



Extension

UNIVERSITY OF WISCONSIN-MADISON
WOOD COUNTY



ANNUAL REPORT 2024



Table of Contents

Extension	4
Agriculture	5
Community Development	7
Cranberries	9
Health & Well-Being	11
Horticulture	15
Human Development & Relationships	17
Natural Resources	19
Wisconsin 4-H	23

University of Wisconsin–Madison Extension Wood County

400 Market Street | Wisconsin Rapids, WI 54494
715-421-8440 | extension.wisc.edu | info@extension.wisc.edu



Extension

UNIVERSITY OF WISCONSIN-MADISON

UW-Madison Extension's outreach creates key connection points for families, farms, communities, businesses, nonprofit organizations, government, and more. We support local volunteers and leaders to take action and serve as role models in their communities, and we make sure Wisconsinites have the latest research, best practices, and educational opportunities.



Learn more at
extension.wisc.edu





Agriculture

Matt Lippert, Agriculture Educator

ROBOTIC MILKING

Interest in quality-of-life improvement, labor savings, and animal well-being has continued to heighten interest by dairy producers in automated milking systems, commonly referred to as robotics. In addition to robots milking cows, robots have been utilized to deliver TMR to cows, ration assembly, feed push up, pen cleaning and calf feeding. Extension offered a well-attended open house with around 200 people attending. At this dairy, composted bedding is delivered by robot, calves are fed by robot, feed is pushed up and cows are milked with seven milking stations. Nesli Akdendiz, a UW-Madison Agricultural Engineer, presented information on special ventilation considerations for robotic barns. Other robotic efforts during the year included beginning a robotic dairy user's peer group and a survey of practices that characterize high producing robotic milked herds.



The Dukelow family hosted the robotic field day.

SMALL RUMINANTS

A goat field day was held near Lindsey to provide Extension resources to rapidly growing dairy goat interest in the area. Many small, family goat producers are new to managing goats and are hungry for information on feeding, vaccination programs and ventilation. Meat goat production was also discussed at this field day as many of the topics are important for both dairy and meat goat production.



Dairy goats have been increasingly utilized by the Amish community.



Dairy goats utilizing high quality forage.



Agriculture

GRAZING

In continuation of a successful series of fall grazing pasture walks, local Extension Educators organized a pasture walk on the farm of a very successful organic dairy producer belonging to the plain faith community.

Working with an organic milk cooperative, and a vendor and provider of organic farm supplies, and ultimately with the farmer host, topics of interest, addressing the current needs of organic dairy producers were identified. These topics included establishment of perennial pasture mixtures, breeding considerations specific to grazing for dairy mating programs, maintaining high yield, crop rotation and high forage quality with maximum use of crop cover to minimize erosion and to maintain soil health; raising of dairy replacements on pasture systems; and testing of soil and interpreting soil reports to economically improve pasture yield. Maintenance of cattle lanes for cows, dry cows and replacement heifers was also highlighted.



Organic dairy producers network at the fall pasture walk.



Family and community contribute to great stewardship of our county's resources.

Promotion of the event among the plain faith organic dairy farm community and with Land Conservation Departments and other groups resulted in a successful day with dynamic and interactive discussion.

Hands-on interactive discussion with other farmers with similar production practices is highly valued in this community.

Practices such as improved cattle lanes and efficient fencing systems were reviewed on the pasture walk.

Media including the Clark County Extension Views, Wisconsin Agriculturist, Wisconsin State Farmer, Extension Agriculture SharePoint sites and Extension Badger Dairy Insight zoom programs, included much information on dairy cattle genetic evaluation, dairy transition cow management, feeding alternative forage and management of alfalfa and corn silage reached many audiences.

Meeting with the Central Wisconsin Forage Council, Matt Lippert shared insights about updates to corn silage forage testing. The group included farmers and consultants managing many acres of forage crops. Lippert also collected alfalfa scissors cutting during the very prolonged, wet spring haylage harvest documenting the challenges of farmers to produce quality forage in 2024.



Community Development

Kayla Rombalski, Community Development Educator

ECONOMIC DEVELOPMENT UPDATES

Wood County's Community Economic Development initiatives in 2024 reflected substantial progress, building upon the foundation established by the creation of REDI (Rural Economic Development Initiative) implementation teams. These teams, tasked with addressing critical areas including broadband, child care, entrepreneurship, and housing, successfully executed numerous impactful projects.

- **Housing Summit:** More than 100 people gathered on March 7, 2024, for Wood County's first Housing Summit held at Mid-State Technical College in Wisconsin Rapids. The Summit, planned by members of the Wood County Housing Task Force, was a direct response to the calls for action and conversation surrounding affordable and accessible housing throughout the County and Central Wisconsin. The day featured a packed agenda with best practices from other communities, a legislative panel, and an action planning session to generate key takeaways.



Attendees at the Housing Summit included local legislative representatives.

