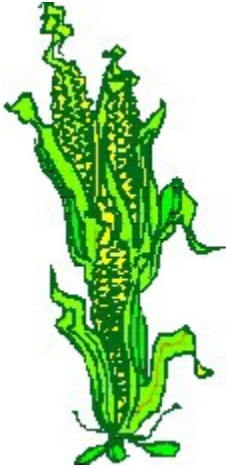


Courthouse
1926 Hall Avenue
Marinette, WI 54143
Phone: 715-732-7510



If you will need any type of accommodation or assistance as you attend any Extension sponsored event, please contact the host county or Scott at the Marinette County office at least two days prior to the event. All requests will be confidential.

Scott Reuss
715-732-7510
1-877-884-4408
cell 715-923-0807
sreuss@marinettecounty.com

An EEO/Affirmative Action Employer, University of Wisconsin-Extension provides equal opportunities in employment and programming, including Title IX and ADA requirements.

December, 2020 Agriculture Newsletter

Starting January 1st, there will be a significant change to Agricultural Extension programming in our two counties. For nearly 40 years, the two counties have each had an agriculture agent and a two-county specialization agreement in place whereby the Oconto position was dairy/livestock and the Marinette position was crops/horticulture. As of Jan. 1, there will be one agriculture agent serving the two counties in a 50%/50% sharing.

I will be continuing in this two-county position, and will do my best to offer group programs; conduct local research; and provide individualized, detailed information that help you keep your farms and agribusinesses profitable and meeting your goals. To truly meet these goals, I will need your help. I need you to share your programming and research needs with me, particularly in the dairy and livestock sides of our business.

I do not know, yet, what we will do as a schedule in the two offices. As decisions are made, you will be made aware of them through this newsletter. For now, please send me your thoughts and needs to e-mail scott.reuss@wisc.edu or sreuss@marinettecounty.com or text/call my cell at 715-923-0807.



Scott Reuss

Table of Contents

Page 2	Beef Educational Events Flier
Pages 3/4	Round Bale B-Wrap Research Synopsis
Page 5	Project Recovery; Beans & Bull Webinars
Page 6	Agronomy Update; Crop Variety Trials & Selection
Page 7	Dairy & Farm Management & Forages Webinar Schedule
Page 8	Land Rent & Contracting Events; Pesticide Applicator Training Update



Wisconsin Beef Special Edition



Join us for our **free webinar series!** UW-Madison Extension Cow/Calf Days and Wisconsin Feeder Workshops will be combined to create the **Wisconsin Beef Special Edition Webinar Series**. Join your local Extension Livestock Program Educators, UW Outreach Specialist, and esteemed keynote speakers as they present current topics on beef production.

A different topic will be presented at each **Tuesday evening** session. Take the opportunity to learn from and discuss with experts on the following date or listen to the recording when it works best for you (registration required).

Register and mark your calendars!

Using the Estimating Hay Needs and Heifer Enterprise Budget Decision Tools Amanda Cauffman, Bill Halfman, Carolyn Ihde, Ryan Sterry Extension Livestock Program Educators	December 8, 2020
An Update on Mineral and Vitamin Needs for Beef Cattle* Dr. Stephanie Hansen, Iowa State University	January 12, 2021
Driftless Region Beef Conference Register at: http://www.aep.iastate.edu/beef/	January 26-28, 2021
Management of Newly Weaned Calves in the Feedlot* Dr. Dan Thompson, DVM, Iowa State University	February 9, 2021
Hairy Heel Wart: A Threat for the Health and Production of Cattle in Beef Operations* Dr. Doerte Doepfer, UW-Madison School of Veterinarian Medicine	February 23, 2021
Pasture Weed Management Dr. Mark Renz, UW-Madison Extension Specialist	March 9, 2021
Direct Marketing Meat and Introduction to Meat Suite Matt LeRoux, Cornell Cooperative Extension	March 23, 2021

Each session will begin at 7:00 PM CT with a presentation followed by a Q& A session until 8:30 PM CT.

*Beef Quality Assurance (BQA) education credits will be available for those currently certified upon completion of session.

