamie.extension.wisc.edu/> for more information.

Note: Outagamie County had also hosted the Area Agronomy Update Meeting at Liberty Hall the first week of January for two decades until Covid-19 prevented us from doing so. The hope is we will once again be able to host that event in January 2022; however, those decisions are yet to be made. We ask that you be patient and check <https://outagamie.extension.wisc.edu/> for more details later this fall/early winter.

Event Announcements

Beef Quality Assurance

Beef Quality Assurance (BQA) is a nationally coordinated, state-implemented program that provides systematic information to U.S. beef producers and beef consumers on how common sense husbandry techniques can be coupled with accepted scientific knowledge to raise cattle under optimum management and environmental conditions. BQA guidelines are designed to make certain all beef consumers can take pride in what they purchase – and can trust and have confidence in the entire beef industry.

BQA does more than just help beef producers capture more value from their cattle: BQA also reflects a positive public image and instills consumer confidence in the beef industry. When producers implement the best management practices of a BQA program, they assure the cattle they sell are the best they can be. Today, the stakes are even higher because of increased public attention on animal welfare. BQA is valuable to all beef and dairy producers because it:

- Demonstrates commitment to food safety and quality.
- Safeguards the public image of the beef and dairy industries.
- Upholds consumer confidence in valuable beef products.
- Improves sale value of marketed beef cattle.
- Enhances herd profitability through better management.

HOW CAN YOU BECOME CERTIFIED?

BQA certification can be done online or by attending an in-person training organized by Wisconsin's Beef Quality Assurance Coordinators. Visit **[BQA.org](https://www.bqa.org)** for the online courses. You can select from the type of production that best fits your farm – cow/calf, stocker/backgrounding, feedyard or transportation.

Farmers can also become certified by attending an in-person training.

Dairy farmers: The national dairy FARM program can help dairy producers manage their operations in ways that will insure quality milk as well as produce beef that will meet consumer expectations. All dairy producers that complete a FARM 3.0 evaluation are BQA equivalent.

Register: **<https://www.beef tips.com/cattlemens-corner/beef-quality-assurance/bqa-registration-form/>**
For more information on the FARM program visit: **<https://nationaldairyfarm.com/>**

WISCONSIN'S BEEF QUALITY ASSURANCE COORDINATORS ARE:

TAMMY VAASSEN
WISCONSIN BEEF COUNCIL
957 Liberty Drive, Suite 201
Verona, Wisconsin 53593
(608) 833-9940

SANDY STUTTGEN
EXTENSION TAYLOR COUNTY
(715) 748-3327
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EXTENSION MONROE COUNTY
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Event Announcements

Grant-writing Workshops for Farmers

Are you interested in trying out a new idea on your farm? Have you thought about applying for a grant but weren't sure where to start? On Wednesday, October 6 and Thursday, October 7 UW-Madison Extension will host a 2-part webinar to introduce farmers and agricultural professionals to grant opportunities in agriculture.

On October 6 Margaret Krome from the Michael Fields Agricultural Institute will cover basic principles of grant-writing, including how to design a sound project, when applying for a grant does or does not make sense, and how to find potential funding sources.

On October 7 a panel of grant program staff from USDA's Sustainable Agriculture Research and Education Program and Wisconsin Department of Agriculture's Buy Local Buy Wisconsin, Wisconsin Producer-led Watersheds, and Specialty Crop Block Grant programs, and a farmer who has successfully applied for grants will cover some of the ins and outs of applying for those and other grants.

Both webinars will start at noon. Following the presentations participants are welcome to ask extensive questions of the presenters. Participants will also have the opportunity to review a sample grant application. Potential grant applicants are encouraged to attend both sessions.

Pre-registration is required at:

<https://uwmadison.zoom.us/meeting/register/tJEpc--hqzgsGtRV1-F1u7VfnPP0ZiMzRJRb>

Fox-Wolf Demonstration Farms Network Updates

Receive text notifications about the Upper Fox-Wolf Demonstration Farms Network events by joining the text list. Text FoxWolfDemo (case sensitive) to 88202. You can opt out anytime.

Mark your calendars for the 2022 Farmer Roundtable: Redefining the Soil Health Conversation. Learn from farmers about what's working locally in Fond du Lac, Green Lake, Waushara, Winnebago, Waupaca, and Calumet Counties. The event will be on February 16, 2022 at Fin 'n Feather Showboats in Winneconne, WI. More details to follow as the event approaches.

Badger Swine Symposium

Save the date ~

Badger Swine Symposium

The 2021 Badger Swine Symposium will be held Nov. 5th in Arlington.



Additional info: <https://www.wppa.org/badgerswine/>

News from Others

NCR-SARE Announces 2022 Farmer Rancher Grant Call for Proposals

The 2022 North Central Region - Sustainable Agriculture Research and Education Program (NCR-SARE) Farmer Rancher Grant Call for Proposals is now open.

Farmers and ranchers in the North Central region are invited to submit grant proposals to explore sustainable agriculture solutions to problems on the farm or ranch. Sustainable agriculture is good for the environment, profitable, and socially responsible. Proposals should show how farmers and ranchers plan to use their own innovative ideas to explore sustainable agriculture options and how they will share project results.

Farmer Rancher grants are for ideas initiated by farmers and ranchers and are offered as individual grants (\$15,000 maximum) or team grants for two or more farmers/ranchers who are working together (\$30,000 maximum). NCR-SARE expects to fund about 40 projects in the twelve-state North Central Region with this call. A total of approximately \$720,000 is available for this program.

