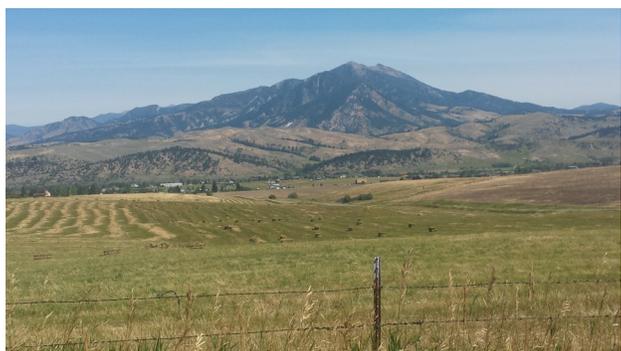




Extension in Gallatin County

This year the Gallatin County Extension office enjoyed a fully staffed office with the addition of a SNAP-Ed program manager, Laura Horrigan, and two seasonal employees (natural resource seasonal and an intern). Our intern has now transitioned to fill a vacated position of 4-H mentor program



Fields of hay looking toward the “M” in Gallatin County.

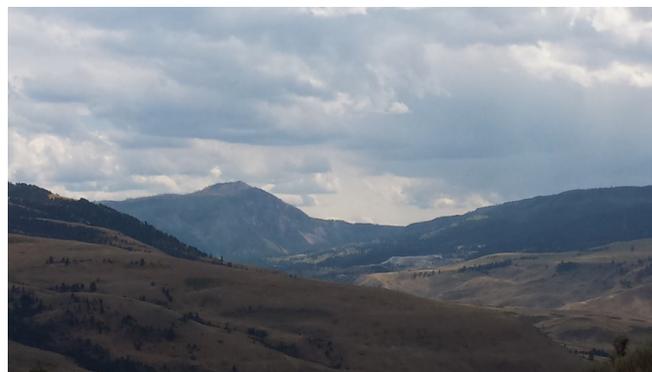
manager. She is gaining great experience that will help her in her goal of a future career in Extension. You can read more about all of their experiences in this report.

We strive to enhance our work as a part of Montana State University and the land-grant university system. MSU Extension is a statewide educational outreach network that applies unbiased, research-based university resources to practical needs identified by the people of Montana in their home communities.

Our work in agriculture, natural resources, horticulture, supplemental nutrition education and youth development is

based on local community needs. Gallatin County Extension provides essential resources and expertise that help others reach their goals. The major function of Extension is to provide informal adult and youth education--to help people help themselves. It is action directed education for helping people solve various day-to-day problems.

The work done by the Gallatin County Extension office could not be done without the support of MSU, but also the County government of Gallatin County. Their support of our office and personnel has allowed us to expand and improve programming throughout the county. Our office brings in grant dollars that match our county funding on a 3:1 ratio, which means we are tripling county dollars to expand our reach to our community. We hope you will enjoy learning about our highlighted accomplishments from this year and we look forward to our work in the next year.



View of rangeland in Gallatin County.

Gallatin County Hosts MSU Intern

by Hayley Richards

As the intern for Gallatin County Extension over the summer of 2015, I have gained incredible experience, hands-on knowledge, and a real world insight into how a county Extension office works. Being a student at Montana State University teaches you many important skills and concepts through lectures, class work, and other projects. I was thrilled to be accepted into the Gallatin County position and arrived ready to learn, but what I gained from my time working with this office and the people therein far exceeded my expectations and assumptions.

The work environment is both welcoming and fascinating. Each individual, regardless of discipline, treated me kindly, respectfully, and constantly offered me opportunities to learn. The great thing about having an office serving various needs, is that I was able to see the full spectrum of possibilities in Extension. I was involved in agriculture, natural resources, 4-H and youth development, and especially the administrative support that holds it all together. It was eye opening to see the individual gears that work together to run the office.

See Intern, continued on page 6.

Supplemental Nutrition Assistance Program Education

SNAP-Ed

SNAP-Ed takes root in Gallatin and Park Counties

In the less than six months since this program has been reintroduced to the local counties, the SNAP-Ed Program has provided lessons to adults as well as youth. The goal of the program is to not only provide direct education, but to stand out as a resource for making the healthy choice the easy choice. Working with local committees and schools, the program manager provides knowledge and assistance to address the needs of the low-income population. They will continue to work toward fostering healthy environments where those on a budget work, play, eat, learn, live, and shop.

The target population of the SNAP-Ed program is those with a low income. The program devotes time towards meeting with services around town that are already serving this population and collaborating to bring the educational series to them. With specialized lessons and teaching tools, the program manager travels to multiple locations. With assistance from the Gallatin Valley Food Bank and some of the hosting agencies, several of the classes include a full meal for participants.

Adult Educational Series: Eating Smart, Being Active

The adult curriculum includes ways to plan and shop for a healthy, balanced diet while on a budget.

Classes have been held at the Park County Senior Center, Head Start locations, the Community Café, among others. The skills and

information taught have introduced nutrition facts label reading, identifying a whole grain, and why each food group is so important.