Register here: go.wisc.edu/FarmReadyResearch

BREATHABLE FILM BALE WRAP ON ROUND BALES STORED LONG-TERM PAYS OFF, RESEARCH SHOWS

Fae Holin, MFA Communication Specialist

A relatively new “breathable” bale wrap, called B-Wrap®, can maintain the relative feed value (RFV) of alfalfa round bales stored outside long-term, according to University of Minnesota research funded, in part, by the Midwest Forage Association. B-Wrap was compared to plastic twine and net wrap on conventional and reduced-lignin alfalfa bales.

“If you’re going to store hay for 90 days or less, it doesn’t really matter what wrap type you use. But if you are storing hay for more than 90 days, B-Wrap is going to pay for itself,” says Krishona Martinson. A University of Minnesota Equine Specialist, Martinson conducted the research with colleagues Alfredo DiCostanzo, Extension Animal Scientist, Craig Sheaffer, Forage Agronomist, and graduate student Amanda Reiter.

“I think people can use this data strategically and ask themselves: ‘When am I going to feed out this hay?’ “ Martinson says. Better-quality hay needed the following spring, before calving season, could be wrapped with B-Wrap while net wrap could be used on hay fed to cattle coming off pasture in the fall, for example.

Twelve conventional and 12 reduced-lignin alfalfa round bales were wrapped, in groups of four, with B-Wrap, plastic twine, and net wrap in June 2017. All bales were stored on rounded sides about 5” apart on wood pallets for one year; they were weighed every three months, and stratified hay cores were taken of each bale’s outer 6” and inner 6-18”, says Martinson.

At harvest, the researchers did see differences between conventional and reduced-lignin alfalfa in neutral detergent fiber (NDF) and acid detergent lignin content. “But, fairly quickly after baling and storage, those differences were no longer seen. If you have water penetration during storage, different nutrients become more concentrated while others leach out of the bales, and the relatively small differences at baling can get lost over time.” More in-depth research comparing the impact of storage on the two types of varieties could be warranted, she indicated.

After 12 months in outdoor storage, the twine-tied and net-wrapped bales showed moisture concentrations up to 27% with dry matter losses of 7% and 5%, respectively. Moisture levels of bales wrapped with B-Wrap didn’t change and dry matter levels were maintained throughout the storage period.

Because of moisture penetrating the twine-tied and net-wrapped bales, forage quality declines were observed after 180 days of storage. After a year in storage, nonstructural carbohydrates, NDF digestibility at 48 hours, and RFV were greater in B-Wrap bales compared to twine bales, while forage quality of net-wrapped bales was intermediate between the other wraps.

Martinson likens B-Wrap to Tyvek, a house wrap used to keep air and water out, while letting water vapor escape. B-Wrap, developed by Ambraco (now Tama USA Inc.) and John Deere, appears to shield hay from precipitation using a technology that allows water vapor to escape from bales through microscopic pores.

The cost per bale wrapped with B-Wrap – \$8.33 – may alarm farmers used to paying \$1.17/bale for net wrap or \$1/bale for twine. “But the economics speak for themselves and it (B-Wrap) makes sense because it appears to be doing a better job at preserving the quality by repelling moisture,” Martinson says. The graphic below shows that the bale value of B-Wrap is maintained during outdoor storage compared to bale values of twine- and net-wrapped-bound bales, which decrease.



Krishona Martinson



Sets of alfalfa hay round bales, tied with plastic twine or bound with net wrap or B-Wrap, were compared for forage quality and mold concentrations after being stored for one year outside on wood pallets, placed about 5” apart.

Photos: Krishona Martinson

After more than a year in storage, all 24 bales were fed to Angus cow-calf pairs. “The bales looked tough at the end of the year,” Martinson says. But, even after 16 months in outdoor storage, the weathered layer didn’t go beyond the outside 6” on any of the three bale wrap types, she adds.

“To me, that is quite surprising. That still represents a significant amount of the bale, but the minute you got beyond that weathered layer, which was very thin on the B-Wrap bales and much thicker on the twine bales, those bales looked great. That really showcases the baling technology we have seen progress

over the years, where we are making these very dense, firm bales that are better able to shed water. It is also absolutely key that you need to stack bales on pallets to stop ground moisture from wicking up, and also keep them from freezing to the ground.”

