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### 4-H - Positive Youth Development

Holly Luerssen, 4-H Program Educator

- 4-H Fridays is a partner program with the Children's Imaginarium in Wausau. Two Fridays in June we
  provided programs in their STEM lab. Families attending the museum engaged in three different activities
  each week. Total Reach: Over 75 people attended the June 7th session and 55 people attended the June
  21st session.
  - The Children's Imaginarium invited Marathon County 4-H to host STEM activities in their lab on Friday's during the summer. Two sessions were held in June. On June 7th, we hosted 3 different activities related to extracting DNA from strawberries. Dairy was the theme for the June 21st session where the participants created homemade ice cream, taste tested different types of cheese, and learned about dairy cows. STEM sessions were two hours in length. Besides general STEM educations another focus was for families to engage in activities together and learn alongside each other.
- 4-H Thursdays is an ongoing summer program held at the Wausau Boys & Girls Club. Two STEM related sessions are held every Thursday. The first session engages the elementary youth in a 50 minute lesson. The second session is held in the teen center. Participants will experience a variety of non-traditional 4-H programs each week ending with youth attending the Wisconsin Valley Fair in August for a tour. Total Reach: For June 2024. Elementary 15 youth x 4 weeks = 60 participants Teen Center 12 youth x 4 weeks = 48 participants
  - The Wausau area Boys & Girls club invited the Marathon County 4-H program to provide weekly STEM activities during their summer programming. 4-H programs are held with both the elementary youth and the teen center. Marathon County 4-H is providing hands on STEM programming to the Wausau Area Boys and Girls Club. June's weekly program consisted of extracting DNA from strawberries, engineering towers out of paper, making homemade ice cream, and exploring art by burning tiles and designing with yarn. This program provides the Boys and Girls club with unique programming and guest presenters.
- A series of three virtual orientations for youth delegates attending the Citizenship Washington Focus
  experience in DC in June. Travel details, conference outcomes, and program development were shared
  during the orientations. Additionally, the delegates and adult advisors began to make connections through
  conference prep activities. Total Reach: Each meeting was attended by the 37 youth and 5 adult advisors.
  - As a 4-H Educator, I was the lead advisor for the Wisconsin delegation to Citizenship Washington Focus. I arranged for a series of 3 virtual orientations to bring the team of youth delegates and adult advisors together to understand the trip details and begin to build relationships. The three virtual



orientations were created to meet the needs of youth travelers. Orientation topics: Week 1: Adult Advisor, Travel, and Conference Introductions Week 2: Review Travel; Dig deeper in Lead the Change Program at CWF; Week 3: Final Q&A; Review Senate briefings, creating appropriate questions; Review travel updates As the lead advisor, I created meeting agendas, PowerPoint slide decks, and led the meetings.

- A residential summer camp program for youth in grades 3-7 where youth spent 3 days and 2 nights immersed in a camp experience. Through summer camp, youth developed independence and strengthened interpersonal skills while exploring sparks. Total Reach: 78 youth campers 18 youth counselors 16 adult volunteers (including AmeriCorps members)
  - Camp allows young people to disconnect from daily reality and technology to focus on friendships, self-discovery, and exploration. Campers build independence, learn new skills, and possibly discover new sparks. Multi-county camps allow youth to build connections with youth from different places with similar interests. Before and during camp, educators build structures and develop training to ensure that all campers are able to start building new connections right away. For some campers, these activities are teaching them how to make friends or how to start a conversation with a peer they've never met. The evaluation data are not yet compiled.
- A virtual orientation meeting for youth campers and their families where participants were introduced to camp staff, learned about the camp facilities, and asked questions about any concerns they had. As a result, campers and their families were less anxious because they knew what to expect and who they would be working with. Total Reach: 20 families (Laura Huber, Holly Luerssen, Melissa Yates)
  - Youth mental health concerns have been growing in recent years. Those concerns often lead to families opting out of camp programs. The overall camp experience can be beneficial to youth with mental health concerns. Youth learned that their concerns were normal and that others shared their concerns. We offered this optional orientation Zoom to help acquaint youth and their families with camp. This effort encouraged families to be a part of the preparation process. Overall, these efforts were meant to help reduce pre-camp anxieties and increase the success of each individual camper. Families who attended the Zoom were able to get answers to their questions immediately. Many questions dealt with health concerns (like how food allergies would be addressed and how youth would receive their medications) or rooming assignments. Youth who attended the Zoom were comfortable approaching the staff they met on the Zoom right away since those were recognizable faces.
- The LinMarWood staff development training for the 4-H summer camp where youth and adult leaders learned gained a deeper understanding of their role and how to support campers at the upcoming 4-H Summer Camp. Total Reach: 17 4-H Youth 6 Adults 3 4-H Educators
  - 4-H Educators created a dynamic training agenda where counselors and adults engaged in meaningful pieces which allowed the staff to better understand behavior traits, how to support campers and create programs. 4-H Educators created a dynamic training agenda where counselors and adults engaged in meaningful pieces which allowed the staff to better understand behavior traits, how to support campers and create programs. The Camp Staff will be ready to recognize and acknowledge positive behavior traits, be ready to lead camp songs & skits, and role played correcting behaviors.