NCR-SARE will be accepting online submissions for the Farmer Rancher Grant Program. More information about the online submission system can be found in the call for proposals.

Interested applicants can find the call for proposals online as well as useful information for completing a proposal at <https://northcentral.sare.org/grants/apply-for-a-grant/farmer-rancher-grant/>. You can find more information about sustainable agriculture at <http://www.sare.org/>.

Proposals are due on December 2, 2021, at 4 p.m. CST.

Applicants with questions can contact Joan Benjamin, Associate Regional Coordinator and Farmer Rancher Grant Program Coordinator, at benjaminj@lincolnu.edu or 573-681-5545. Applicants should also contact Joan Benjamin if they need a hard copy or an email version of the call for proposals. We revise our calls for proposals each year, which means it is crucial to use the most recent call for proposals.

Each state in SARE's North Central region has one or more SARE State Coordinators who can provide information and assistance to potential grant applicants. Interested applicants can find their State Sustainable Agriculture Coordinator online at <https://northcentral.sare.org/state-programs/state-coordinators/>.

With support from two NCR-SARE Farmer Rancher grants, siblings Erin and Drew Gaugler are exploring and documenting the impact of bale grazing on their North Dakota farm. Outreach activities like their "mailbox tour" are helping the siblings share their findings with neighboring producers.

"Folks in the local area have asked us several questions about what we are doing with the bales, and they wonder how it works," said Erin. "Drew and I have noticed that a handful of those same people have begun to implement bale grazing on their own operation."

The Gauglers were guests on the Soil Sense podcast, talking about their bale grazing project and experience with NCR-SARE. Listen here: <https://anchor.fm/soilsense/episodes/Bale-Grazing-with-Erin-and-Drew-Gaugler-en7atc> or read more about their experiences <https://northcentral.sare.org/news/bale-grazing-to-build-soil-health/>

Support Dairy

Dairy Farmers of Wisconsin is offering "Support Wisconsin Dairy" signs to help continue to support your dairy community efforts.

Here is the link: <https://wisconsinmilk.org/support-dairy-request>



Dairy & Livestock

Dairy Situation and Outlook, September 20, 2021

By Bob Cropp, Professor Emeritus, University of Wisconsin Cooperative Extension, University of Wisconsin-Madison

USDA's milk production report estimated August milk production to be 1.1% higher than a year ago. This is the first time the growth in milk production has been below 2% since March. Milk cow numbers have declined for three consecutive months. August cow numbers declined 19,000 from July and 29,000 from May. The number of cows was still 1.1% higher than a year ago. Just nine of the twenty-four reporting states had fewer milk cows than a year ago with the largest reductions in New Mexico down 15,000 head and Washington down 10,000 head. Adverse weather impacted milk per cow with no increase over a year ago. Ten of the twenty-four states had milk per cow lower than a year ago.

The increase in milk production was lower than recent months in each of the five leading dairy states. Milk production was up 0.7% for California, 2.6% for Wisconsin, 1.1% for Idaho, 0.3% for New York and 3.2% for Texas. South Dakota led all states in increased milk production, up 16.2% from 22,000 more cows and higher milk per cow. Seven of the twenty-four states had less milk production than a year ago and all seven had fewer milk cows. Milk production was 0.5% lower in Arizona, 4.0% lower in Florida, 1.4% lower in Illinois, 9.3% lower in New Mexico, 0.9% lower in Vermont, 2.5% lower in Virginia and 6.6% lower in Washington.

The monthly increase in milk production from the prior year is likely to continue to decline for the remainder of the year and going into next year. Dairy producers are experiencing tight margins with higher feed costs. Severe drought particularly in the West has reduced forage supplies and driven prices higher. Corn and soybean meal prices are much higher than a year ago. With higher feed costs driving tighter margins dairy producers are likely further reduce cow numbers and milk per cow maybe dampened some.

Thus far this month compared to August the price of butter has averaged 11 cents per pound higher, nonfat dry milk 8 cents higher, barrel cheese 5 cents higher, 40-pound cheddar blocks 4 cents higher and dry whey unchanged. With higher dairy product prices, the September Class III price will average about \$16.60 compared to \$15.95 for August and Class IV about \$16.50 compared to \$15.92 for August.

What can we expect for milk prices for the remainder of the year? Butter and cheese prices normally increase as does milk prices September through November. Milk production is seasonally lower late summer, schools open increasing beverage milk sales and dairy product buyers increase purchases of butter and cheese to build stock levels for the strong seasonal demand thanksgiving through Christmas. We can expect price increases this year, but the increase maybe dampened by increased cheese production, relatively high stock levels and possibly some set back in food service if the surge in cases of the Delta virus and mask mandates make consumers more reluctant to eating out and attending public events. The latest dairy product report showed July production of American cheese up 2.3% from a year ago and total cheese production up 3.5%. July 31st Stock levels show American cheese stocks up 4.2% from a year ago and total cheese stocks up 4.1%.

Despite some possible impact of Delta virus cheese sales should remain strong and higher than a year ago. With more eating out rather than home prepared meals beverage milk sales have been running below a year ago. Beverage milk sales for July were 6.3% lower than a year ago with year-to-date sales 5.3% lower. Butter sales may also not be as high as butter sales were strong a year ago with more home prepared meals.

