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4-H - Positive Youth Development

Holly Luerssen, 4-H Program Educator

- This year we added a podcast onto our Marathon County 4-H Facebook page. It has been an amazing way to connect to new audiences through video. Being able to sit down and talk about things happening in 4-H is an engaging piece for our 4-H families to stay informed in real time. Episodes typically run between 5-15 minutes, offering the perfect opportunity for us to take a deep dive on any topic. This podcast is going to be a valuable tool in strengthening communication, building a community with our 4-H families, and also being able to share what's new in Marathon County 4-H.
- June is national dairy month. The Marathon County 4-H program is partnering with the Children's Imaginarium in Wausau to celebrate. We are expanding the minds of everyone with fun and exciting facts about the dairy world. You can find us here every other Friday for the rest of the summer. Feel free to check out what we will have in store!
- We are excited to add Parks and Recreation programming to our summer schedule. On June 16th, we visited the UWSP-Wausau Campus and worked with 20–30 youth in grades 3–8. Through fun, dairy-themed activities, we explored topics like milk bubbles, the differences between skim and whole milk, and the science behind "milk fireworks." Youth also created watercolor art projects to take home. Our goal is to spark interest in both Wisconsin's dairy industry and Marathon County 4-H. We'll return on July 7th and look forward to growing this partnership.
- Marathon County 4-H held another one of their popular painting nights at Clay Corner in Wausau. There were 21 people the enjoyed a night of painting. Participants had the option to paint a pig mug, a cow mug, a 4-H mug, a fair ribbon vase, or a silky chicken. The room was filled with smiles and laughter as the youth got to know each other. The best part of this event is that these art projects can be entered into the fair.
- Marathon County 4-H teamed up with Wood County 4-H for our summer camp. This year's theme was
 Write Your Own Fairytale Adventure. Over 100 youth, volunteers, and staff participated at the camp.
 Activities included canoeing, arts and crafts, team building, survival skills, and campfire skits. Youth are
 encouraged to get out of their comfort zone and try new things. The beauty of camp is it's never the same
 and you always walk away having learned something new.



Agriculture

Heather Schlesser, Dairy Agent Melissa Ohlrich, Regional Crops Educator

- Planning a hybrid workshop series for dairy and beef producers, and dairy workers (in Spanish) in September 2025. The goal is to provide information and techniques to boost cattle caretakers' confidence in preparing the cow for calving, obstetric techniques, and newborn calf care so that their health and reproductive programs maintain their farm's economic viability. Total Reach: We will report this number once registration is known.
 - o Local area livestock and dairy educators received requests for obstetric training. The economic viability of both livestock and dairy farms hinges on calving animals contributing young stock, and therefore, the farm's income from beef and dairy sales each year. Time and money are heavily invested in the farm's reproductive program to obtain a live calf from every breeding. The nutrition and health of the pregnant animal contribute to her potential for successful gestation, calving, future rebreeding, and a healthy calf. Newborn calf care provides the opportunity for calves to reach their full genetic potential as productive individuals for years to come. Educators Stuttgen, Schlesser, and Sterry upgraded their skills for teaching obstetrics and calf care topics by attending the University of Nebraska Beef Extension 2025 Calving College Producer Education Series. Schlesser's Marathon County Extension office purchased a bovine calving model to use in this series. Schlesser and Stuttgen have previously taught obstetrics training for beef and dairy producers. As a bovine veterinarian, Stuttgen has lifelong experience in obstetrics. Lippert was invited to the planning group to provide instruction in dairy transition cow nutrition. During virtual classrooms and in-person hands-on training, dairy and beef producers will learn about transition cow diets and body condition to recognizing key signs of labor and handling difficult deliveries with precision and gain practical strategies to support both cow and calf health. Dairy workers will have sessions dedicated to them that will be translated into Spanish. For the producer's convenience, they may choose a September afternoon or evening ZOOM or in-person hands-on combination that fits their needs. Zoom sessions and in-person locations have been confirmed. UW-Madison OAIC has been contacted to provide simultaneous interpretation in Spanish. Marketing materials are being developed. Educators are developing curricula for their topics. Outcomes will be reported after the workshop series is completed.
- An artificial insemination course for dairy and beef producers, where they learned how to breed their own
 cattle. Through this program, producers will be able to save money and increase reproductive rates by
 breeding their own cattle in a timely fashion. Total Reach: 255 Emma email contacts of people that have
 signed up to be notified of a new course, 321 Emma email contacts of people that have signed up to be
 included in our Agriculture Newsletter, 366 Taylor County Extension Emma dairy and beef producers
 (subscribers) who received information about the Al course.
 - o In 2012, artificial insemination (AI) companies in Wisconsin stopped offering farmers artificial insemination training. During this time, these companies also concentrated on their services to areas with more significant concentrations of dairy cattle. These changes in business practices