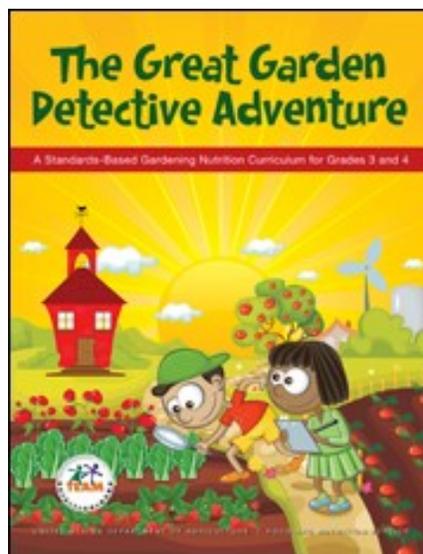
One graduate stated, “I never realized how confusing food packaging is and how I really need to read the labels for myself to know what foods are good for me. Now I know which words to look for and to research each product a bit more.”



There is a lot of interest in the community to continue providing adult education in various locations and the program manager will provide classes as available.

Youth Gardening Series: The Great Garden Detective Adventure

SNAP-Ed has several youth curricula for qualifying Title One schools. In Gallatin and Park counties, the school that qualifies is Whittier Elementary School. SNAP-Ed provides the Great Garden Detective Adventure in the PACE program on Fridays. Throughout the series, students will help plant vegetables and watch them grow. There will



also be educational activities about fruits and vegetables that grow here in Montana.

During the first lesson, one of the recipes to try was a sautéed Swiss Chard. After each receiving their mouthful to try, every student asked for seconds! They loved the Swiss Chard and look forward to eating their fruits and

vegetables in new, exciting ways! This curriculum walks them through the process of a seed growing into a plant that we can either eat as a vegetable or harvest the fruit from. There is also a lot of encouragement to involve the parents and teachers in increasing fruit and vegetable consumption.

Online Resources

Please check out the website BuyEatLiveBetter.org for recipes, meal planning tips, physical activity ideas, as well as the information to sign up for local, public classes. The Facebook Page and Pinterest have been added this year to provide digital content to those in the community, especially those who have completed the class but want a consistent source of research-based information about eating and living healthfully.

Natural Resources

Program Areas and Capacity

The Natural Resource Program continues to develop capacity to better assist our community members. This year the program focused on several project areas, including: (a) assisting private landowners to manage their forest to improve forest health and reduce wildfire risk, (b) supporting the State of Montana efforts to monitor the extent and scope of aquatic invasive species, (c) improving our management and understanding of our high elevation forest, and (d) monitoring the condition and function of our wetlands. Additionally, we supported a summer technician whose dedication and skill greatly improved the program's capacity.



The charred trunk is that all that remains of this tree following a wildfire. Photo Brad Bauer

Summer Technician Perspective

This is an edited version of Adam Rice's summer experience. Adam worked on our wetland monitoring project. This project has been designed to draw volunteers into the rewarding opportunity to learn about the important role and function that their wetlands provide.

Spending the summer hacking through thick willow patches while getting swarmed by mosquitoes, bitten by horseflies and cut by Russian olive branches, was one of the best summers I've had in recent memory. This summer I was tasked with monitoring and assessing different wetland sites throughout Gallatin County. Being the first year of observations I have nothing to compare my findings to, so let me just tell you what I observed.

There are wetlands everywhere, seriously, everywhere. Along the highways, in the middle of the forest, behind shopping centers, in valleys, just about anywhere water has a slight obstruction in its flow, you'll find a wetland. What amazed me was how much wildlife depended on these areas for habitat. At a tiny corridor of wetland between I-90 and Murdoch's in Bozeman, I was attacked by red wing blackbirds, and saw a deer hop a fence, several different types of scat and beds, and a bald



Wetland near Big Sky. Beavers have created a deep pond. Photo Adam Rice

eagle.

Over time however, I began to notice human impact on the wetland. Along trails and roads, the wetlands were being attacked heavily by invasive species, trash was often present, and roads and berms have been built that affect the wetland. I don't propose we stop enjoying these areas, but let's work to be a little more careful when we do.

Project Focus	Funding Source	Budget
Aquatic Invasive Species	DNRC	\$5,000.00
Big Sky Whitebark Pine	Big Sky Natural Resource Council	\$3,500.00
Forest Health and Wildfire Protection	DNRC	\$538,000.00
Wetlands	Environmental Protection Agency	\$127,000.00
Total		\$673,500.00

Program Area's Abstract

- (A) Assist Private Landowners—we provided technical assistance and cost share to manage private forest across Big Sky, the Bridger/Bangtail mountains, and in Meagher County.
- (B) Aquatic Invasive Monitoring—we monitored portions of the Missouri River, Fishing Access Points, and several lakes for the presence of aquatic invasive species.
- (C) High Elevation Forest—we worked with Big Sky to form a working group and develop project capacity to address the declining condition of whitebark pine.
- (D) Wetland Monitoring—we are developing and implementing a monitoring tool to capture the long-term trends in wetland condition and function in Gallatin County.