Dairy exports have been a positive factor for milk prices and is expected to continue for the remainder of the year. U.S. dairy product prices remain price competitive to other major exporters. Milk production amongst other major exporters is expected to be no more than 1% higher than a year ago. July U.S. export volume on a milk solids equivalent basis was 7% higher than a year ago, the sixth straight monthly increase. Increased exports to China and Mexico lead the way. Nonfat dry milk/skim milk powder exports were 3.1% lower due to reduced sales to Southeast Asia which may be partially explained by continued congestion at California ports. But whey product exports were up 17.8%, cheese exports up 26.8%, and butterfat exports up 86.1%.

As of now it seems reasonable that Class III could be something like \$16.60 for September, \$17.25 for October and peaking around \$17.60 for November and falling back to \$17.40 for December. Current Class III futures are not this high being in the low \$17's October through December. Class IV could be in the high \$16's to low \$17's September through December. If milk production slows down more than expected and domestic sales are higher along with strong exports prices could end up higher.

Dairy & Livestock

Pregnancy Diagnosis in Dairy Cows

Paul M. Fricke, Professor of Dairy Sciences, gives a talk about Pregnancy Diagnosis in Dairy Cows using PAG Levels in Blood and Milk. Watch the video here: <https://bit.ly/39qITle>



Beef Producer Survey

Livestock Program Area would love beef producer input to shape future beef programming. An anonymous survey was developed (link below) to gather this input - it is 13 questions long and has a mix of multiple choice and short-response questions so we can learn more about Wisconsin beef producers along with future industry challenges and opportunities.

Local beef producers, please fill out the survey and share the link with other beef producers who may not receive this newsletter. While electronic delivery is the main platform being utilized, paper copies can be requested by contacting Sarah Grotjan at 920-832-5129 or email sarah.grotjan@wisc.edu.

The survey is open now and we encourage producers to submit their input as soon as possible. The survey plans to close by December 1.

Survey Links For Extension Newsletters: https://uwmadison.co1.qualtrics.com/jfe/form/SV_8hWjWNpvNuAZ3Yq

Crops & Soils

UW Farmer to Farmer Website

Kevin Jarek – UW-Madison Division of Extension, Crops and Soils Agent – Outagamie County



We went from the worst growing season in 50 years in 2019, to the lowest hay stocks ever recorded in May 2020, to it looking like 1988 up until June 25 this year when we got the first of several 3+ inch rainfalls... then everything changed. We now have people who have too much forage... yes, that is where we now find ourselves.

If you are in the situation described above, UW-Madison, Division of Extension can help. The Farmer to Farmer Hay, Forage and Corn List puts Wisconsin farmers in touch with one another for the purpose of buying and/or selling corn and forage. The Farmer to Farmer list is free of charge to both buyers and sellers. Users can list or search for hay, alfalfa haylage, corn silage, high moisture corn, corn grain, or other forages (i.e., oats, peas, or sorghum). UW-Madison Division of Extension assumes no responsibility in the transaction of buying or selling the items listed on this web site. All transactions and negotiations are handled directly between buyers and sellers.

1. It's free
2. It covers a large geographic area (statewide)
3. Users can adjust the listings as their situation dictates

The link is located at <https://farmertofarmer.extension.wisc.edu/>

Weighing the Risk of Fall Alfalfa Harvest – Balancing Forage Production and Potential Stand Longevity

Kevin Jarek – UW-Madison Division of Extension, Crops and Soils Agent – Outagamie County

Scott Reuss – UW-Madison Division of Extension, Crops, Soils, and Horticulture Educator – Marinette, Oconto Counties

Jamie Patton – UW-Madison Nutrient and Pest Management Program, Senior Outreach Specialist

The decision to take a late summer or fall cutting of alfalfa should be considered carefully. A farm should evaluate current forage needs, economics, stand health, and timing to make the best decision for their individual situation. Although the need for more forage may override some other factors, the timing of harvest is still critical. Fall harvest decisions will impact both short-term forage quality and availability, and potentially affect the long-term viability and productivity of the stand. Volatile weather conditions during the winter and spring months may result in diminished plant health and vigor, while suboptimal stand health and poor soil fertility management further increase the risk of winterkill.

Alfalfa Dormancy and Regrowth

As temperatures fall and day length becomes shorter during late summer, alfalfa plants begin to prepare for winter by storing carbohydrates and proteins in their taproot. In addition, alfalfa plants change their cellular structure and composition to survive freezing temperatures. Accumulated root energy and stored nutrients are used to maintain the plant during winter, as well as supply the necessary resources required during the first week to ten days of early 'green-up' growth until photosynthetic processes can take over.

Alfalfa root carbohydrate and protein root stores can be compromised if temperatures during the winter months rise enough for the plants to break dormancy prematurely and begin establishing new growth. If cold conditions follow an unseasonable warm-up period, the plants may not have enough root stores for a vigorous second spring regrowth attempt. Therefore, any fall harvest strategy that compromises the accumulation of root reserves increases the stand's risk of winter injury, slow spring recovery, and reduced stand vigor, particularly during unseasonably warm winters.

Timing Fall Alfalfa Harvest Based on Growing Degree Days

Research in the northern United States and Canada indicates alfalfa requires 500 growing degree days (GDD, base 41°F) between the final harvest of the season and a killing frost of 24°F for sufficient regrowth to enhance the probability of winter survival and full yield potential the following spring. As a result, harvest should occur when there are more than 500 GDDs remaining in the season,

allowing for root carbohydrate replenishment, or less than 200 GDDs remaining, so plant regrowth is insignificant and previously accumulated root reserves are conserved.