created voids in artificial insemination services. As a result of this void and the need for continual improvement, this educator and Sandy Stuttgen developed an AI program for beef and dairy producers. As a result of this work, 14 people were trained to inseminate their cattle artificially. Participants were asked to complete a pre/post style evaluation to measure their change in knowledge relating to the various topics covered. Participants indicated an overall change in knowledge of 1.48 on a 4-point Likert scale. The most significant change in knowledge occurred on the topic of Repro Tract and semen handling. Participants were also asked to rank the various topics taught, and they indicated that AI practice in cows, AI Technique, Reproductive tracts and semen handling, AI Equipment, and Heat Detection were their most valued topics, with reproductive anatomy and physiology coming in second.

- A fact sheet, an article, and a podcast were created for dairy farmers, where readers will increase their knowledge on cross-ventilated dairy barns and the benefits and drawbacks of the design. By doing so, farmers will better understand how this type of barn can benefit herd comfort, resulting in better milk production and profitability. Total Reach: The article, fact sheet, and podcast are posted on the UW-Madison Division of Extension Dairy website and can be found at https://dairy.extension.wisc.edu/articles/cross-ventilation-in-dairy-buildings/
 - o Cross-ventilated dairy barns, particularly low-profile cross-ventilated (LPCV) systems, are increasingly recognized as a climate-smart solution for modern dairy operations. These barns offer a controlled environment that improves cow comfort, reduces heat stress, and promotes overall herd health and productivity. Unlike naturally ventilated barns, which rely heavily on variable outdoor conditions, cross-ventilated systems use large fans and strategically placed inlets to move air laterally across the barn. This consistent airflow enhances temperature regulation, removes excess moisture, and reduces airborne contaminants, resulting in more stable and welfare-friendly conditions for dairy cows. From a climate-smart agriculture standpoint, LPCV barns support environmental goals by helping to reduce the carbon intensity of milk production. Healthier, less stressed cows tend to produce more milk with fewer resources, indirectly lowering methane emissions per unit of output. Additionally, the consistent barn environment enables more efficient manure handling and can contribute to improved nutrient management practices. While the upfront construction and operating costs for cross-ventilated barns can be significant, the long-term benefits in productivity, animal welfare, and climate resilience position them as a promising option in the transition to more sustainable dairy systems. As the dairy industry responds to climate pressures, integrating modern ventilation technologies with precision management offers a viable path forward. A series of fact sheets, articles, and audio podcasts were developed on various barn designs and ventilation schemes. Farmers will gain additional resources on cross-ventilation benefits and drawbacks. Farmers will better understand electricity use and barn design of a crossventilated barn.
- A Wisconsin Idea Collaboration for dairy producers and those who service dairy producers, where videos
 and fact sheets were produced on ventilation and cow comfort. Through this effort/program/activity, dairy
 producers will increase their knowledge of cow comfort and ventilation, therefore improving herd health,
 welfare, and profitability.