- **Housing Study:** The Wood County Housing Task Force in collaboration with Sam Wessel, Senior Planner at North Central Wisconsin Regional Planning Commission, completed the housing element of the Wood County Comprehensive plan. Preparation of this plan included a housing survey taken by 300+ Wood County residents. The plan provides recommendations to municipalities and government leaders on housing strategies.



Homegrown attendees listen to an Extension state specialist present on entrepreneurship opportunities in Wood County.

- **"Homegrown":** On April 29-30, 2024, Extension held an entrepreneurial workshop, Homegrown, which focused on building and sustaining a thriving "entrepreneurial ecosystem" in Wood County and Central Wisconsin. The training brought in state specialists from Extension and offered opportunities for local partners to collaborate and plan for the future of entrepreneurship in our community.

- **Wisconsin Rapids Selected as CEC 2025 Host City:** In 2024, Wisconsin Rapids applied for and was selected from a number of other cities as the 2025 host of the Connecting Entrepreneurial Communities Conference. This conference features programming about entrepreneurship in smaller communities, featuring local leaders, local businesses and local cultures of a Wisconsin town. Hosting in Wisconsin Rapids allows us to showcase the community's vibrancy and transformation.



Community Development

- **Strategic Doing Practitioner Training:** Kayla Rombalski took part in Strategic Doing Practitioner training from the Agile Strategy Lab at the University of North Alabama. Strategic Doing is a peer-reviewed, scientifically grounded practice that teaches the discipline of collaboration and strategy in open networks. Following the training, Kayla collaborated with other regional partners to plan a Strategic Doing Workshop focused on Entrepreneurial Ecosystem and Placemaking, held on Monday, October 7 at Mid-State Technical College.
- **Child Care Investment:** In 2024, \$500,000 of Wood County ARPA (American Rescue Plan Act) funds were awarded to Childcaring, Inc. on behalf of the Wood County Child Care Task Force. The careful consideration of this request to support child care by the Board of Supervisors is a tremendous commitment to children and families in Wood County. Designated funds will be used to support:
 1. start-up and/or capacity building grants
 2. development of a local shared services network
- **Thrive Rural:** Wood County was awarded a Thrive Rural Wisconsin grant through Wisconsin Economic Development Corporation's Office of Rural Prosperity. This funding allowed Pittsville community partners to move forward with a project identified through a previous Extension Community Economic Analysis: the creation of a community-supported non-profit organization and community center in the City of Pittsville. Dubbed CranCity Corner, this exciting project will be an asset to the Pittsville community.
- **Clean Sweep:** New in 2024 Wood County hosted two Clean Sweep collection events in one year. The first was on Saturday, May 25, at the Marshfield Agricultural Research Station in Marshfield. A second collection was held on Saturday, September 7, at the Saratoga Town Hall and Garage in Wisconsin Rapids. Combined these collections took in more than 6,000 pounds of waste from 123 residents. This amounted to approximately 50 pounds of waste per resident! By doubling our collection sites, we were able to better serve residents and farmers throughout our County. The bulk of our residents came from the cities of Wisconsin Rapids and Marshfield, representing 52% and 33% of the total residents respectively.



Community Development Educator, Kayla Rombalski, being interviewed via Zoom regarding \$500,000 of ARPA funds to support child care.



A Wisconsin Rapids resident shared their positive feedback about Clean Sweep on social media.



Cranberries

Allison Jonjak, Cranberry Outreach Specialist

EDUCATION

Cranberry Extension Education in 2024 provided growers with access to cutting edge research in person, online, in print, in video and on marsh visits. Outreach methods for all learning styles were paired with content requested by the Education Committee comprised of Wisconsin growers and provided by UW-Madison researchers.



Attendees at Cranberry School during an application discussion panel.

Research and new best management practices included topics such as frost protection and dew point, symptom expression of fruit rot, early season hail, phosphorous solubilizing bacteria, introduction of a new herbicide, soil and tissue sampling, best management practices for vine cuttings, nutrient & water uptake into berries, wet conditions and disease prevention, and sanding logistics with poor ice conditions.

Key topics for the year in the Farm Management arena included new hire onboarding, worker safety, pesticide applicator training and land stewardship.



Cranberry School presenter.

CRANBERRY EDUCATION BY THE NUMBERS

7

virtual brown bag lunches

41

average number of attendees per lunch

8

Cranberry Crop Management Journal issues

521

recipients of the CCMJ

325

attendees at Cranberry School

850

attendees at the Summer Field Day

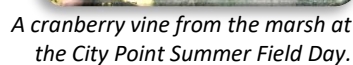


Cranberry Outreach Specialist Allison Jonjak transitioned from a 50-50 outreach and research role, to a pure education and outreach role beginning in May 2024, as UW Madison researchers revamped their chemistry screening program to include more lab staff.