Utilizing 42 years of historical weather data, Dan Undersander, retired UW-Madison Forage Specialist, determined the middle of September through the middle of October is the highest risk period to cut alfalfa in southern Wisconsin (data for Beloit and Lancaster). In northern Wisconsin, (data from Eau Claire, Marshfield and Plymouth) data suggests harvesting alfalfa the last half of September creates the highest risk, with a low probability of accumulating either more than 500 GDD or less than 200 GDD. Delaying harvest until mid-October is often safer for all areas of the state, regardless of the occurrence of frost. Maps detailing the probabilities of accumulating more than 500 GDD or less than 200 GDD can be viewed at <https://fyi.extension.wisc.edu/forage/late-summer-cutting-management-of-alfalfa-3/>.

Additional Alfalfa Harvest Considerations

Farmers should consider individual field characteristics when making a final decision on whether to harvest a fall cutting. Overall management of the fields during the growing season may impact the risk and reward of fall harvest decisions. Evaluating the following factors can help you determine the best strategy.

Harvest Frequency

Fields that have been managed with a harvest interval of 30 days or less often do not replenish their full root energy reserves between cuttings. Therefore, taking a late season fourth/fifth cut in these fields places the alfalfa stand at greater risk for winterkill than taking the third/fourth cut in fields with a longer harvest interval. However, alfalfa genetics should be considered when making fall harvest decisions. Many current alfalfa varieties, particularly with those with good disease resistance and winter hardiness, are designed to withstand more intense cutting schedules than the varieties of the past.

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Crops & Soils

Weighing the Risk of Fall Alfalfa Harvest – Balancing Forage Production and Potential Stand Longevity

Continued from page 8

Stand Health

Alfalfa stands between 18 and 36 months of age) are more tolerant of late season cuttings due to better crown health. More recently established stands are less likely to have accumulated damage from wheel traffic and disease incidence, rendering them more tolerant to environmental stresses than older stands.

Soil Fertility Management

Proper management of soil pH and fertility will improve the winterhardness of alfalfa stands. Maintaining optimal potassium levels has been shown to improve alfalfa winterhardness and tolerance to late cuttings. Alfalfa plants require potassium for many essential plant processes, including activation of enzymes, synthesis of carbohydrates and protein, and water regulation.

Soil fertility should be managed throughout the season. Topdressing alfalfa with potassium in late fall typically will have little impact on that year's overwintering potential. Potassium can be absorbed by the plant in greater quantities or higher concentrations than required (luxury consumption) for normal growth. As a result, care must be taken to not overfertilize the crop. Feeding forages high in potassium to calving or newly fresh cows can lead to hypocalcemia (milk fever).

Soil Moisture Conditions

Harvest decisions should also be based upon soil moisture levels. High soil moisture content can delay the fall dormancy process, increasing the potential for winterkill or winter injury. Therefore, well-drained and/or drier fields may be more tolerant of later cuttings than more poorly drained and/or fields that rapidly saturate during fall precipitation events. In addition, well-drained and drier soils typically have improved trafficability, decreasing the potential for crown damage during the cutting and harvest processes, as well as less potential for frost heaving in early spring.

Harvest Height

When harvesting alfalfa in the fall, it is important to leave at least six inches of stubble. Leaving adequate growth will help insulate the crowns against cold temperatures. Fields with taller plant material will potentially catch and hold more snow than shorter cut fields, helping to further insulate the plants from extreme cold. Plants that are better insulated can experience improved winter survival and sustain yield in the subsequent year.

Increased residue height may also interfere with ice sheet formation, thereby improving air exchange and reducing potential stand suffocation during icing events.

Economics

Often a visual assessment of late season alfalfa yield can be deceptive, resulting in an overestimate of the tonnage available for harvest. The Wisconsin Alfalfa Yield and Persistence Project determined the fall cutting in a four-cut system yields approximately 0.77 tons dry matter/acre dry matter, while the last cutting in a five-cut system yields approximately 0.58 tons dry matter/acre. Simply put, the cost of harvesting a final fall cutting of alfalfa may exceed the value of the harvested forage.

Summary

Ultimately, the timing of fall alfalfa harvest is based upon the probability that Mother Nature is going to do what she has done in the past. Luckily, alfalfa forage quality changes little during September. Therefore, harvest decisions should be based on the likelihood of accumulating more than 500 GDD or less than 200 GDD to enhance or preserve stand root carbohydrate stores. If protecting stands from winterkill is a priority, delaying fall harvest until mid-October is likely the correct strategy.

Additional Resources

<https://fyi.extension.wisc.edu/forage/evaluating-and-managing-alfalfa-stands-for-winter-injury/>

<https://fyi.extension.wisc.edu/forage/alfalfa-stand-assessment-is-this-stand-good-enough-to-keep/>

<https://learningstore.extension.wisc.edu/products/alfalfa-management-guide-p1047>

<https://cdn.shopify.com/s/files/1/0145/8808/4272/files/A2809.pdf>



Crops & Soils

Top 8 Recommendations for Winter Wheat Establishment in 2021

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

1. Variety selection: please see the 2020 WI Winter Wheat Performance Test – update the old 2002 link to 2021 at <https://ipcm.wisc.edu/blog/2021/07/wisconsin-winter-wheat-performance-trials/>

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. 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 to compensate for reduced fall tillering.