## **Agriculture**

**Heather Schlesser, Dairy Agent** 

- A webinar, one session part of Badger Dairy Insight, for dairy farmers and dairy industry professionals, where participants learned about updates to the MILK 2024 spreadsheet and about feeding lactating dairy cows alternative forages. Total Reach: 100 people registered for the webinar.
  - Badger Dairy Insight is a monthly webinar offered to dairy farmers and dairy industry professionals around topics related to reproduction, nutrition, emerging technologies, and animal welfare to increase their knowledge around the latest University research. Then nutrition workgroup provided speakers to talk about the MILK 2024 spreadsheet which helps producers and nutritionists think about how well corn silage is being fed. We also provided a speaker to talk about a SARE grant on alternative forages. Attendees and those watching the recording of the presentations will have knowledge on feeding corn silage and alternative forages.
- Planning for an update to Topic Hub article heat abatement resources in dairy cattle, as well as, creating
  new informative videos to showcase dairy farmer success stories about heat abatement strategies on-farm.
  The goal is to increase awareness and highlight successful implementation of heat abatement strategies for
  dairy cattle. These resources will address a critical topic related to climate change and sustainability, as well
  as methods to ensure high quality animal care and economic viability for the dairy industry.
  - O Heat stress presents both an animal welfare and sustainability challenge for the dairy industry. Dairy cattle of all ages are susceptible to thermal discomfort and may experience poor animal welfare as a result (Van Os et al., 2024). In lactating cows, milk production and reproductive losses have been documented to occur during heat stress, which, along with a greater risk for mortality, threatens the economic viability, efficiency, and environmental sustainability of dairy production. Some limited evidence also suggests heat stress and mitigation strategies impact public perception of dairy farming (Cardoso et al., 2018). Many Wisconsin dairy farmers have expressed interest in learning more about cost-effective and energy-efficient housing and management practices to mitigate heat stress in dairy cattle. Previous heat abatement resources on the Topic Hub will be updated and new resources will be added to address economic impact. In addition, brief, informative videos to highlight various types of successful heat abatement strategies implemented by dairy producers onfarm will be created. Our goal is to serve as a reliable source for research-based information on effective and efficient heat abatement strategies in continental or temperate climates, across dairy herd sizes and facility types. Dairy producers and the industry will increase awareness of heat abatement strategies and important sustainability, economic, and animal care implications.
- Planning for Planning Emergency Livestock Transportation Response (PELTR) hybrid workshops for and in
  collaboration with area and statewide emergency response personnel. The goal of PELTR is to maintain an
  effective emergency response that protects producer/livestock owners' and Wisconsin's agricultural
  economic viability. Total Reach: Workshops require pre-registration and are limited to 20 participants per
  location. Two locations are being planned for 40 emergency responders total.
  - Livestock transportation is a critical segment of the food supply system and Wisconsin's agricultural industry. It is also a highly visible segment to the public with animals being transported to and from farms, points of sale, and to processing facilities. Safety on roadways is in everyone's best interest



and part of that safety is preparedness for responding to emergencies on the roadway. First responders are the front line in that response and many lack experience with livestock handling. First responders, and livestock owners and associations, asked us to provide this training. UW- Madison Extension Livestock and Dairy Program colleagues created the research-based curriculum titled Planning for Emergency Livestock Transport Response (PELTR). The curriculum consists of five modules delivered virtually and in person through lectures, interactive discussions, videos, and demonstrations. Short-term outcome: increase emergency responders' preparedness to respond to roadside incidents involving transported livestock. Medium-term: responders share what they learned as they develop their local response plans. Long-term: Wisconsin's emergency responders have plans in place to respond to roadside incidents involving transported livestock.