To support this shift, Allison conducted a thorough Needs Assessment, making 72 marsh visit interviews through the summer and fall seasons. The Needs Assessment revealed three key needs for future cranberry programming:

1. A revised Nutrient Management Practices guide that supports growers in raising today's modern hybrids and in establishing new plantings;
2. A foundational, easily searchable, online library of educational materials to support younger generations returning to the farm and educating new hires without cranberry backgrounds to improve their work experiences; and
3. Continuing to strengthen the tight feedback loop between grower needs and research priorities. Popular grower request also supports the conversion of archived Virtual Brown Bag recordings into an on-demand format, and these videos are being processed and uploaded for ease of access as well.

We are proud of 2024's successful crop—Wisconsin's 20th consecutive year leading the world in cranberry production—and of the cooperative and research-driven cranberry industry and all of its successes.

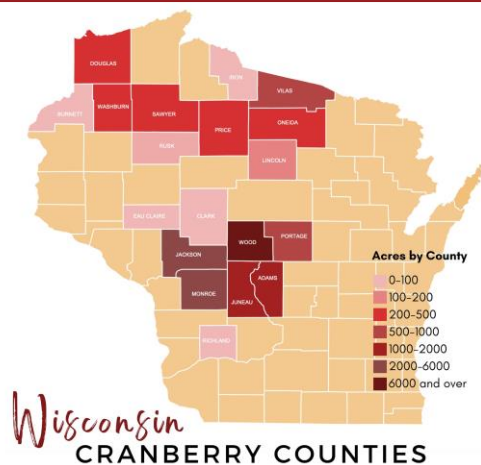


Needs Assessment

72 marsh visit interviews

33 percent of marshes that conduct their own IPM scouting

67 percent of marshes that hire an IPM scout



Harvesting an average of 20,000 acres across 19 counties each year, Wisconsin's 250 cranberry growers maintain more acreage of cranberry crop than any other state in the country. Wisconsin cranberry growers annually lead the globe in cranberry production, produce close to 60% of the nation's supply, and outgrow the next largest growing region by more than 1 million barrels.

A native perennial plant to the state, the sand and peat marshes in central and northern Wisconsin create the perfect growing conditions for cranberries.



Information courtesy of Wisconsin Cranberry Board
Learn more about Wisconsin's state fruit at Wiscran.org/experience



Health & Well-Being



HEALTHY CHOICES, HEALTHY LIVES

FoodWise in Wood County is federally funded by the Supplemental Nutrition Assistance Program-Education (SNAP-Ed). With local strengths, we support healthy eating habits, active lifestyles and healthy community environments for Wisconsin residents experiencing limited incomes through nutrition education at the individual, community and systems levels.

UW-Madison Division of Extension works alongside the people of Wisconsin throughout urban and rural communities to deliver practical educational programs where people live and work. In Wood County, FoodWise partners with schools, after-school programs, Head Start programs, senior meal programs, and food pantries to help make the healthy choice the easy choice in our communities.

COMMUNITY IMPACTS IN 2024

- Engaged with **525 learners** around nutrition education topics in a variety of settings, including early care and education centers, K-12 school settings and food pantries.



Hannah Wendels Scott in a school for a nutrition lesson.

- Partnered with **4 schools** in the Wisconsin Rapids School District to support the Harvest of the Month campaign, reaching students, parents & caregivers with messages in English & Spanish to promote eating Wisconsin-grown fruits & vegetables.
- Worked with **Healthy People Wood County** to hold deliberative inquiry dialogues with community members to inform Wood County Health Improvement Plan (CHIP).

WOOD COUNTY LANDSCAPE

Whether people are healthy or not is affected by systems, policies and environmental factors.

45%

of children in schools were eligible for free or reduced price meals.[^]



Photo Credit: Sarah Kloepping/Green Bay Press-Gazette

14%

of county residents use SNAP benefits to purchase food for themselves and their families.*



[^] WI Dept. of Public Instruction

* WI Dept. of Administration and WI Dept. of Health Services

FoodWise education is funded by the USDA Supplemental Nutrition Assistance Program – SNAP and Expanded Food and Nutrition Education Program – EFNEP.



Health & Well-Being



INSPIRING COLLABORATIONS

The FoodWise team has grown the StrongBodies program in Wood County, starting initially at the South Wood County YMCA, then moving to the Nekoosa Area Community Center, where participation grew significantly. Nutrition Educator, Hannah Wendels Scott, taught the strength-training program with a nutrition component to a class of 30 participants, and worked throughout 2024 to develop a sustainability plan. Recognizing the need for accessible physical activity, Human Development & Relationships Educator, Jackie Carattini, found interested individuals to be trained as StrongBodies Volunteer Leaders. As a result of their efforts, the first volunteer-led class began in October 2024.



StrongBodies offers numerous benefits, including reduced risk for chronic diseases, and increased strength, muscle mass, and bone density. Participants also value the social opportunities and new friendships formed. Thanks to the collaborative efforts of Extension colleagues, StrongBodies will continue offering accessible health benefits and social connectedness into the future in Wood County!