8. Crop rotation matters.

Read or download the full 8 page publication here https://coolbean.info/wp-content/uploads/sites/3/2020/08/Top-8-Wheat-recs_20.pdf

Seeds/acre Million	Seeds/sq ft	Row Width (in)		
		6	7	7.5
		Seeds per foot row		
0.4	9.2	5	5	6
0.5	11.5	6	7	7
0.6	13.8	7	8	9
0.7	16.1	8	9	10
0.8	18.4	9	11	11
0.9	20.7	10	12	13
1.0	23.0	11	13	14
1.1	25.3	12	14	16
1.2	27.5	14	16	17
1.3	29.8	15	17	19
1.4	32.1	16	19	20
1.5	34.4	17	20	22
1.6	36.7	18	21	23
1.7	39.0	20	23	24
1.8	41.3	21	24	26
1.9	43.6	22	25	27
2.0	45.9	23	27	29
2.1	48.2	24	28	30
2.2	50.5	25	29	32
2.3	52.8	26	31	33
2.4	55.1	28	32	34
2.5	57.4	30	33	36

Seeding Rate for Sept 1 to Sept 15

Seeding Rate for Sept 15 to Oct 1

Seeding Rate for Oct 1 to Oct 10

- Decreased TW:TKW
 - ↑ seeding rate
 - ↓ seeding vigor
- Delayed planting
 - ↑ lack of tillers

Seeds/lb	Seeds per acre (x 1 million)						
	1.0	1.2	1.4	1.6	1.8	2.0	2.2
10000	100	120	140	160	180	200	220
11000	91	109	127	145	164	182	200
12000	83	100	117	133	150	167	183
13000	77	92	108	123	138	154	169
14000	71	86	100	114	129	143	157
15000	67	80	93	107	120	133	147
16000	63	75	88	100	113	125	138
17000	59	71	82	94	106	118	129

*This table is based on 100% germination. Adjust your seeding rate by the % germ printed on your bag.

2021 Wisconsin Waterhemp Herbicide Resistance Project (2,4-D, dicamba & glufosinate)

Rodrigo Werle, Assistant Professor & Weed Specialist,
Department of Agronomy, University of Wisconsin-Madison

Earlier this year we received a few complaints regarding lack of performance of dicamba (XtendiMax, Engenia, Status), 2,4-D (Enlist One) and/or glufosinate (Liberty) on POST control of waterhemp in corn and soybean fields in Wisconsin.

We invite Wisconsin farmers and agronomists to collect waterhemp seeds this fall from their row crop production fields where one of these three herbicides failed to provide effective POST control and submit them to UW-Madison for herbicide resistance screenings.

There is no cost associated to the herbicide resistance screening. The only cost will be your time to collect the seed samples and mail them to: Rodrigo Werle, 1575 Linden Drive, Madison, WI 53706. We intend to screen all waterhemp samples in the greenhouse for resistance to 2,4-D, dicamba and glufosinate.

Please download the Seed Collection Form (<https://bit.ly/2VYILas>) for information on how to collect the waterhemp seeds for the project. Please fill out the information necessary for each waterhemp sample collected online in this survey (<https://bit.ly/2XAeCOF>).

submit the form with the seed sample. Samples will only be included in the herbicide resistance screening if the information requested herein is provided by the farmer/agronomist.

For questions, please contact
Kevin Jarek Kevin.Jarek@wisc.edu or
Rodrigo Werle rwerle@wisc.edu

We thank the Wisconsin Soybean Marketing Board and the Take Action Program for supporting this project and also those submitting the waterhemp seed samples.

- Rodrigo Werle, Assistant Professor and Extension Cropping Systems Weed Scientist, Department of Agronomy, University of Wisconsin-Madison
- Felipe Faleco, Weed Science Graduate Student, Department of Agronomy, University of Wisconsin-Madison
- Nick Arneson, Weed Science Outreach Specialist, Department of Agronomy, University of Wisconsin-Madison

Crops & Soils

Custom Rates for 2021 Fall Harvest, Tillage, and Manure Handling

Kevin Jarek – UW-Madison Division of Extension, Crops and Soils Agent – Outagamie County

The Wisconsin Custom Rate Guide was updated and released in April 2021. As we move through fall harvest, I selected the categories that I typically receive calls/texts/emails/questions about this time of year. Details about how the information is presented and what is included is copied directly from the guide and included in the text below.

Most of the rates in this release include the cost of hiring a machine with fuel and operator, but exclude the cost of any materials. No attempt was made to distinguish between rates charged by custom operators who perform these operations as their main source of income and those who do custom work as a secondary source of income. This summary makes no effort to evaluate fairness of rates being charged.

Those who wish to view, download, or print the full 2020 Wisconsin Custom Rate Guide can do so at https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/WI-CRate20.pdf. The Wisconsin Guide is generally updated every three years.

Those who wish to view values updated on an annual basis may want to compare WI values to those in the 2021 Iowa Farm Custom Rate Survey at <https://www.extension.iastate.edu/agdm/crops/pdf/a3-10.pdf>.

