

We teach, learn, lead, and serve, connecting people with the University of Wisconsin, and engaging with them in transforming lives and communities.

### 4-H – Positive Youth Development

Holly Luerssen, 4-H Program Educator

#### Welcome to the 2025 Marathon County 4-H Summer Team!

We are excited to welcome back some familiar faces and introduce new ones to our Marathon County 4-H family this summer!

#### Welcome back, Sam Soback!

Sam returns to us as the Marathon County 4-H Summer Intern. After serving as an AmeriCorps member this spring, Sam is back and ready to continue leading and supporting engaging programs throughout the county. We're thrilled to have Sam's passion and experience back on board.

#### Welcome back, Kate Loucks!

Kate rejoins the team as the Marathon County 4-H Program Assistant. A former AmeriCorps member, Kate brings a strong background in youth development and will be instrumental in expanding programs and fostering leadership—especially at our camps. We're so glad to have her talents and energy with us again!



Welcome to our 2025 PYD Summer Interns: Spencer Smith, Olivia Johnson, and Taylor Pawlowicz! These three interns will be focusing on bringing positive youth development programming to community partners including Boys & Girls Clubs, College for Kids, Marathon County Parks & Recreation, local libraries, and more. In addition, they'll play key roles in Summer Camp, the Wisconsin Valley Fair, and other exciting events. We can't wait to see the impact they'll make this summer!

A heartfelt thank you goes out to the Marathon County Leaders Federation, our generous community partners, and UW–Madison for stepping up to help fund these positions after recent AmeriCorps program cuts. Your support ensures that youth across Marathon County continue to have meaningful opportunities to learn, grow, and lead.

Here's to a great summer ahead!

• The Marathon & Wood County 4-H staff developed a training for the 2025 4-H summer camp where youth and adult leaders learned gained a deeper understanding of their role and how to support campers at the



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upcoming 4-H Summer Camp. Total Reach: 20 4-H Youth 2 AmeriCorps Staff 2 4-H Educators 4 approved 4-H volunteers

 4-H Educators created a dynamic training agenda where counselors and adults engaged in meaningful pieces which allowed the staff to begin to build their relationships, better understand behavior traits, how to support campers and to make decisions on the summer camp program. The camp staff will be trained to recognize and acknowledge positive behaviors, lead engaging camp songs and skits, and effectively address behavior corrections through activities & role-playing exercises. This will ensure campers are actively involved in camp activities, fostering a positive atmosphere. Staff will use consistent positive reinforcement strategies and fair, respectful behavior correction techniques to maintain a supportive environment. Allowing camp staff to speak to the overall program will enhance the overall camp experience, ensuring both staff and campers are engaged, supported, and empowered to create a fun and inclusive camp culture.

#### Agriculture

Heather Schlesser, Dairy Agent Melissa Ohlrich, Regional Crops Educator

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



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benefits and drawbacks. Farmers will better understand electricity use and barn design of a cross-ventilated barn.

- A workshop for small ruminant, beef, and dairy producers in collaboration with Extension County and Regional Educators, the UW Extension State Small Ruminant Outreach Specialist, local producer groups, and veterinarians. The goal for this workshop is for producers to manage parasite resistance, anthelmintic use, genetic selection, and pasture management to reduce anthelmintic resistance and economic loss to parasitism. Total Reach: 21 participants 1300 emailed notices via Extension Taylor County newsletter 120 invitations via the North Central WI Cattlemen's Association Newsletter 6 local veterinary clinics invited to participate and invite their clients Paid shopper ads placed Listed with Extension Central calendar.
  - Small ruminants and beef typically obtain most of their nutrition from forage grazed from pastures, as do some dairy production groups. Improper pasture management can increase the impact that internal parasites (gastrointestinal helminths) have on the growth, development, health, and reproductive capabilities of livestock. Overuse of anthelmintics (dewormers) has led to anthelmintic-resistant (AR) parasite populations. AR parasite populations are challenging to manage, can be transferred by animal movements, and, when left unmanaged, can cause animal death. A Fecal Egg Count workshop was held in April 2025 in Abbotsford, WI to educate sheep, goat, beef and dairy producers about parasitism and to teach proper techniques to gather fecal matter, perform fecal egg counts, and make informed management decisions to improve animal health and decrease economic loss of parasitism. 21 producers attended and learned how to evaluate anthelmintic effectiveness and resistance, formulate rotational grazing strategies for improved pasture health, and employ parasite life cycle interactions to decrease anthelmintic use to increase animal health and performance. 100% intend to or would like to make changes to their operations, 72% intend to implement fecal egg counts, and 22% are likely to take fecal samples to the veterinarian. 12 sheep and goat producers practiced performing fecal egg counting to determine when to use anthelmintics. Five beef and dairy producers are scheduled to have fecal egg count testing performed on their farms with Extension educators.

A study to better understand the prevalence of prototheca bovis mastitis across Wisconsin dairy herds. Results from this study will help dairy farmers in identifying animals with contagious mastitis. Total Reach: 48 farm families participated in this study.