#### **FoodWIse**

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

- A quarterly nutrition education series in Marathon County for adults with young children as part of the Children's Wisconsin LEAP (Learning Essentials about Parenting) program where they learn about incorporating healthy eating habits into the family routine, including family meals and eating more fruits and vegetables. The goal of this effort is to encourage healthy eating behaviors at home.
- Provided vegetable samples and recipes using MyPlate resources at the Marathon County Hunger Coalition Mobile Food Pantry at the Wausau branch of the Marathon County Public Library.
- 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.
  - o 9% of Marathon County residents use SNAP benefits to purchase food, and many more would benefit from increased access to fresh fruits and vegetables. FoodWlse provides leadership to the MCHC, which gleans at the Wausau Farmers Market, purchases and procures local produce for food pantries, and operates a monthly mobile pantry that travels throughout the county. The MCHC purchases thousands of dollars of produce and local food from farmers in the community to be distributed through food pantries. This program supports the local economy by keeping money in the community and provides healthy food to those that need it most.





#### **Horticulture**

**Janell Wehr, Horticulture Educator** 

- "Let's learn about Wisconsin Bees", a program in partnership with the Wood County Master Gardeners and the E.R. Marshfield Public Library for Marshfield area families, where participants learn about native bees and how to support them. This effort was designed to increase pollinator habitat while decreasing pesticide misuse.
- "Planting for Pollinators", a program where participants learned how to select plants to support pollinator habitats and how to reduce pesticide use.
  - This program was hosted twice at the MCPL-Wausau branch, MCPL-Marathon City, and the Woodson YMCA-The Landing in an effort to capitalize on National Pollinator Week and increase awareness on pollinator decline. In total over four programs, 26 participants reported they learned about best management practices in selecting pollinator supporting plants and reducing pesticide use.
- 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.
- "Can you dig it?" newsletter for the general public, where subscribers can read timely articles specifically related to horticulture issues facing central Wisconsin. The goal of this effort is designed to increase awareness and knowledge of resources to decrease environmental contamination. Total Reach: February: 533 open, 87 click throughs March: 659 open, 92 click throughs April: 815 open, 119 click throughs May: 700 open, 82 click throughs.

#### 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: 28
  Cooperating Foresters have joined the project to write Forest Stewardship Plan, 40 Woodland Owners have
  been connected with Forester to get a plan, 1 Forest Stewardship Plan completed
  - 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. 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 culmination of this effort will increase forest health across the state.

- A field day for foresters, where they learned about various agroforestry practices being explored in Wisconsin that involve trees. The intention of the training was to expose foresters to alternative management options so that they can serve more landowners by offering additional services for sustainable management. Total Reach: 49 attendees
  - o Farmers and woodland owners tend to be served by distinct sectors of professionals, work with different supply chains and industries, and have different social networks (Mayerfeld 2020). Yet farmers with woodlands and trees are critical for expanding multifunctional agriculture and its benefits for secure livelihoods, carbon storage, wildlife habitat, water quality, and outdoor recreation. This project wants to connect foresters with farmers for sustainable management of tree resources.

# Additional Extension Outreach Programming Occurring in Marathon County

- A workshop for farmers where producers learned effective management strategies to respond to excessive and persistent rain, that has prevented normal planting and development of crops. Farmers learned about alternative forages, providing adequate feed for livestock, crop insurance rules, resilience to climate change and conservation practices to protect soil and water. This program was developed in response to a problem that developed suddenly and required an immediate local response.
  - Parts of Wood and Portage County are very sensitive to excess moisture during spring planting time, due to poorly drained soils. This spring has provided very few windows for farmers to plant crops needed to feed their herds, or to market as feed. In addition to not getting crops planted, forage



quality has suffered greatly due to delayed harvest of hay crops and winter annuals. Fields have been damaged as farmers have attempted field operations in too wet of conditions. Some forages have been lost as harvest activities began but then continuing rain wouldn't allow the crop to be harvested. Crops that were planted have suffered poor germination and slow development. These losses that have already occurred have severe implications for producers going ahead over the next two years as feed that was expected to be produced never developed. Extension educators offered research based alternative crops that can yet be planted in abandoned fields. They offered best practices to manage the crops. A crop insurance representative spoke to the producers about what alternatives are allowed, including recognizing specific dates to be observed to both utilize these fields and to remain compliant for important crop insurance opportunities. Cover crops and other practices were reviewed on how to respond to this, and future climate related challenges producers may face.