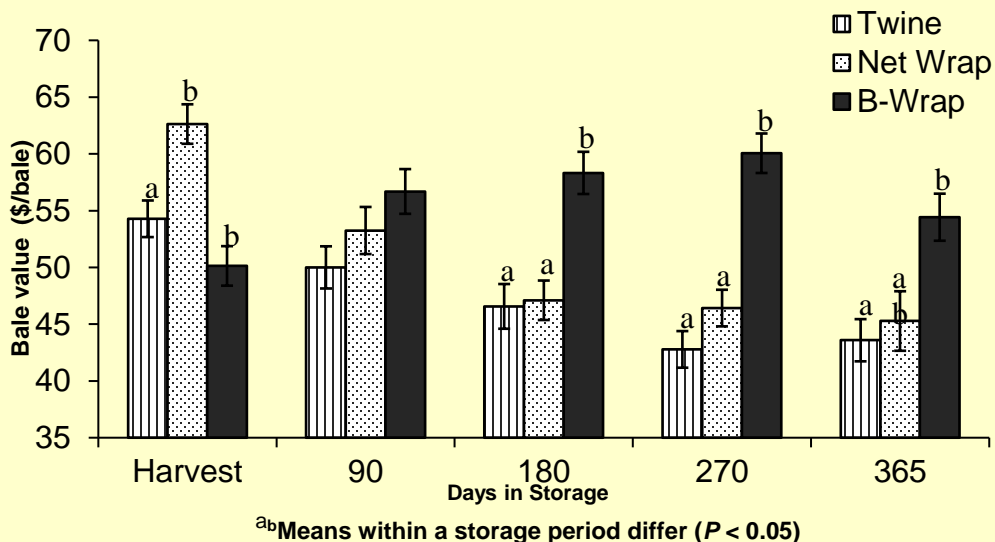
Three bales, one of each wrap type, were placed in round bale feeders for each 48-hour feeding period, and cattle were given free access to all feeders. Hay waste was collected and measured, as were forage quality and mold counts. Current recommendations for mold concentrations considered B-Wrap hay as safe to feed, net-wrap hay as feed with caution, and twine-tied hay as unsafe to feed. However, no health issues were observed, likely because the cattle tended to flip the most moldy hay out of feeders (the outer 6” of bales) and because of the short feeding trial.

“The mold count directly impacted how the cattle chose to eat the hay,” Martinson and her team found. From one feeding to another, the placement of specific bale types would be switched. “It was very interesting watching the cattle preference and behaviors. They would actively seek out the hay that they preferred most, which happened to be the B-Wrap where the mold counts were much lower.”

Beef cow dry matter intake was greater from B-Wrap bales (7.9 kg/cow) compared with twine-tied bales (4.2 kg/cow). Intake from net-wrapped bales was intermediate between the twine and net wrap bales.

The research was funded in part by the Midwest Forage Association’s Midwest Forage Research Program, Ambraco, and John Deere.

Bale value (\$/bale) of alfalfa hay stored outside for 365 days and bound in either twine, net wrap, or B-Wrap



Alfalfa hay round bales of all three wrap types looked “tough,” with weathered outside layers, after more than a year of being stored outside on wood pallets. But beneath the layers laid green hay, although twine-tied and net-wrapped bales held higher mold counts and B-Wrap-bound bales were preferred by beef cattle during the feeding trial, says Krishona Martinson, University of Minnesota Equine Specialist, one of the researchers comparing bale wrap types.



PROJECT RECOVERY

Stress and distress are common during a pandemic. You are not alone...

Project Recovery is an outreach program working with individuals, families, and communities impacted by COVID-19 throughout the state of Wisconsin.