"I have lost 10lbs and feel much better. Helped a lot to get out during winter."

-Strong Bodies Participant

MULTI-LEVEL PROGRAM EFFORTS

FoodWise Nutrition Educator, Hannah Wendels Scott, provides educational programming at River Cities High School and works to promote healthy eating habits among students by meeting them where they are. Students learn about resource management, food safety, and healthy cooking.

To continue the conversation about food with River Cities students, Hannah and Healthy Communities Coordinator, Michelle Van Krey, collaborated with the Department of Public Instruction (DPI) to conduct a focus group. This conversation provided valuable insights into what makes students interested in school meals.



Hannah Wendels Scott teaching a lesson at River Cities High School.

Building on these insights, FoodWise is supporting River Cities as it participates in DPI's "Upgrade School Meal Appeal" initiative, where schools are awarded grants to implement strategies aimed at increasing meal utilization and ensuring students have access to nutritious and appealing meals.

CONNECT WITH US



Mallory McGivern

FoodWise Program Administrator



Michelle Van Krey

Healthy Communities Coordinator



Hannah Wendels Scott

Nutrition Educator



Health & Well-Being

Ka Zoua Thao, Bilingual Community Health Worker

THE SUCCESS OF HMONG STRONGBODIES IN WOOD COUNTY

The StrongBodies program has had a significant impact on the Hmong community in Wood County. This community-based physical activity program is designed to help individuals of all ages build strength, flexibility, and balance. StrongBodies has helped the Hmong community in many ways.



StrongBodies participants doing strength training exercises.

- **Improved Physical Health:** StrongBodies participants have gained strength, balance, and fitness, which is especially valuable for Hmong elders with fewer chances to stay active.
- **Enhanced Social Connections:** The program creates a welcoming space where participants form and maintain social bonds. For the Hmong community, this helps combat isolation and strengthens their sense of belonging.
- **Culturally Sensitive Approach:** The program is designed to be culturally sensitive and responsive to the needs of the Hmong community. Hmong instructors help ensure that participants feel comfortable and understood.
- **Increased Confidence and Independence:** Joining StrongBodies helps Hmong elders feel more confident in their physical abilities, making them more independent in daily life. This boosts their overall well-being and quality of life.



A group of StrongBodies participants doing strength exercises.

The first Hmong Strong Bodies class had **28 registered participants** with **13 individuals** attending regularly.

Overall, the StrongBodies program has made a positive impact on the Hmong community in Wood County by improving physical health, enhancing social connections, and fostering a supportive and culturally sensitive environment. A partnership with the Hmong American Center and the Boys & Girls Club of Wisconsin Rapids made the StrongBodies program possible.

***"I am able to do things that I haven't been able to do in a while.
I feel stronger after attending."***

-Strong Bodies Participant



Health & Well-Being

Ka Zoua Thao, Bilingual Community Health Worker

STRENGTH IN UNITY: THE BENEFITS OF HMONG SUPPORT GROUPS IN WOOD COUNTY

Support groups in Wood County have made a big difference in the lives of Hmong youth and adults, improving various aspects of their well-being.

- **Improved Mental Health:** Support groups provide a safe space for Hmong individuals to share their experiences and challenges. This helps reduce feelings of isolation and promotes mental well-being.
- **Enhanced Social Connections:** These groups foster a sense of community and belonging, helping members build strong social networks.
- **Cultural Preservation:** Our youth support groups often incorporate cultural practices and traditions, helping to preserve and promote Hmong heritage. This strengthens cultural identity and pride among Hmong youth.
- **Access to Resources:** Support groups connect Hmong individuals with essential resources, such as healthcare, education, and legal assistance. This improves their overall quality of life and helps them navigate various systems more effectively.
- **Empowerment and Advocacy:** By participating in support groups, Hmong individuals gain confidence and become more empowered to advocate for their rights and needs. This leads to greater community engagement and positive social change.



Students in the Support Group at Lincoln High School complete an activity.

Support groups strengthen the Hmong community in Wood County by offering mutual support, preserving culture, and providing essential resources, leading to a more connected and resilient community.

HMONG SUPPORT GROUP PARTICIPATION

35

youth from Lincoln High School and Wisconsin Rapids Area Middle School (WRAMS)

29

Hmong youth from WRAMS taught 6th graders about the Hmong New Year, culture, and language

6

adults for Womens' Social Space

13

elders for Viv Ncaus Support Group



Attendees of the Womens' Social Space support group participate in a game.



Horticulture

Janell Wehr, Horticulture Educator

ADDRESSING THE ENVIRONMENTAL IMPACTS OF PESTICIDE AND FERTILIZER MISUSE

Diagnostics

Wood County is experiencing environmental challenges, including pollinator decline and pollution caused by the overuse of horticultural chemicals. Implementing proper pest management techniques can reduce the need for fertilizers and pesticides, lowering the risk of environmental contamination.