CUSTOM HARVESTING AND COMBINING SERVICES, WISCONSIN, 2020												
Operation	Wisconsin			Region 1			Region 2			Region 3		
	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median
		Dollars/acre			Dollars/acre			Dollars/acre			Dollars/acre	
Corn												
Combine	234	33.59	33.25	55	32.65	32.00	74	34.01	35.00	105	33.79	33.00
Harvest (combine, grain cart, haul local to farm)	83	41.56	40.00	21	43.67	-	21	43.79	40.00	41	39.34	-
Corn stalks												
Shredding	26	17.87	15.00	7	21.86	12.00	8	15.50	15.00	11	17.05	-
Baling (dollars/large bale)	28	11.46	10.50	7	10.07	-	13	13.04	11.00	8	10.13	9.00
Small grains												
Combine (from swath)	29	33.59	32.00	10	32.30	30.00	11	36.64	35.00	8	31.00	30.00
Combine (straight)	112	33.53	33.00	27	33.36	-	22	35.09	35.00	63	33.05	33.00
Swathing (self-propelled)	10	22.00	20.50	-	-	-	-	-	-	-	-	-
Soybeans												
Combine	222	32.96	32.00	55	31.57	32.00	70	34.24	35.00	97	32.83	32.00
Harvest (combine, grain cart, haul local to farm)	67	39.06	38.00	15	39.53	-	20	39.85	39.00	32	38.34	38.00

- Insufficient data.

After very wet fall soil conditions in 2018 and 2019 provided little or no opportunity for fall field, 2020 offered farmers some relief. It appears that the fall of 2021 will be more similar to the fall of 2020 than that of 2018/19. As such, many will want to take advantage of the opportunity to get a head start on next year's work.

CUSTOM LAND TILLAGE SERVICES, WISCONSIN, 2020												
Operation	Wisconsin			Region 1			Region 2			Region 3		
	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median
		Dollars/acre			Dollars/acre			Dollars/acre			Dollars/acre	
Chisel plowing	86	18.61	18.00	30	18.50	20.00	17	16.59	17.00	39	19.58	20.00
Disk/ripper/harrow combination	43	18.62	18.00	14	18.64	18.50	13	18.15	18.00	16	18.97	20.00
Field cultivating	87	14.94	15.00	23	15.61	16.00	15	14.53	15.00	49	14.76	15.00
Moldboard plowing	20	23.37	24.00	12	21.50	21.00	-	-	-	8	26.18	24.50
Rotary hoe	6	11.58	11.50	-	-	-	-	-	-	-	-	-
Vertical tillage	66	17.04	16.00	12	17.05	15.80	15	16.00	15.00	39	17.44	16.00
Finishing disk	35	17.77	18.00	15	17.67	18.00	-	-	-	16	17.81	16.00
Offset disk	9	16.89	20.00	-	-	-	-	-	-	5	19.60	20.00
Disk w/ digger & drag	7	20.43	-	5	22.80	-	-	-	-	-	-	-
Row cultivator with fertilizer	15	12.75	13.00	-	-	-	-	-	-	10	13.20	13.50
Row cultivator without fertilizer	9	15.11	14.00	-	-	-	-	-	-	6	16.17	15.50
Subsoiling (16-20 in. deep)	39	21.01	20.00	11	22.18	20.00	11	18.27	-	17	22.03	22.00

- Insufficient data.

Continued on page 12

Crops & Soils

Custom Rates for 2021 Fall Harvest, Tillage, and Manure Handling

Continued from page 11

Manure hauling and application rates are included below.

CUSTOM MANURE SERVICES, WISCONSIN, 2020												
Operation	Wisconsin			Region 1			Region 2			Region 3		
	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median	Number of reports	Average	Median
Cost Per Hour		Dollars/hour			Dollars/hour			Dollars/hour			Dollars/hour	
Solid Manure												
Removal	7	99.43	-	-	-	-	-	-	-	5	92.00	-
Removal and spreading	15	135.00	100.00	5	182.00	-	-	-	-	8	115.00	100.00
Spreading	12	111.67	100.00	-	-	-	-	-	-	8	113.13	105.00
Liquid Manure												
Hauling and spreading (surface)	26	105.12	100.00	8	111.25	115.00	-	-	-	15	106.00	100.00
Hauling and spreading (injection)	6	132.50	145.00	-	-	-	-	-	-	-	-	-
Agitation boot	16	283.44	295.00	-	-	-	-	-	-	10	279.50	295.00
Cost Per Gallon		Dollars/1,000 gallons			Dollars/1,000 gallons			Dollars/1,000 gallons			Dollars/1,000 gallons	
Liquid Manure												
Hauling and spreading (surface)	8	9.37	8.50	-	-	-	-	-	-	-	-	-
Dragline pumping and spreading (surface)	11	9.41	10.00	-	-	-	-	-	-	8	9.63	10.00
Dragline pumping and spreading (injection)	15	8.22	8.00	-	-	-	-	-	-	7	8.22	8.00

All charts are sourced from the Wisconsin Custom Rate Guide 2020.