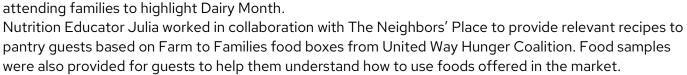
- o In modern dairy farming, the health and productivity of cows are directly impacted by their living environment. One of the key environmental factors is the quality of ventilation in the cow barn. Insufficient ventilation can lead to poor air quality, increased humidity, and the buildup of harmful gases such as ammonia and carbon dioxide. This not only compromises cow comfort but also increases the likelihood of respiratory infections, heat stress, and reduced milk production. To improve cow health and optimize profitability, it is essential to implement effective ventilation systems that provide fresh air, control humidity, and regulate temperature. Proper barn ventilation supports the overall well-being of the cows, reduces the risk of disease, enhances milk yield, and can lower veterinary costs. In turn, these improvements directly impact the farm's bottom line by increasing production efficiency and reducing losses associated with health-related issues. This situation highlights the need for a comprehensive approach to barn ventilation to improve both cow welfare and farm profitability. Creation of videos and fact sheets based on the needs expressed by stakeholders. Producers will implement cow heat abatement strategies in cattle housing to increase animal comfort, herd health and welfare, and profitability. These efforts will also implement climate-smart strategies to improve milk production efficiency.
- Creation of a data visualization tool for forage growers, crop consultants and livestock nutritionists in
 collaboration with local forage councils and agribusinesses. The goal is to provide timely, easy to use corn
 silage dry down data that these audiences can leverage to identify the optimum timing to harvest corn
 silage in their area which will produce forage more likely to meet animal nutrient requirements to support
 production.
 - Across the state, crops educators and consultants support forage growers' samples and report the whole plant moisture of corn for silage. Whole plant moisture is a key guiding factor for making corn silage harvest decisions. There was a need to update the tool used by Extension educators to share this data with our growers. In response to the need, we identified the important data that we need to collect from growers during the dry down events and created tools to allow for simple data collection at the dry down sites. With the help of our data scientist, a tool was created that provides this data but also allows the user to manipulate the table and maps to see the information that is most relevant to their needs. Color coding data points provides an indication of the suitability for harvest of each data point, making it easy for stakeholders to visualize the data.
- Planning a September 2025 in-person late afternoon meeting hosted on a commercial beef operation and taught by livestock, and crop and soil educators. The goal is to increase cow-calf producers' understanding of heifer reproduction and fall forage management to improve their farm's economic viability. Total Reach: will be reported once registration numbers are known.
 - The Livestock Program Plan of Work objectives include leading multi-county cow-calf production in-person meetings. Beef programming evaluation data and producer surveys indicate that cow-calf producers value in-person sessions where scientifically peer-reviewed topics are taught that will help increase their bottom line. Stuttgen solicited a local beef producer and the North Central WI Cattlemen's Association to sponsor this twilight meeting near Stanley, WI, in September 2025. Livestock educators Stuttgen, Sterry, and Halfman, along with crop and soil educators Ohlrich and Clark, are developing the topics they will teach. Curriculum and marketing are underway. Outcomes will be reported after the meeting from the attendees' evaluation responses.



FoodWIse

Mallory McGivern, FoodWIse Administrator Michelle Van Krey, Healthy Communities Coordinator Julia Perock, FoodWIse Educator

- Shared leadership in the Marathon County Hunger Coalition, where emphasis is placed on expanding healthy food access and developing new projects and partnerships that will empower Marathon County families through education and shared resources. The coalition's goal is to increase access to healthy foods in order to achieve health equity for all county residents.
- Supported Marathon County United Way by providing vegetable samples and recipes using MyPlate resources at the United Way Hunger Coalition Mobile Food Pantry at the Community Center of Hope in Mosinee.
- Nutrition Educator Julia and Healthy Communities Coordinator Michelle attended a Dairy Month event at the Children's Imaginarium along with Marathon County 4H that was filmed by Discover Wisconsin. Dairy samples and recipes were provided for attending families to highlight Dairy Month.
- pantry quests based on Farm to Families food boxes from United Way Hunger Coalition. Food samples were also provided for guests to help them understand how to use foods offered in the market.



Horticulture

Janell Wehr, Horticulture Educator

- A workshop for a grief support group, where participants applied container gardening techniques to successfully grow dwarf cherry tomatoes. This effort was designed to result in a sense of accomplishment, increased self-esteem, and positive socialization.
 - o A collaborative workshop was conducted in partnership with a local grief support group, during which participants engaged in potting dwarf cherry tomatoes. The session provided instruction on key container gardening practices, including appropriate potting media, container dimensions, cultivar selection, fertilization strategies, and irrigation techniques.
 - o All participants reported limited prior experience with container gardening. Half indicated engaging in social activities with others on a "somewhat" frequent basis, while the remainder reported doing so either frequently or "as much as possible." When asked whether successfully growing container tomatoes would provide a sense of accomplishment, all participants responded affirmatively. Regarding potential impacts on self-esteem, one participant responded negatively, while the others were evenly divided between "yes" and "unsure." In response to the therapeutic potential of growing



dwarf cherry tomatoes in containers, one participant remarked, "I love it!" and another stated, "Good to be with people." Reach: 6