In 2024, the Extension office answered at least 257 diagnostic questions in Marathon and Wood Counties—**an increase of 60% from the previous year**. Wood County residents increasingly rely on their local Extension office for timely, research-based solutions to horticulture-related issues. Questions come in through phone calls, direct emails to Janell Wehr and the UW-Madison Horticulture Program website. Additionally, the Wood County Master Gardeners assist with inquiries via email and at community events.

A review of this year's inquiries revealed key trends:

- 22% of questions were related to plant diseases, likely influenced by the extremely rainy conditions from April to June.
- 13% of inquiries focused on tree health, with many cases involving anthracnose on maples in early summer and septoria on lilacs in the fall.
- 20% of questions addressed insect concerns, including management strategies for emerald ash borer (EAB).

Given the increasing frequency of extreme weather events, we can expect the volume of diagnostic inquiries to continue rising in the coming years. Unpredictable conditions, such as excessive rainfall, drought, and fluctuating temperatures, will likely contribute to more plant health concerns and pest issues, reinforcing the need for accessible, research-based guidance.

'HORT' BY THE NUMBERS

257

diagnostic inquiries

2

outreach events

6

media engagements

10

programs

1

12-week course



Horticulture

Digging Deeper in IPM Based Gardening

Sowing Success is a **12-week introductory horticulture course** that teaches the fundamentals of Integrated Pest Management (IPM). Participants learn how to connect gardening practices with plant biology to prevent and manage common plant problems. Students explore practical IPM strategies to address pests, including insects, diseases, weeds, and wildlife. By the end of the course, participants gain both hands-on gardening skills and an understanding of why these techniques work—helping them prevent plant issues before they start and effectively manage them when they arise.



Sowing Success class participants.

In fall 2024, four students completed the Sowing Success program. Wood County Master Gardeners played a key role in mentoring participants throughout the course, offering guidance and support.

Sowing Success is an approved educational opportunity for the Wisconsin Extension Master Gardener Program, helping prepare students for their future roles as Wisconsin Extension Master Gardeners.

GARDENING TO SUPPORT COMMUNITY WELL-BEING

Engaging Older Adults: Programs to Combat Isolation and Promote Well-Being

Lifelong learning plays a crucial role in supporting Wood County's aging population by enhancing cognitive function, fostering a sense of accomplishment, promoting personal growth, and encouraging social engagement. Social isolation—characterized by a lack of social connections—negatively impacts both individual and community well-being. Strong social ties are linked to better mental and physical health, while isolation increases the risks of depression, anxiety, and poor overall health.

To combat social isolation and improve well-being, Extension collaborated with local agencies, organizations, and universities to offer educational programs specifically designed for adults 55 and older in Wood County. Through these programs, Extension offers meaningful learning opportunities that support individual well-being and strengthen community connections.

Cultivating Curiosity in Youth through STEAM



Horticulture Educator, Janell Wehr, with Inspector Cabbage.

In 2024, Extension offered several hands-on programs to spark curiosity and awareness in youth about science, technology, engineering, arts, and math (STEAM). At Science by the River in Wisconsin Rapids, families explored pH indicators to ignite STEM interest. In Marshfield, children learned how planting trees can help mitigate climate change, while families participated in a program about supporting native bees and enhancing pollinator habitats. These efforts aimed to foster environmental awareness and encourage sustainable practices among the next generation.



Human Development & Relationships

Jackie Carattini, Human Development & Relationships Educator

IN MEMORY

Our office suffered a huge loss in October of 2024 with the sudden passing of Human Development & Relationships Educator, Jackie Carattini.

As our HDR Educator here in Wood County, Jackie's knowledge, enthusiasm, and professionalism were nothing short of the best. Her reach as a valued colleague in Extension went well beyond the county, as evidenced by her frequent collaborations with professionals at both the state and national levels. As a friend and coworker, her bubbly personality, contagious laughter, and genuine compassion endeared her to all of us. Jackie's role in Extension will truly be a hard one to replace.

The work outlined below is our best effort to capture Jackie's programming successes in 2024.



Jackie Carattini

PLANNING AHEAD

Studies have shown that older adults are more likely to experience social isolation and loneliness, as they often experience losses of family, friends, or spouses; live alone; or have chronic health issues that isolate them in their homes. Immigrants, LGBTQ+ people, minorities, victims of elder abuse, and adults living with disabilities have an even greater risk of developing social isolation and loneliness.

Extension Wood County creates spaces for and facilitates connections between older adults through programs like: the Wise Wisconsin series, Aging Mastery Program, Planning AHEAD, and Who Gets Grandma's Yellow Pie Plate?. Participation for all these programs increased due to offering them both in-person and virtually.

One topic covered, end of life planning, can be an intimidating process that is often confusing and stressful. The Planning AHEAD (**A**dvance directives, **H**andling financial changes, **E**state planning and **A**rriving at **D**ecisions for the end of this life) curriculum is a seven-session program that helps participants create a comprehensive end-of-life plan for themselves and/or a loved one. The goals are to help participants create plans that reflect their wishes and to help those who lose loved ones to have the information they need to successfully transition after.