Let's Talk About the Weather

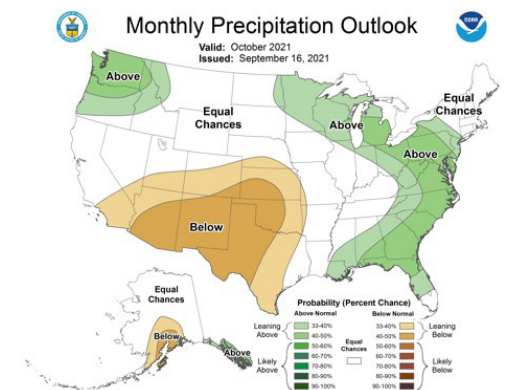
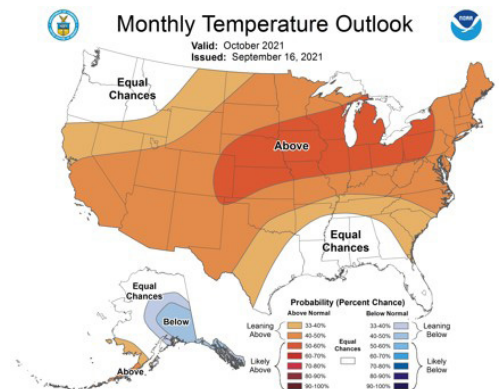
Kevin Jarek – UW-Madison Division of Extension, Crops and Soils Agent – Outagamie County

Weather models can and often do change; however, when it comes to the 30-day temperature outlook for October, NOAA (National Oceanic Atmospheric Administration) has been predicting for several months we would have an enhanced probability (50-60% increase) over EC (Equal Chance) for warmer than normal temperatures. We all remember October 2020, right? Snow, cold, and unseasonably poor conditions resulted in an early exit from the fields for many. Fortunately, November 2020 warmed back up long enough for many to at least get some fall fieldwork done in preparation for spring 2021. If the model holds true, we should not have a repeat of last year. Past experience suggests it can be 70 degrees on Halloween or it can be 30 degrees with snow... lets hope the forecasters are predicting a treat to replace the trick we all experienced a year ago.

As you can see from the precipitation outlook model, the map suggests we have a slightly enhanced probability of receiving more precipitation than normal. Those looking to plant winter wheat after October 1 along with those who plan to take a mid-late October cutting of alfalfa may want to consider these predictions when planning those field operations. These conditions may benefit some of the later planted winter wheat. However, when we cut alfalfa in October, our general strategy is to not accumulate more than 200 growing degree days so the plant immediately goes dormant, and therefore doesn't expend root reserves on unnecessary regrowth. You may want to monitor these conditions to limit any avoidable impact of a late October cutting.

Maps are sourced from NOAA and are available at:

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/lead14/index.php



Crops & Soils

High Moisture Shell Corn Conversion Table

Equivalent Price Per Ton - High Moisture Shell Corn Conversion Table at
<https://cdp.wisc.edu/decision-tools/production-tools/>

Ver 1.3 - 11/20/05 Equivalent Price Per Ton of High Moisture Shell Corn

- 1 Enter base moisture content for dry corn (suggested range 14 to 15.5%)
- 2 Enter starting corn price for table
- 3** Water shrink factor (automatically calculated from base moisture)
 Constant Shrink Factor: Sum of water shrink plus handling loss (per point)
 (typically between the water shrink factor in 3a and 3b) 3a: 3b:
- 4 Enter LP gas price (\$/gal) 4a: Enter estimated LP gas loss to remove 1 point moisture (range 0.0155 - 0.0300) see Table A or Table B
- 5 Enter electricity price (\$/KWH) 5a: Enter estimated KWH needed to remove 1 point moisture (range 0.0106 - 0.02810) see Table A or Table B
- 6 Enter chulling costs (\$/cwt)

Equivalent Price/Ton* of High Moisture Shelled Corn

Jeff Kay, Windesboro County Agricultural/Farm Management Agent (Retired) and Gary Frank, Center for Dairy Profitability (Retired)
 2005 Revision by Nick Schneider, Winnebago County Agriculture Agent