- A program where participants learned best management practices for conserving soil health. The goal of this program was to reduce pesticide misuse.
 - Participants gained foundational knowledge in soil science and nutrient management. They identified components of soil texture and learned how organic matter, particularly compost, improves both sandy and clay soils. Instruction covered the relationship between soil pH and nutrient availability, appropriate composting materials and application timing, and the role of primary plant nutrients in plant development. Participants also practiced interpreting fertilizer labels and were introduced to the process and importance of soil testing.
 - Evaluation results indicated strong learning outcomes. Seventy-five percent of participants reported they could explain soil texture "well," while 25% indicated "somewhat." All participants stated they could explain both the impact of soil pH on nutrient availability and the importance of organic matter. Open-ended responses highlighted increased understanding of nutrient functions (NPK), composting practices, soil testing, and fertilizer selection. Anticipated behavior changes included sharing knowledge, conducting soil tests, and selecting fertilizers based on plant needs and nutrient content. Reach: 4
- A diagnostic service for the general public, where Marathon and Wood County residents' horticultural inquiries are answered through evidence-based resources. This effort is designed to reduce pollution through horticultural product (pesticides and fertilizers) misuse.

Natural Resources

Kris Tiles, NRI Program Manager Anna James, Regional Natural Resources Educator Jen McNelly, Regional Natural Resources Groundwater Educator

- A learning program for family forest owners where families learned about tools to help them transition land ownership to the next generation with the desired outcome of reducing parcelization of woodlands due to family conflict. Total Reach: 48 individuals register for class from 13 families of woodland owners
 - When the primary owners of woodland acres age and need to decide what should be done with the land after they are gone, they are faced with a variety of emotional, financial, and physical choices to make for their legacy. Family owned woodlands face risks of fragmentation and loss of personal and ecological value when considering land transfers. Many landowners struggle with starting and having conversations about succession planning, often resulting in family conflict, unclear intentions, and ultimately, the parcelization of forested land. Recognizing this critical need, we hosted the "Your Land, Your Legacy" class, which is designed specifically for family forest owners. There can be a growing concern among woodland owners about how to ensure their land remains intact and well-managed for future generations- all while leaving their heirs happy. The goal is to help prepare families with knowledge, tools, and professional guidance necessary to navigate the complex process of estate and legacy planning. Classes are facilitated through a combination of



asynchronous materials online and four live virtual sessions, participants engaged in structured learning that included dialogue tools, estate planning worksheets, and access to legal and financial professionals. As facilitators we worked to create open communication and informed decision—making, the program aimed to reduce the risk of land parcelization and promote long-term stewardship of Wisconsin's forested landscapes. Through asynchronous and synchronous learning, we held 4 virtual sessions for landowners and their families where they gained access to tools for family dialogue, worksheets for estate planning, and estate planning professionals. We had 48 individuals registered for class from 13 families participating. This represented 10 counties in Wisconsin. Impact surveys will be done in January of 2026.

- A study to monitor how land use changes affect nitrate concentrations in groundwater, and to foster environmental awareness and stewardship amongst school aged children. Results from this study will help city and school administrators evaluate the impacts of the land use changes.
 - Abbotsford is located in an area of north central Wisconsin where groundwater quantity is limited to a thin shallow aquifer that is impacted with nitrates. One of the city's well fields is located on school property. The land use was changed from row crops to restored prairie and school forest in an attempt to improve groundwater quality. The Wisconsin Department of Natural Resources (WDNR) contracted with WGNHS to evaluate groundwater quality and establish a conceptual model for groundwater flow around the wellfield and to engage Abbotsford schools in an attempt to incorporate groundwater education into the district's curriculum. WGNHS subcontracted the well drilling and worked with Abbotsford schools to have students visit the drilling site and to make observations of the aquifer material. In May and September 2025, WGNHS will provide additional training and material support (a water quality meter, sampling supplies, etc.) to support the school taking over long term monitoring at the site. WGNHS will provide ongoing technical support for the analysis and interpretation of the results.
- A project for Wisconsin woodland owners where they will work with a forester to get a Forest Stewardship Plan. Through this program, woodland owners will receive a plan that will allow them to identify goals for their property, plan for the future of their land, and implement management activities. Total Reach: 29 Cooperating Foresters have joined the project to write Forest Stewardship Plan 45 Woodland Owners have been connected with Forester to get a plan 10 Forest Stewardship Plans completed 541 New Forested Acres in a Forest Stewardship Plan
 - Wisconsin has made great strides in private forest landowner engagement, more than 21,000 new landowners have received a property visit from a professional forester since 2018. These landowners have received personalized information about their property and are poised to act in their woods. The cost of getting a Forest Stewardship Plan can be prohibitive for some woodland owners, but those same plans are commonly required to participate in cost-share programs that help pay for woodland management activities. We created the Wisconsin Stewardship Plan Project (WSPP) to help Wisconsin landowners take the next step by making it possible for them to get a Forest Stewardship plan for their woodlands. WSPP created a network of private foresters that will write plans across the state. The Wisconsin DNR received a grant so that the project could pay the private foresters for the plans they write. When an eligible woodland owner signs up, the project will connect them with a private forester that can write a Stewardship Plan in their area. The woodland owner