Prototheca are colorless, unicellular yeast-like microalgae that cause incurable acute or chronic mastitis in dairy cattle. This pathogen is of particular concern to the dairy industry because it currently cannot be cured, generating a significant economic loss in milk production and unnecessary antibiotic treatment (Huilca-Ibarra et al., 2022). Prototheca infections in cattle typically present as subclinical mastitis infections, which are only detectable through elevated somatic cell counts (white blood cells in the mammary gland) and the presence of Prototheca in the milk. However, Prototheca colonies are easily missed on standard blood agar culture because they are slow growing, often with low colony counts (J. Britten, 2022). Unfortunately, these undetected cases can potentially shed large quantities of Prototheca at milking, spreading the infection to their herd mates. Milk quality is a vital area of interest to dairy farmers as it can result in significant losses in revenue. In 2011 Pinzon-Sanchez et al. reported that overall production loss due to milk quality issues for the average U.S. dairy farm was estimated at \$110 per cow annually. This value changes



based on the number of somatic cells present in the milk. If a dairy has 100 cows with a somatic cell count of 200,000 this will result in a loss of up to \$13,600 per year (Pinzon-Sanchez et al, 2011). Cows with a non-infected mammary gland produce more milk and stay in the herd longer than those harboring infection. Detection of Prototheca can be improved by using a Prototheca selective agar and extending the incubation time to 48 hours. Prior to the addition of these selective Prototheca agars less than 1% of the herds tested by Udder Health Systems, Boise, Idaho, were bulk tank positive for Prototheca (J. Britten, 2022). Dairy farms across Wisconsin were enrolled in this study to determine the prevalence of Prototheca Mastitis. Quarter milk samples were collected from animals that tested positive on the CMT and cultured on specific prototheca agar. Samples from 48 farms were collected with the funds from a Dean's #innovationgrant. Of the 48 farms tested 4 were found to have animals infected with Prototheca Bovis. Farm operators were informed of the animals that tested positive so they could make decisions for their herd. By catching these animals we are decreasing the spread of prototheca bovis and saving the farm the cost of subclinical mastitis.

- 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.
  - In modern dairy farming, the health and productivity of cows are directly impacted by their living 0 environment. One of the key environmental factors is the guality 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 climatesmart strategies to improve milk production efficiency.
- An on-farm research study to better understand manure application, commercial nitrogen application rates, and nitrogen credits on corn yield and potential effect on ground water. Results from this study will help farmers, agriculture industry professionals, and agency professionals in adjusting manure and commercial nitrogen applications to optimize corn yield and protect groundwater resources. Total Reach: Research is just starting in 2025. Plans are to host field days and workshops throughout 2025 to discuss current research and results from 2024.
  - Manure and commercial nitrogen fertilizers are sources of nitrogen for corn production. Use of nitrogen fertilizers and manure in agriculture production fields is often needed for higher crop yields.



Over application of nitrogen and manure can lead to nitrate nitrogen leaching to groundwater. Groundwater quality is a major concern across Wisconsin counties. Funding through a Nitrogen Optimization Pilot Program On-Farm Research grant led to investigation of the effect of manure and commercial nitrogen application on corn yield on six farms across Wisconsin. Farmers and Regional Educators are collaborating to implement on-farm research to discover yield and water quality effects of various rates of nitrogen to areas of fields with and without applied manure. The purpose of the project is to understand how manure application impacts the Maximum Return to Nitrogen (MRTN) for corn throughout the growing season. The research seeks to validate the recommended manure nutrient credits and MRTN values for corn. Participating farmers and extension educators anticipate there will be an increase in yield for plots with manure and nitrogen applied, but a lower crop response to nitrogen as the amount of nitrogen applied increases. This would allow manure sample data to be utilized to correlate total amounts of nitrogen received for each plot to the harvested yield. Six rates of nitrogen from 0, 40, 80, 120, 160, and 200 pounds per acre are applied with four replications at six farms across Wisconsin. Water quality measurements through lysimeters installed at one location will assist in evaluating the movement of nitrogen through the water profile. Lysimeters installed in April 2024 were removed in April 2025 and are nitrate results are currently being analyzed. This is the second year of a two-year project to be completed in fall of 2025 with results to be released in Spring 2026.

#### **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.
- Collaborating with students from UWSP to create a Food Access Map for Area 7 (Clark, Marathon, Portage, Wood) that includes grocery stores, farmers' markets, farm stands, convenience stores and food pantries. The purpose of this project is to assist community members in understanding all food resources available to them in their communities.