Moisture % Wet	the Wet Kernel	% Shrink	Dry Bushels	Price per Dry Bushel									
				\$4.50	\$4.60	\$4.70	\$4.80	\$4.90	\$5.00	\$5.10	\$5.20	\$5.30	\$5.40
15.0	2000	0.00	35.71	\$16.01	\$16.42	\$16.83	\$17.24	\$17.65	\$18.06	\$18.47	\$18.88	\$19.29	\$19.70
16.0	2000	1.10	35.20	\$15.70	\$16.11	\$16.52	\$16.93	\$17.34	\$17.75	\$18.16	\$18.57	\$18.98	\$19.39
17.0	2000	2.20	34.69	\$15.40	\$15.81	\$16.22	\$16.63	\$17.04	\$17.45	\$17.86	\$18.27	\$18.68	\$19.09
18.0	2000	3.30	34.18	\$15.10	\$15.51	\$15.92	\$16.33	\$16.74	\$17.15	\$17.56	\$17.97	\$18.38	\$18.79
19.0	2000	4.40	33.67	\$14.80	\$15.21	\$15.62	\$16.03	\$16.44	\$16.85	\$17.26	\$17.67	\$18.08	\$18.49
20.0	2000	5.50	33.16	\$14.50	\$14.91	\$15.32	\$15.73	\$16.14	\$16.55	\$16.96	\$17.37	\$17.78	\$18.19
21.0	2000	6.60	32.65	\$14.20	\$14.61	\$15.02	\$15.43	\$15.84	\$16.25	\$16.66	\$17.07	\$17.48	\$17.89
22.0	2000	7.70	32.14	\$13.90	\$14.31	\$14.72	\$15.13	\$15.54	\$15.95	\$16.36	\$16.77	\$17.18	\$17.59
23.0	2000	8.80	31.63	\$13.60	\$14.01	\$14.42	\$14.83	\$15.24	\$15.65	\$16.06	\$16.47	\$16.88	\$17.29
24.0	2000	9.90	31.12	\$13.30	\$13.71	\$14.12	\$14.53	\$14.94	\$15.35	\$15.76	\$16.17	\$16.58	\$16.99
25.0	2000	11.00	30.61	\$13.00	\$13.41	\$13.82	\$14.23	\$14.64	\$15.05	\$15.46	\$15.87	\$16.28	\$16.69
26.0	2000	12.10	30.10	\$12.70	\$13.11	\$13.52	\$13.93	\$14.34	\$14.75	\$15.16	\$15.57	\$15.98	\$16.39
27.0	2000	13.20	29.59	\$12.40	\$12.81	\$13.22	\$13.63	\$14.04	\$14.45	\$14.86	\$15.27	\$15.68	\$16.09
28.0	2000	14.30	29.08	\$12.10	\$12.51	\$12.92	\$13.33	\$13.74	\$14.15	\$14.56	\$14.97	\$15.38	\$15.79
29.0	2000	15.40	28.57	\$11.80	\$12.21	\$12.62	\$13.03	\$13.44	\$13.85	\$14.26	\$14.67	\$15.08	\$15.49
30.0	2000	16.50	28.06	\$11.50	\$11.91	\$12.32	\$12.73	\$13.14	\$13.55	\$13.96	\$14.37	\$14.78	\$15.19
31.0	2000	17.60	27.55	\$11.20	\$11.61	\$12.02	\$12.43	\$12.84	\$13.25	\$13.66	\$14.07	\$14.48	\$14.89
32.0	2000	18.70	27.04	\$10.90	\$11.31	\$11.72	\$12.13	\$12.54	\$12.95	\$13.36	\$13.77	\$14.18	\$14.59
33.0	2000	19.80	26.53	\$10.60	\$11.01	\$11.42	\$11.83	\$12.24	\$12.65	\$13.06	\$13.47	\$13.88	\$14.29
34.0	2000	20.90	26.02	\$10.30	\$10.71	\$11.12	\$11.53	\$11.94	\$12.35	\$12.76	\$13.17	\$13.58	\$13.99
35.0	2000	22.00	25.51	\$10.00	\$10.41	\$10.82	\$11.23	\$11.64	\$12.05	\$12.46	\$12.87	\$13.28	\$13.69
36.0	2000	23.10	25.00	\$9.70	\$10.11	\$10.52	\$10.93	\$11.34	\$11.75	\$12.16	\$12.57	\$12.98	\$13.39
37.0	2000	24.20	24.49	\$9.40	\$9.81	\$10.22	\$10.63	\$11.04	\$11.45	\$11.86	\$12.27	\$12.68	\$13.09
38.0	2000	25.30	23.98	\$9.10	\$9.51	\$9.92	\$10.33	\$10.74	\$11.15	\$11.56	\$11.97	\$12.38	\$12.79
39.0	2000	26.40	23.47	\$8.80	\$9.21	\$9.62	\$10.03	\$10.44	\$10.85	\$11.26	\$11.67	\$12.08	\$12.49
40.0	2000	27.50	22.96	\$8.50	\$8.91	\$9.32	\$9.73	\$10.14	\$10.55	\$10.96	\$11.37	\$11.78	\$12.19
41.0	2000	28.60	22.45	\$8.20	\$8.61	\$9.02	\$9.43	\$9.84	\$10.25	\$10.66	\$11.07	\$11.48	\$11.89

* If you must harvest this corn, subtract the harvesting costs; and if you can only use dry corn, subtract drying costs. Of course the price you pay will be determined by supply and demand conditions in your area and negotiations between you and the seller, but unless there are special circumstances it should not be above the price shown here.
 ** National Corn Handbook NC161 "Calculating Grain Weight Shrinkage in Corn Due to Mechanical Drying" demonstrates two methods for calculating total shrink. The value found in 3a is the constant shrink factor. Typical constant shrink factors range from 1.6% to 1.5% per point. You may allow the constant shrink factor to be calculated or directly enter the constant shrink factor used at a local elevator. The constant shrink factor found in 3b cannot be less than the water shrink factor in 3a. 3b is used to calculate the % shrink.

Hay Market Demand and Price Report for the Upper Midwest September 9, 2021

Hay Grade	Bale type	Price (\$/ton)		
		Average	Minimum	Maximum
Prime (> 151 RFV/RFQ)	Small Square	\$236.00	\$210.00	\$280.00
	Large Square	\$223.00	\$160.00	\$285.00
	Large Round	\$193.00	\$140.00	\$250.00
Grade 1 (125 to 150 RFV/RFQ)	Small Square	\$171.00	\$130.00	\$224.00
	Large Square	\$172.00	\$120.00	\$225.00
	Large Round	\$159.00	\$110.00	\$240.00
Grade 2 (103 to 124 RFV/RFQ)	Small Square	No Reported Sales		
	Large Square	\$136.00	\$95.00	\$225.00
	Large Round	\$131.00	\$90.00	\$167.00
Grade 3 (87 to 102 RFV/RFQ)	Small Square	No Reported Sales		
	Large Square	\$101.00	\$95.00	\$110.00
	Large Round	\$91.00	\$50.00	\$135.00

To view this and previous reports, visit the
 Team Forage website:

<https://fyi.extension.wisc.edu/forage/>



Extension

UNIVERSITY OF WISCONSIN-MADISON
OUTAGAMIE COUNTY

October 2021 Ag Newsletter
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