In-person Planning AHEAD sessions held in 2024 had 85 participants while the virtual classes had 27 regular attendees.

In late 2024, the Hmong adaptation of the Planning AHEAD curriculum was released. Wood County is excited to begin offering this program in 2025.



Human Development & Relationships

RENT SMART



Rent Smart

Taught by Jackie Carattini, Extension Educator

Helping to make renting a great experience for you!

Access to safe and affordable housing is an issue facing many central Wisconsin residents. It is often difficult for tenants with a positive rental history to find affordable and safe housing but if you have any negative experiences in your past it is extremely difficult.

Carattini worked with local coalitions, partner agencies and county departments and programs (Wood County Jail and Probation and Parole) to offer the Rent Smart program on a monthly basis. Rent Smart is a six-session course that helps participants with negative or limited rental records gain the skills to find and keep safe and affordable housing. We also train service providers to use the Rent Smart program with their clients.

Carattini offered Rent Smart monthly in 2024 for participants in the Wood County jail using a virtual format. Classes rotated with male and then female participants every other month.

- 100% of participants were able to request their credit reports
- 86% of participants state the course will help them obtain appropriate housing in the future
- 100% state the course will or might help them keep future housing
- 100% of participants reported that they now know how landlords screen applicants

Carattini also partnered with the Marshfield Family Health Center to offer Rent Smart in conjunction with the Rent Ready program. The series was offered every month at both the McMillan Memorial Library in Wisconsin Rapids and the Everett Roehl Public Library in Marshfield.

The Rent Smart program also offers a train-the-trainer course for community service providers so that they can use the curriculum to help their clients meet their housing needs. This course was held in July 2024 and had attendance of 67-91 participants for each of the 4 3-hour sessions.



Natural Resources

Anna Mitchell & Jen McNelly, Regional Natural Resources Educators

SCIENCE BY THE RIVER

Science by the River, a free event celebrating all things science and outdoors, marked its fourth anniversary this year. The Central Wisconsin community was thrilled for its return after last year's event was canceled due to weather. Held on October 5th, the event attracted 150 visitors of all ages, eager to spark their curiosity and engage with science and technology in their community.

Participants had the opportunity to learn about and connect with various science and conservation organizations, gaining a deeper understanding of local science and conservation efforts. The event featured representatives from 17 different partners, each hosting a "discovery station" with information and activities related to science, conservation, and their respective organizations.



Attendees at one of the discovery stations at Science by the River.

A crowd favorite was the discovery station hosted by Heart of Wisconsin Amateur Radio and the Marshfield Area Amateur Radio Society. Visitors to this station learned about the science behind radio operations and even had the chance to communicate with the International Space

Station. Local biologists from Pheasants Forever also hosted a popular station, where they discussed the value of native plants and helped visitors create seed balls to plant.



Attendees stop by the Inspector Cabbage station to learn how cabbage juice can be used as a pH indicator.

NRE BY THE NUMBERS

Outreach & Education

4

conference presentations

21

water quality focused events

1,087

total participants

Partnerships with Water Quality Focused Groups

5

lake protection groups

9

producer-led watershed groups

14

facilitated discussions or capacity building exercises

Research

2

social science surveys

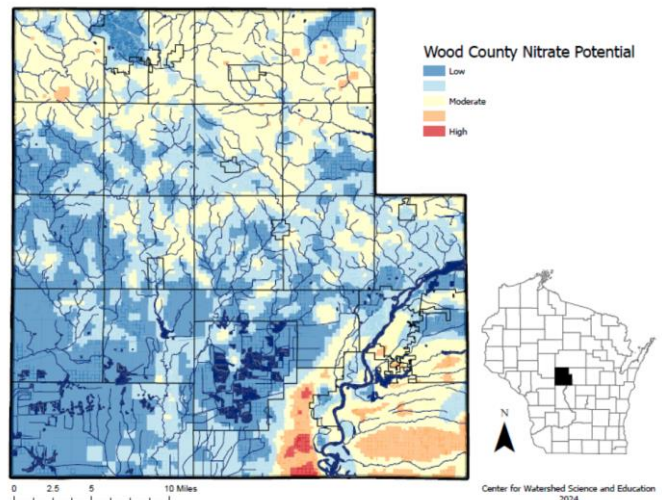


Natural Resources

Overall, this year's Science by the River was a resounding success for both visitors and discovery station hosts. Feedback from attendees highlighted the event as a fantastic opportunity to enhance their understanding of science within the community while also enjoying the great outdoors.