- Field observations of the developing alfalfa crop were monitored twice weekly over a month's period of time and shared with local media and on the state alfalfa quality website, to provide information to producers about the quality of the developing alfalfa crop so that they make better harvest, crop and feed management decisions. Total Reach: Listenership on one of the radio agriculture programs where the results were broadcast is over 23,000 people during the time period of the broadcast.
  - o Alfalfa increases in quantity but declines in quality as it matures. Quality can be reliably estimated using the PEAQ -Predictive Equations for Alfalfa Quality system. Observations of average plant height and vegetative/reproductive maturity are taken to translate into a predicted Relative Feed Value- RFV. For greater accuracy, scissors cuttings can be used to submit alfalfa samples for laboratory analysis to compare the two estimates of quality. It is very important for dairy producers to harvest at the correct time to get good quantity and excellent quality to economically produce milk. Producers rely on reports of the PEAQ analysis by contacting our website, or by local radio to learn how the alfalfa crop is developing in their area. As a dairy educator very interested in forage quality, I continued the tradition of collecting and reporting results to the local media during the absence of a crops educator during this time. 2023 was an unfortunate year in that many producers, due to weather were unable to harvest at the correct time window as indicated by the PEAQ method. Working with Scott Newell, Wisconsin Extension Alfalfa Specialist, and other educators' efforts are being made on how to be timelier, and to provide broader access to this information. Also how to provide more detail and context than what the current methods have provided.
- A selection application was developed so that scholarships could be provided to area high school seniors so that opportunities for further education are enhanced in the agricultural field.
  - Area high school students are often unaware of the opportunities available for them to develop solid careers with agriculture related business. Working with MACCI, several opportunities to increase this awareness have occurred. One is a career fair, involving about twenty local agricultural employers. Scholarship programs have been identified as a way to make further education within the reach for those interested in agricultural careers. Working with the Marshfield Area Chamber of Commerce and Industry, Agri-Business Committee, a scholarship program provided an opportunity for area students interested in agriculture to increase their ability for further education. Thirteen students applied and 8 were awarded a total of \$5,600 upon successful completion of the first



- semester of college. The students also participated in activities providing greater awareness of agriculture education in their respective communities.
- A study to better understand water quality concerns for foreign-born farm workers. Results will inform
  participants of water safety concerns and provide education for remedying water quality concerns. Total
  Reach: 119 farms were contacted for participation. Testing is still being conducted.
  - Wisconsin is one of the top agriculture economies in the United States, especially in dairy production, which is heavily reliant on farm labor. Many Wisconsin dairy farms rely on foreign-born workers, mainly from Mexico and Central America to make up the farm workforce with Marathon and Clark Counties having some of the highest number of farm workers in the State of Wisconsin. Nearly half of Wisconsin farms provide housing to workers as an employee benefit. Drinking water sources near agricultural activity are susceptible to contamination from animal waste and farm chemicals, and these contaminants can pose health hazards to humans and livestock. Housing provided to farm workers can range from older housing stock to grouped housing, such as several mobile homes on a property. Because these are not typical real estate transactions, the required well testing that is often required by a lender was most likely overlooked. This project seeks to incentivize well water testing for farmers that provide housing for workers by providing homeowner water testing packages at no cost that test for bacteria, nitrates, and water quality. The goal of this program is to incentivize water testing for farms to ensure drinking water is safe for human consumption. This project proposes to test drinking water in up to 140 wells that provide drinking water for farm workers across six counties (Buffalo, Clark, Jackson, Marathon, Pepin, and Trempealeau) in Central and Western Wisconsin. In partnership with county health departments land conservation/planning and zoning departments, we will conduct targeted mailings to farms that provide housing for workers and/or meet other criteria for water quality concerns such as topography, water quality concerns from previous testing, etc. Targeted farms will be provided the option to test all wells that provide drinking water for humans, and they have the option to take the samples themselves to a nearby partnering lab (this varies by county/location), or have the samples taken for them by project partners. They will be asked for the unique well identification number of each well tested, and then have the option to provide additional information about how many households the well services, demographical information, etc. The farmer/landowner will be provided with a lab report for each well tested as well as educational information about their water quality. If the water has any health concerns such as high nitrate levels, bacteria, or concerning water quality indicators, follow up information will be provided about those health concerns and possible remedies. Both water testing Information and health information education (when applicable) will be available in English/Spanish (and other languages as requested).

## **Upcoming Programs**

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



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