works with the private forester to identify goals for their woodlands and strategies to reach goals, and the process ends with the landowner having a Forest Stewardship Plan. Targeted outreach to woodland owners that have done a walkthrough with their DNR forester, but do not have a management plan, is planned for the future to help the project continue to grow. Outreach will include emailing information about the program and/or a mailing. We will also connect with partner organizations to help us proliferate information about the project in their network. The Wisconsin Stewardship Plan Project will increase the number of landowners who have a Forest Stewardship Plan for their property. In 2024, 10 landowners received a new plan, covering 541 acres of woodland in Wisconsin. Further this will increase the number of woodland owners that have the required management plan to apply for cost share programs that can financially help with management activities. Our project removes the financial barrier to getting a Forest Stewardship Plan for some landowners by using grant funding to pay for the plans. UW Extension Forestry will continue to engage and provide resources for woodland owners after they get a Forest Stewardship Plan, so participants feel better prepared to implement their plan. The project is also employing private foresters across the state by providing plan writing opportunities. The hope is that the culmination of this effort will increase forest health across the state.

Additional Extension Outreach Programming Occurring in Marathon County

- Shared leadership in the Eat Right Be Fit coalition in Clark County, where emphasis is placed on the health and safety of Clark County families through increased food access, education and shared resources. The coalition's goal is to develop new projects and partnerships that will advance health equity in Clark County.
- Shared leadership in the Giving Gardens committee of Partners HP, where emphasis is placed on promoting and supporting efforts to maintain community gardens, improve food security, and provide educational programming in Portage County.
- A series of StrongBodies strength training sessions in partnership with Berkshire At The Grove, where older
 adults also receive nutrition and health education. Participants engage in regular strength training exercises
 to improve muscle strength, balance, and flexibility so they can stay healthy and socially connected.
- A 5-week nutrition education series (Discover MyPlate) for 1st grade classrooms at Jefferson & McKinley Elementary School, where students will learn about MyPlate, the five food groups, and try new fruits and vegetables. The goal of the series is for students to learn about being physically active and help them make healthy choices in school and at home. Total Reach: 84 individual youth
- Planning for a spreadsheet tool for dairy producers and consultants. The goal is to help producers
 understand the value of managing inventory and to be able to use the spreadsheet to account for loss and
 varying qualities of feed, and storage methods so that they can better plan and manage feed inventories.
 Feed is the largest expense on a dairy farm, accounting for about half of all input costs.



- Older tools developed for feed inventory management focus heavily on storage in tower silos. Today many different storage systems including bunkers, piles, balage and dry hay may be utilized. A new tool needs to be developed. Currently a tool developed by the beef program is the best we have available, and it needs to be updated for dairy specific considerations. A team of dairy program members has convened to update old publications and spreadsheets and to review similar tools developed by the livestock team. The spreadsheet including many reference tables will become a resource on the dairy program website.
- An article in print and on the internet for a general farm audience, which highlighted the many advances in grazing systems that have made it more productive and worth the consideration of producers as a sound economical way to manage livestock production systems. Total Reach: The Wisconsin Agriculturist has a circulation of 22,000 with multiple members per household in the distribution. The web version is available to a wider audience over an extended period of time and is still having new views after the print publication.
 - As livestock operations become larger and more specialized, many producers are unaware of the many advantages grazing offers for good environmental stewardship, economical production and quality of life for producers. It is advantageous to partner with a farm paper to remind people to consider the benefits of grazing as a viable alternative production system for many different types of farms. Partnering with the Wisconsin Agriculturist, a member of the Farm Progress group of publications found in many states, I was able to highlight how many stereotypes about grazing are incorrect. Grazing can be often be more profitable per head than confinement systems with a little management applying modern production practices to increase productivity as measured by animal performance and pasture yield. Working with Fran O'Leary, editor of the Wisconsin Agriculturist, we produced an article that not only appeared in the May–June issue of their print magazine but is available on the website for an extended period of the informa– Farm Progress website, under the livestock and grazing selection key.

Upcoming Programs

- 4-H Programming Information at <u>marathon.extension.wisc.edu/projects/programs/</u>
- Horticultural Programs Information at https://marathon.extension.wisc.edu/horticulture/programs/



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