WOOD COUNTY NITRATE RISK MAP

Wood County, like many others in Central Wisconsin, had expressed a desire to be able to utilize the groundwater quality information that they had collected, in a way that supported local management decisions. Jen McNelly, Natural Resources Educator, worked with the Wood County Land and Water Conservation Department and the UWSP Center for Watershed Science and Education to develop a nitrate risk map for Wood County. The nitrate risk map is created using land covers and soil drainage information from within a 500 - meter buffer of each parcel centroid. Across Wood County Multiple linear regression was used to investigate the relationship of nitrate to weighted drainage rank and the percentages of land cover classified as: potato/vegetable, continuous corn, cash grain, and dairy rotation. The factors analyzed are known to influence well water quality including geologic influences (i.e. soil drainage classification) and human activities (i.e. agricultural land cover types) resulting in an assigned risk for potential nitrate contamination.



The Wood County Nitrate Risk Map is used to support local management decisions

The Nitrate risk map can be used as a decision support tool for the Wood County Land and Water Conservation Department and local decision makers. The tool has been incorporated into the Wood County Land and Water Conservation Plan and is already being used to help identify areas where best management practices may be beneficial on the landscape. The same process is being used to develop nitrate risk maps for Marquette, Adams, Juneau, and Waushara Counties over the next year so that these maps can also be used on a regional scale.



SURVEY INSIGHTS: STRENGTHENING FARMER NETWORKS IN WISCONSIN

To gain a deeper understanding of how farmer networks are functioning and the support they receive, Anna Mitchell and other Natural Resources Educators conducted a comprehensive survey involving various agencies and organizations that support these networks in Wisconsin. The survey aimed to uncover the dynamics of these networks and the nature of their collaboration with partners. The results provided valuable insights into the types of support that are most beneficial and needed by farmer networks and their collaborators. Notable strengths and successes of these networks include education and outreach, particularly peer-to-peer education, outreach opportunities with youth, and engagement with non-agricultural communities. Additionally, there is a strong willingness to adopt new conservation practices and diversify current operations to include these practices. The diversity in agricultural systems and ages among members also stands out as a significant strength. However, the survey also highlighted primary challenges, such as recruiting middle to late adopting farmers, sustaining commitment from current members due to leadership burnout and time constraints, and managing group infrastructure and operations. We have engaged in meaningful discussions about the survey results and the future direction of our project with key partner organizations, including the Department of Agriculture, Trade and Consumer Protection. These conversations have been crucial in aligning our efforts and ensuring that we continue to meet the evolving needs of farmer networks.

COUNTY POLICIES TO PROTECT GROUNDWATER QUALITY WEBINAR

Elected officials from across Wisconsin have been requesting information on what policies and zoning options are available to them in order to protect or improve groundwater qualities within their Counties. The webinar was created by a partnership between the UWSP Center for Land Use Education and UW-Madison Division of Extension Natural Resources Groundwater Educator in order to discuss the strengths and weaknesses of zoning as a tool to protect groundwater. Topics covered during the webinar included minimum lot sizes for homes on septic systems, zoning options for high nitrogen land-uses, and wellhead protection ordinances. The webinar was attended by over 20 elected officials from across Wisconsin and was recorded and can be accessed at the UWSP Center for Land Use Education's webinars website: <https://www.uwsp.edu/clue/center-for-land-use-education/planning-and-zoning-training/planning-and-zoning-webinars/>



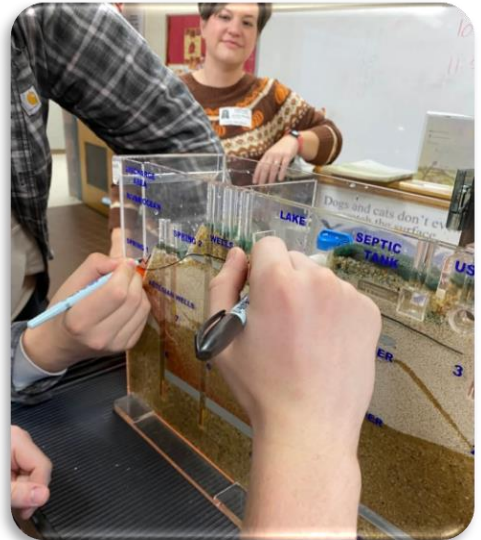
Natural Resources

ENGAGING STUDENTS IN WATER SCIENCE

Anna collaborated with a citizen watershed organization to host an enriching outdoor field trip for high school students in the Nekoosa School District.

This educational experience allowed students to rotate through multiple stations led by conservation professionals and members of a citizen-led lake protection group. During the field trip, students engaged in hands-on learning activities that demonstrated the impact of human actions on water quality, the movement of groundwater through the landscape, the benefits of native shoreline plants and the risks posed by aquatic invasive species. Additionally, students discovered ways to get involved in citizen-led water restoration efforts and explored potential career paths in conservation.

The 14 Mile Watershed Alliance, a citizen-led lake and watershed protection group, partnered with this event by providing a venue for the field trip and lunch for both students and station leaders. Members of the organization also volunteered as station leaders and group leaders, significantly contributing to the success of the event.