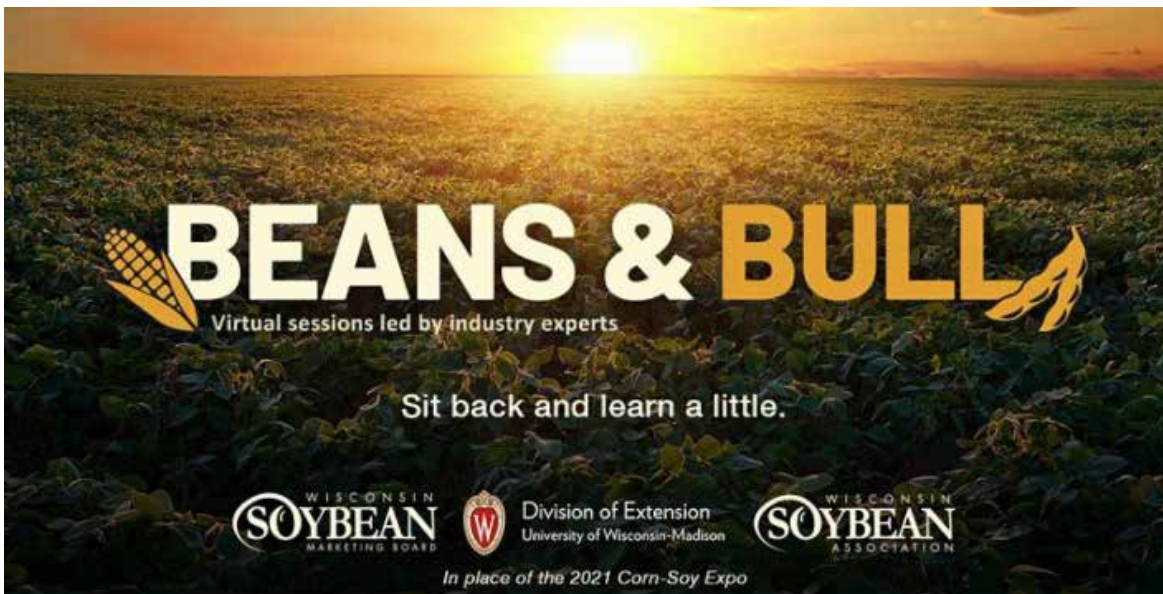
Trained outreach workers provide community-based support and education to help farmers, farmworkers, and their communities cope during this stressful time.

Free, confidential, anonymous support is available

Phone: 1-833-FARM-HELP (833) 327-6435 (toll free)

Website: www.projectrecoverywi.org

Facebook: @projectrecovery.org



This is a free webinar series with the following schedule. Register for each individual session at <https://www.eventbrite.com/o/wisconsin-soybean-31727060605> or e-mail Scott R. and he will e-mail you this link, rather than having to type it all in perfectly.

- * Thursday, January 21st, 7 PM On-farm Research, Cover Crops and Soil Health
- * Thursday, January 28th, 7 PM Ag Econ Update and Transition Planning
- * Thursday, February 4th, 7 PM Waterhemp and White Mold the Scourge of Wisconsin
- * Thursday, February 11th, 7 PM Early Season Soybean Management Decisions
- * Thursday, February 18th, 7 PM On-Farm Technologies
- * Thursday, February 25th, 7 PM Marketing and Corn Management

Crop Variety Performance Trial Results

As you continue to make variety/hybrid purchase decisions for the 2021 planting season, do remember to utilize the UW Trial results as part of the data you analyze to compare good and bad points of available seed. Trial information from 2020 is now available, along with historical information, as well. Either go to these link addresses, or simply type UW Variety Trials and your crop of interest into a search engine.

+ Corn: <http://corn.agronomy.wisc.edu/HT/Default.aspx> Info from 2011-2020. Remember that one of the trial sites is just east of Coleman, so certainly locally applicable data.

+ Soybean: <https://coolbean.info/soybean-research/variety-trial-results/> Info from 2008-2020.

+ Oat & Barley (& Winter Wheat, as well): <https://coolbean.info/small-grains/variety-trial-results/> 2008-2020.

+ Perennial Forages: <https://fyi.extension.wisc.edu/forage/category/trial-results/> Less easy site to use, but lists red clover and cool season perennial grasses' data from 1996 to present and alfalfa data through 2016. For current alfalfa information, visit the National Alfalfa and Forage Alliance's 2021 Alfalfa Variety Ratings at http://alfalfa.org/pdf/2021_Alfalfa_Variety_Leaflet.pdf This publication doesn't list yields, but does rate according to disease and insect resistance, dormancy, winterhardiness, etc....