### Horticulture

**Janell Wehr, Horticulture Educator** 

• An in-person presentation for members of the North Central Wisconsin Master Gardener Association, where participants learned about the "No Mow May" initiative and the impacts of lawn care on pollinator



health so participants adopt gardening practices that increase pollinator habitat and reduce the use of horticulture chemicals. Reach: 12

- A therapeutic horticulture activity (Kokedama) for participants of the "Tools to Thrive" program for English as a second language high school students, where participants learned the Japanese growing technique, kokedama, through a hands-on activity. This effort was designed to support the social and emotional wellbeing of the students. Reach: 16
- A demonstration booth at a high school career fair, showcasing career opportunities in agriculture. This effort was designed to inspire local workforce development and retention.
- A workshop for HMoob producers, where participants learned basic IPM principles. This effort is designed to reduce pollution through horticultural product (pesticides and fertilizers) misuse. Reach: 10
- A presentation for Stonecraft Women's Christian Connection, where participants learned about best practices in container gardening maintenance. This effort was designed to support the social and emotional well-being of community members. Reach: Approximately 80
- A series of workshops at a HMoob community garden, where participants learned basic IPM principles. This effort is designed to reduce pollution through horticultural product (pesticides and fertilizers) misuse. Reach: 48
- A workshop for BSA Scouts, where they learned about pollinators, invasive species, and endangered species in conjunction with their environmental science merit badge requirements. This effort was designed to inspire youth in STEM fields. Reach: 13
- A hands on workshop where grieving participants learned container gardening techniques. This effort was designed to support social and emotional wellbeing to local residents. Reach: 6
- 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 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: 30 Cooperating Foresters have joined the project to write Forest Stewardship Plan, 46 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 of 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

- Planning for collaborative activities with three partner organizations: Hmong Autism Neurodiverse Disability Support that serves Brown County and surrounding areas, EXPO-Wisconsin that serves the Fox Valley region, Dane and Milwaukee counties, and Opportunity Development Center that serves Marathon, Wood and Portage counties. The goal is to plan out my role in supporting their Wisconsin Partnership Program activities, so that we can begin to build or strengthen partnerships that enable collaborative efforts to catalyze change, and to increase community's capacity to identify and respond to community-driven health priorities through use of data and evidence-based practice.
  - The Wisconsin Partnership Program offers two levels of community grants to promote academiccommunity partnership in addressing social determinants of health. HANDS, EXPO-Wisconsin and ODC reach out to me to co-develop proposals for applying to the grant. I met 2-3 times with each partner organization respectively, discussed my role and their programs, and workshop the letter of intent together. We submitted three applications that explicitly include extension's contribution to the programs if awarded. With this effort, regardless of whether the WPP grants will be awarded, I hope that I am able to maintain a relationship with these partnership organizations, so that we can



leverage community partnerships to build community capacity in identifying and responding to community-driven health priorities.

- 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 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
- Navigator enrollment assistance provided to anyone in Wisconsin, where 97,013 consumers were assisted with health insurance questions or enrollment. Through this effort, our Navigators completed 4,041 qualified health plan enrollments through the federal Health Insurance Marketplace and assisted 5,615 consumers with Medicaid, resulting in widespread access to health care and improved health outcomes. Total Reach: Statewide: 97,013 consumers helped; 4,041 Marketplace qualified health plan enrollments; 5,615 Medicaid enrollments; 32,283 consumers educated in health insurance literacy
  - Covering Wisconsin Navigators perform education, outreach, and enrollment in response to the continued need from both the public and other professionals for help sorting out the highly complex health insurance landscape in order to access more affordable and timely health care. Finding the more appropriate and affordable coverage is a complicated task for nearly everyone, particularly given that eligibility policies and processes are continuously changing in big and more nuanced ways. Covering Wisconsin serves everyone and is especially attentive to individuals who may encounter the most hurdles. These can correspond with location, language, education, age, extent of experience with the Wisconsin health care and coverage system, along with other factors. Recognizing that these challenges contribute to delayed care and treatment, avoidable medical debt, and poor health outcomes, our Navigators work to meet consumers where they are, providing services in person or remotely, with accurate information, hands-on support, and service that responds to each individual's questions, needs and preferences. Our Navigator team has developed and executed a coordinated outreach and enrollment strategy, coordinating with many partner organizations to better reach consumers in every county of the state. We provide year-round, impartial, no-cost enrollment assistance to consumers through in-person appointments, phone consultations, and virtual platforms, including our online webchat tool which offers an opportunity to live chat with a Navigator during business hours. Our federally certified and state-licensed Navigator team participates in regular trainings to stay current on health coverage policies, ensuring the guidance we provide is timely and accurate. We collaborate with local health departments, libraries, food pantries, community-based organizations, resource networks, houses of worship, other Extension programs, and more to reach individuals who are most likely to need coverage though who are unlikely to be aware of this available service. We also developed multilingual materials and utilized interpreter services to ensure language is never a barrier for the consumers we help. As a



result of this work, we assisted more than 97,000 Wisconsin residents understand, gain, or maintain health coverage. Covering Wisconsin Navigators completed 4,041 qualified health plan enrollments through the federal health insurance Marketplace and assisted 5,616 consumers with Medicaid. These efforts helped reduce the uninsured rate throughout the state and helped individuals access preventive care, chronic condition management, and financial assistance for health insurance and medical expenses. Beyond the numbers, we empower individuals with the tools and knowledge to more capably navigate the healthcare system, which can lead to individual health outcomes and also support the long-term economic and social well-being of families and communities across Wisconsin. We continuously build on these outcomes to provide ever-more efficient means of communication, education, and assistance, leading to gains in the number of Wisconsin residents served.

- 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.

### **Upcoming Programs**

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



#### Extension

UNIVERSITY OF WISCONSIN-MADISON MARATHON COUNTY

# May 2025 Report

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