Jen McNelly teaching students about groundwater utilizing the Groundwater Model.



Jen McNelly leading a station about environmental factors that affect water quality during a Nekoosa school field trip.



Wisconsin 4-H

Laura Huber, 4-H Educator

Olga Meza, Bilingual Associate 4-H Educator

4-H'ERS PLEDGE THEIR HANDS TO LARGER SERVICE

At every 4-H meeting, members and volunteers recite the 4-H Pledge which includes committing "my hands to larger service." Learning how to give and the importance of giving is central to the 4-H experience. In addition to helping young people learn the importance of giving back, service learning creates real and valuable benefits in local communities.

In the 2023-24 4-H year, youth volunteered 4,153.5 hours and 4-H volunteers gave 5,905 hours of their time. According to Independent Sector, in 2024 **every hour volunteered in Wisconsin was worth \$34.00**. Using that data, Wood County 4-H volunteers (youth and adults) contributed **\$341,989 worth of service to Wood County communities**.

Examples of service include:

- Hands-on education stations at Nekoosa's Giant Pumpkin Fest and Wisconsin Rapids Farmers Market
- Light set up, donation collection and light take down at Rotary Winter Wonderland
- Meal service at St. Vincent de Paul
- Meal preparation at Ronald McDonald House
- Highway clean up near Wisconsin Rapids, Marshfield and Pittsville
- Making and distributing May baskets to senior citizens in Auburndale and Pittsville
- Building community in nursing home settings by setting up petting zoos, sharing fair projects and leading games like Bingo for residents
- Working at community events:
- Historic Point Basse's Festival, Pioneer Winter Feast and Harvest Fair

I pledge my **HEAD** to clearer thinking,

My **HEART** to greater loyalty,

My **HANDS** to larger service,

And my **HEALTH** to better living,

For my club, my community, my country and my world.



4-H BY THE NUMBERS

562 youth members

115 adult volunteers



Two 4-H members share the cardboard ski-ball game they built with youth at the Downtown Farmers market in Wisconsin Rapids.



Wisconsin 4-H

- Pittsville Heart & Sole Race
- Main Street Marshfield's Holiday Parade
- Building beds and blankets for Sleep in Heavenly Peace
- Cleaning up and maintaining summer flower displays in public parks
- Collecting donations for and walking dogs at South Wood County Humane Society, Clark County Humane Society, and Marshfield Area Pet Shelter

Wood County 4-H'ers are giving back to the community as youth and will continue to contribute to the well-being of their communities in the future.

HELPING YOUTH BUILD LIFE SKILLS THROUGH TRAVEL

Travel experiences are impactful for teens. In addition to meeting new people, youth travelers are exposed to new cultural experiences and build important life skills like time management, adaptability, and independence.

In 2024, Wood County 4-H offered and led several travel experiences. Overnight Summer Camp is a 3-day, 2-night adventure at Northern Lakes Impact Center near Rhinelander. Campers are in grades 3-7, and counselors are in grades 8-13. Discover Wisconsin is a 3-day, 2-night adventure for 5th - 8th graders. Each year we explore a new part of the state, and in 2024, we focused on far northern Wisconsin. We stayed at UW-Superior while exploring the region.



4-H'ers outside the US Capitol before entering for a guided tour.



Our newest offering was to Washington DC with the Kohl Educational Foundation's DC Learning Journey program. Travelers in grades 7-12 were able to connect the US history they've learned in school to life. Everyone learned about US History and culture while visiting government buildings, monuments, and museums.

Connecting US history to family history at Arlington National Cemetery. This 4-H'er's cousin was Wood County native, Dennis Johnson, who was killed at the Pentagon on September 11, 2001.



GIVING BACK TO THOSE WHO GIVE

The 4-H program is so successful because of dedicated volunteer leaders. We rely on adults who believe in the power of 4-H to partner with young people and lead clubs, project meetings, fundraisers, service learning projects, and more. In 2024, 115 adults served as 4-H volunteers.

Volunteering benefits individuals as well as the program. Volunteering offers intrinsic benefits like a sense of purpose and social connection, but it also offers other benefits. In Wood County, we have committed to offering optional professional development opportunities to our volunteers. This professional development helps them in their 4-H volunteer role and also in their daily lives, too. The 4-H Volunteer Retreat is an annual event that helps volunteers connect to one another and share ideas while also developing skills that help in their work lives. They learn team building, project management, and so much more. This was the third year we offered 4-H volunteer retreat, and the program is now attracting 4-H volunteers from Portage, Langlade, Lincoln and Marathon counties in addition to Wood!



Volunteers work together as they conduct experiments on eggs - part of 4-H's ChickQuest curriculum.



Extension

UNIVERSITY OF WISCONSIN-MADISON

extension.wisc.edu | info@extension.wisc.edu

An EEO/AA employer, University of Wisconsin-Madison Division of Extension provides equal opportunities in employment and programming, including Title VI, Title IX, the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act requirements.