Remember that the highest likelihood of making a good hybrid/variety decision depends on using as much information as you can find to make that decision. The more sites/years that a cultivar does well, the more likely it is to perform well in your fields in 2021.

Selection of what you plant is the most important decision you make prior to the planting season. There are obviously many decisions that impact yield, including: planting date, agronomic BMP's, harvest date, herbicide regimen, pest scouting and appropriate management practices, and other things. However, we can easily see 100 bushel swings in corn yield solely due to hybrid selection; 15 bushel swings in soybean yield; 15-40 bushel swings in small grains; and up to 3 tons DM/acre for alfalfa and other perennial forages. We never want to spend money on anything that doesn't give us positive return on investment, but the right hybrid/cultivar for your soils and management practices are well worth the possibly higher price you pay.

Agronomy Update Meetings Free in 2021

The 2021 Agronomy Update Meetings will be virtual this year due to COVID-19. The meetings will present the latest information on hybrid/variety performance, an analysis and discussion of last year's growing season, and updated recommendations for field crop production. CEUs will be offered in Crop Management for Certified Crop Advisers. There is no charge for this event, but registration is required. There are two sessions to choose from, both sessions will present the same information. Please choose the one that best fits your schedule.

Meetings will be held on:

§ Tuesday, January 5 9:00 am to 11:50 am

§ Thursday, January 7 1:00 pm to 3:50 pm

Register by January 3, 2021. Register at <https://go.wisc.edu/f44ix5>

Presentations:

Joe Lauer, UW-Madison Corn Agronomist

§ 2020 weather impact on corn performance

§ What has 20-yr's of strip-tillage research shown us for corn production?

§ The impact of environment on corn silage yield and quality

Shawn Conley, UW-Madison Soybean and Small Grain Agronomist

§ Agronomically optimal soybean seeding rates and associated risk across North America

§ Does precision planting matter in soybean?

§ Wheat grain/straw yield, grain quality, and disease benefits associated with increased mgmt intensity

Matt Akins, UW Assistant Scientist & Dairy Extension Specialist and Kevin Jarek, UW Crops and Soils Agent

§ Wisconsin's Forage Landscape - What Do the Trends Tell Us and What Does This Mean to Farmers?"



Farm Ready Research is Extension's agriculture winter webinar meeting series for farmers and ag professionals. Join the webinars to learn the most up-to-date information on topics from dairy and livestock production to farm management resources. Sessions begin December 2020 and run through April 2021. See a full list of topics and register at go.wisc.edu/FarmReadyResearch

Date	Time	Event
Dec. 15	1 pm	Badger Dairy Insight: Optimizing Management for Calf Health & Welfare
Jan. 5	1 pm	Badger Dairy Insight: Feeding for Profits – nutrient digestibility and milk components
Jan. 8	11 am	Farm Management Fridays: Navigating your farm business through 2021
Jan. 12	1 pm	Badger Dairy Insight: Preparing for an Emergency
Jan. 15	11 am	Farm Management Fridays: In it for the long haul – Cash flow during a crisis
Jan. 20	7:30 pm	Basic Lambing Skills for the Beginning Shepherd
Jan. 22	11 am	Farm Management Fridays: Farm-gate Economic Outlook Forum
Jan. 26	1 pm	Badger Dairy Insight: Emerging Reproductive Strategies-Using IVF embryo transfer
Feb. 2	1 pm	Badger Dairy Insight: Animal care on the farm and beyond
Feb. 2	1 pm	Badger Dairy Insight: Getting the most out of your forages
Feb. 5	11 am	Farm Management Fridays: Standing strong and resolute as a guardian of your equity

Focus on Forage Webinar Series

A group of Extension personnel are putting the finishing details to a series of forage management focused webinars that will be taking place on Wednesday afternoons, from 12:30 to 1:30 p.m. between January 13 and March 3. If you are interested in any of these events, contact Scott Reuss via phone or e-mail, or go to one of the local office websites to find the registration information. The February sessions may change dates/topics yet, so be sure to get current information. These events will include producer speakers (2020 Forage Superbowl Top Entrants in most cases), research results and recommendations, and current BMP's for each type of forage production situation. Q & A will also be available with each event.

