

Yellowstone County



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A view of the Yellowstone River and rimrocks near Coulson Park.

Yellowstone County, the most populous in Montana, is home to a blend of urban and rural communities who work together to make a thriving industry hub. As the population steadily grows, the agriculture, energy, and healthcare industries continue to lead the economic forces and provide thousands of job opportunities. The agriculture sector is largely comprised of receipts from wheat, barley, sugar beet, alfalfa, corn, and beef production, while the energy market is led by oil, natural gas, and coal. Billings, specifically, serves as the regional healthcare destination for many individuals across Montana and Wyoming. Yellowstone County has three full-time county commissioners and one of the largest Extension staffs, with 3 agents, 2 program assistants, and 2 administrative assistants. The commissioners, Extension staff, and Montana State University work together to meet the community's diverse needs.

Reimagining Worden and Ballantine

In the summer of 2021, community members in Worden sought help from MSU Extension to “revitalize” what they perceived to be a dying town. Through the recommendation of MSU Extension Yellowstone County, they applied for and were accepted into the Reimagining Rural statewide program.

Reimagining Rural gathers communities of rural Montana together to hear speakers talk about responses to key issues rural communities face. After each session, attendees discussed how these responses might be approached in their community. The discussions were facilitated by MSU Extension Yellowstone County agents. Fifteen to twenty individuals attended each session and were positive about ideas for their community. Attendees were comprised of people who had lived in the community their entire lives, as well as people who had relocated because they desired the rural town feel.

Collectively, they agreed a community feedback survey would be beneficial to help guide their project. This survey asked for community feedback on the brainstormed ideas the Worden Reimagining Rural group discussed during their sessions. The survey was distributed to the school, main street businesses, and virtually. A strong response of completed surveys were received, with half being returned via hard copy and half being returned virtually.

Survey respondents agreed that the strongest assets of the Worden area are: 1. the people of their community; 2. the school; 3. Main Street.

After reading the survey responses, community leaders worked together to determine an initial project, and continue

to work with MSU Extension Yellowstone County to apply for a grant which will assist in implementing the project in spring of 2022. The community identified several ideas promoting connection in their rural area including a farmers market, community-based classes, and a food truck night. They are working together to offer a gathering on Main Street in the spring and the fall and have even bigger ideas to consider as they move forward. Regardless of whether this group receives a grant, their ability to come together to respond to their community will carry them forward.

Addressing Ag Community Needs in 2021

Small acreage landowners and agricultural producers make up the majority of MSU Extension's ag clientele in Yellowstone County. From 2018-2020, the MSU Extension Yellowstone County agricultural agent was contacted 294 times regarding small acreage management. Because that population had not been served through formal education, a small acreage stewardship program was implemented in 2021.

Topics offered were based on previous client conversations and included grazing management, weed management, and wildfire preparedness. Seventy-one individuals attended the webinars with 20 attending all three sessions. Offering the sessions separately allowed attendees to tailor their learning based on topics that were most relevant to them. An analysis of the combined evaluations showed 100% of respondents rated the webinars as good or excellent. More importantly, 88% indicated they planned to make management changes due to the presented information. Examples of management changes included thinning trees near home to decrease wildfire risk, utilizing Extension to identify weeds growing on property, fencing property to allow for grazing rotation, and controlling prickly lettuce to prevent spread and increase land productivity.

Agricultural producers also faced challenges in 2021. Due to the severe drought, Extension statewide saw an increased demand for nitrate testing of forages. The Yellowstone County office tested four times more samples in 2021 than in 2020. The 164 samples, representing approximately 13,000 acres, were comprised of hay barley, oats, triticale, wheat, peas, alfalfa, grass, and weeds. Using a semi-quantitative testing method, 64% were estimated to have unsafe nitrate levels (greater than 1500 ppm NO₃). One positive outcome was that most producers who had not yet harvested their forage let the forage mature and allowed nitrate levels to decrease to a safe level before harvesting. Nitrate levels above 1500 ppm NO₃ can cause reduced appetite and milk production, weight loss, abortion, and death in livestock.

Estimates of prevented losses are difficult to assess; however, from the testing estimates, we can conclude that producers accounting for 8,000-12,000 tons of elevated nitrate hay were educated on the inherent risks. Producers were also given information to help them make necessary management decisions like mixing elevated nitrate hay with non-nitrate hay or feeding elevated nitrate hay to a lower risk species (e.g., horse).