Date	Primary Topic
January 13	Corn Silage – conventional, BMR, Harvesting BMP's
January 20	Alfalfa – Selection, Establishment, Harvest Management
January 27	Perennial Grasses and Mixed Legume/Grasses
February 3	Small Grain Forages – Early Season & Late season spring grains, Fall planted Winter grains
February 10	Forage Councils' Day – Research Updates, Mgmt. presenter, local council breakouts
February 17	Midwest Forage Association Meetings
February 24	Forage Harvest & Storage Issues and Opportunities
March 3	Overwintering management and response with non-alfalfa forage alternatives

Regional or State-wide Farmland Rent Values & Contracting Webinars Available

UW-Madison, Division of Extension, is sponsoring a pair of free events to help both landowners and active producers better understand farmland rent dynamics and farmland rental contracting best practices. These live webinars are being held on Tuesday, December 15, from 6:30 to 7:30 p.m. and on Friday, December 18, from 11 a.m. to Noon.

The Tuesday evening event is sponsored by the Langlade, Lincoln, Marinette, Oconto, and Shawano County offices. It will feature discussion on rental contracting best practices, WI laws which affect farmland renting agreements, contracting resources available for use, and current farmland sale/rental values in these counties. Presenters for this session are Dan Marzu, Lincoln/Langlade Counties' Agriculture Educator, and Scott Reuss, Marinette County Agriculture Agent. Shawano County Agriculture Educator Kimberly Schmidt will also be involved in this event.

This event is free to attend. Pre-registration is required and can be done by going to this website, <https://go.wisc.edu/d9a4mw> or you can send an e-mail to scott.reuss@wisc.edu and indicate that you want to register for the event. Any questions about the program can also be e-mailed to this address, or call Scott Reuss, Marinette County Agriculture Agent with UW-Madison, Division of Extension, at 715-732-7510. Registrants will receive e-mail confirmation of their registration which will include the webinar link.

The Friday morning event is sponsored by state-wide Division of Extension and includes a broader discussion of farmland values by Simon Jette Nantel, UW-River Falls Extension Farm Management Specialist. All participants will then hear about building a robust lease and then have the opportunity to join group discussions on one of five topics. Those topics are Renting Irrigated Land; Flexible Leases; Leasing Buildings/Facilities; Grazing/Pasture Leases; and Small Acreage or Long Term Investment Rental Situations.

Registration for the Dec. 18 morning event needs to take place by going to this website: <https://extension.wisc.edu/agriculture/farm-ready-research/> and then select the Dec. 18 Farmland Markets and Leasing Contracts Webinar. You will be asked to sign up for one of the five discussion topics (breakout rooms) listed above when you register.

Pesticide Applicator Training Licenses – Check your expiration date and read this!

There is also a big change to the Pesticide Applicator Training process for 2021. If your PAT private (categories 100 & 101) license expires after January 31, 2020, DATCP is automatically extending your license date to Dec. 31, of 2021. The only persons needing to go through certification processes soon are new applicators or those who have not renewed and your license expired prior to 1-31-2020.

If you do need to take the PAT training and test, there is no local in-person training allowed in 2021. You must either do the self-study option, or enroll in one of the online training opportunities.

A manual must be purchased ahead of training and/or testing. You can order manuals online at the PAT Store <https://patstore.wisc.edu> with a credit card, or use a mail form available at <https://go.wisc.edu/patbook> and send it with a check. In-person purchasing at the Marinette Extension County Office for \$30 is available, but you should call Nancy Servais at 715-732-7514 to ensure proper timing of picking up a book, or arrange with her to send a check and have her send the book to you.

Training: Online training is available. To access this, visit the PAT Store at <https://patstore.wisc.edu>. Scroll down to "Private Applicator Training" and select General Farming 100/101. Then choose B. "Online Private Applicator Training." Cost is \$10 per person. The training needs to be done in one sitting, so plan on 3.5 hours (there are breaks built in to the training), and needs to be done the 1st through the 14th of the month.

Testing: Online testing will be available through the patstore website above by mid-December. If you have taken the online training, you need to achieve 50% correct score, or achieve 70% correct if you are doing the self-study option. You can also arrange to take the test, but you need to contact Scott Reuss for that, at 715-923-0807 (text or call).