4-H Camp Provides Teens with Skill Development

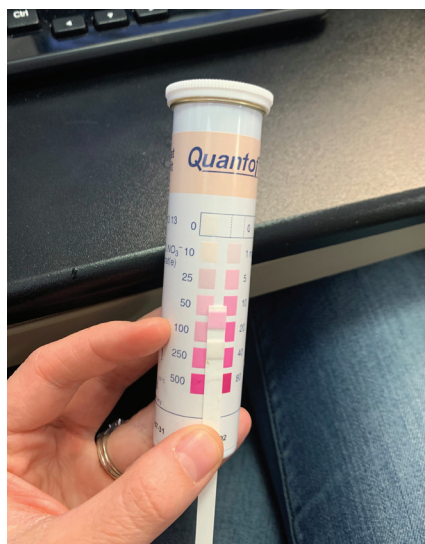
Research has clearly shown that the camp counselor experience provides an excellent opportunity for teens to gain leadership skills that are proven to build much needed life skills that will help them later in life. 2021 added an additional obstacle for Yellowstone County camp counselors and counselors-in-training due to uncertainty of the camp's availability. Because of that, the 42 teens, aged 13 – 18, and selected from Yellowstone, Carbon, and Stillwater Counties, were tasked with planning camp in six short weeks compared to the typical 18 weeks. Counselors and CITs are responsible for planning the workshops, opening and closing ceremonies, campfires, flag ceremonies, cabin challenges, mock trial, and dances.

During camp, the counselors were also presented with unique circumstances. Due to a limited camp facility staff, counselors showed their maturity by taking on new safety roles. Counselors were responsible for their campers 24/7 and wore many hats, including sometimes serving in the role of a parent, role model, confidant, counselor, nurse, and mediator all in one day.

Additionally, these teen counselors learn roles and responsibilities, the camp mission, goals and expectations, appropriate crisis and emergency response, and safety training. At camp, a fierce windstorm resulted in quickly moving all campers inside, requiring adaptive skills in keeping campers safe and entertained.

Post-camp survey results showed great impact on the counselors and CITs involved, recognizing the experience and skills that prepare them for careers. When asked what skills they developed serving as a camp counselor, the top 8 identified were:

1. Leadership
2. People skills
3. Communication
4. Patience
5. Responsibility
6. Teamwork
7. Problem solving
8. Planning



Top: 4-H counselors from Yellowstone, Carbon, and Stillwater Counties at camp, by Mikey MollmanRoni Baker; **Bottom Row: (left)** Callie Cooley compares color to estimate nitrate level of triticale hay, by Callie Cooley; **(center)** A view of Main Street in Worden, by Mikey Mollman; **(right)** Master Gardeners clean up MetraPark Square Foot Garden, by Amy Grandpre

Teens reported impactful lessons learned including, “I’m more responsible and have made lifelong friendships; I have learned leadership skills and how to handle stressful situations; I’ve learned how to make campers have fun; It’s taught me how to communicate better and made me more outgoing.”

Online Offering Increases Master Gardener Class Participation

The Yellowstone County Master Gardeners have prided themselves by hosting in-person course sessions. This is not only great for the hands-on learning process, but immensely helpful in creating connections and bonds that facilitate ongoing program involvement, often for many years. Enter COVID-19, no more in-person classes, enter isolation and no class time connections, but ultimately enter the challenge of how to continue reaching our county with the Master Gardener program.

In January of 2021, MSU Extension offered the Level 1 recorded classes online to test the public’s reception of solely online classes. Soon thereafter, the Level 2 Master Gardener classes were presented via 11 live webinars. Seventeen Yellowstone County participants signed up out of 55 Montana participants, making up 30% of the state’s attendees. The even better news was that the average 12 Level 2 participants a year increased to 17; a 40% increase.

Both the Level 1 and Level 2 live webinars caught on well. With continuing COVID-19 concerns, recordings were exclusively utilized for the Level 1 course and developed and offered for the Level 2 course. Suddenly a new segment of the Yellowstone County population was attracted to the online course versions, liking the option of taking the courses any time of day, at their own pace, with ongoing access to courses not limited to a certain time frame.

As of November 2021, 56 Yellowstone County participants have signed up for Level 1, which is more than our 5-year average of 47 participants. Because classes are offered year-round, participants continue to sign up each month. The majority of our Master Gardener projects (Billings Downtown Farmers Market, Arbor Day, MetraPark and ZooMontana Gardens), are outside or garden-oriented, providing the best opportunity for social distancing. They have continued to be worked on and expanded, even with ongoing COVID-19 challenges.

Yellowstone County Staff



Montana State University Extension is an ADA/EO/AA Veteran’s Preference Employer and provider of educational outreach.

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