4-H Youth Development

4-H Members Learn Interview Skills

The 4-H program teaches youth life skills that will help youth grow into successful adults. Record keeping and interview skills are just two of the life skills the 4-H members displayed at the 2015 Gallatin County Fair. Every Gallatin County 4-H member that exhibited a project at the Gallatin County Fair completed a 4-H record book and went through an interview evaluation. Members, whether in livestock, horse or indoor projects, logged their expenses, hours spent, project goals, community service projects, and honors and awards. The record book gives youth the chance to reflect on the hard work they have put into achieving their goals.

The interview evaluations are one of the most important elements to 4-H. Youth are interviewed by members of the community that have volunteered their time and expertise on a certain project. The youth have a chance to communicate what they have learned and showcase their record book. The community members that serve as judges comment on how much they learn from the youth and how impressed they are with youth projects. The interviews are a great way for the community to witness the impact the 4-H program has on youth in Gallatin County.

Family Information Night Helps Gallatin County 4-H Program Grow

National 4-H Week is the first full week in October each year. During 4-H week the last two years, Gallatin County 4-H has held New Family Information Nights. At this event new families come and listen to a short presentation about 4-H while the youth do hands-on activities. Parents are able to get all their questions answered that night as well.

In 2014 there were 15 families that attend the event with 13 of the families signing up for 4-H. In 2015 one event

was



Families attending the New Family 4-H Information Night held in Manhattan, MT, during National 4-H week in October.

held in Bozeman and one in Manhattan. The attendance grew to 40 families between the two sites. There are plans to expand the event to more communities in 2016.

Enrollment in 4-H clubs and projects in Gallatin County has been on the rise over the past four years.

2011-2012	371
2012-2013	537
2013-2014	572
2014-2015	635

With the interest from new families, the 2015-2016 enrollment is expected to rise above 650 members enrolled in 4-H clubs and projects.

New Leaders Get a Head Start with Leaders Training

The 4-H program is dependent on volunteer leaders. Each year new volunteers sign up to become 4-H Club leaders or project leaders. Some of them grew up with 4-H as youth and others are just finding out about 4-H. No matter what their experience level with 4-H is, all new volunteers are required to attend a New Leaders Training. The goal of the training is to make the first year as a 4-H volunteer as successful as possible.

The main areas the training focuses on are:

- Structure of Gallatin County 4-H
- Essential Elements of Youth Development
- Teaching Life Skills
- Policy and Procedure
- Where to find information

The 2014-2015 year was the first year the New Leaders Training was offered. The response from the volunteers that have attend the training is very positive. Most felt prepared to take on their volunteer role after the training. The training has also resulted in more new leaders joining the various committees 4-H needs to operate. Through the New Leader Training we have been able to give the volunteers the confidence and knowledge needed to expanded their role in 4-H, compared to gaining the knowledge and confidence through years of service.

4-H Youth Development

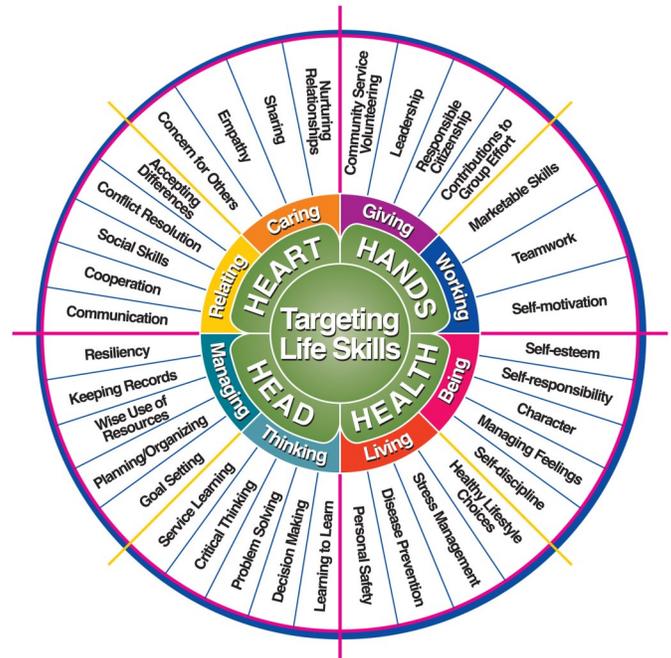
Volunteers at the Heart of 4-H

Volunteers are the heart of the 4-H program and without their dedication and support the program would not be possible. It takes a large group of dedicated volunteers to put on the many different projects and events that 4-H has to offer. Gallatin County 4-H has over 130 volunteers that fill various roles within the 4-H program. The reasons that they volunteer might be different but they all share a passion to make a positive impact on the youth in our community.

Once a person becomes a 4-H volunteer many of them volunteer for more than five years.

5-9 Years of Service	37 volunteers
10-14 Years of Service	12 volunteers
15-20 Years of Service	6 volunteers
25+ Years of Service	4 volunteers

The volunteers time above combines for 629 years of service to Gallatin County 4-H. The youth of Gallatin County benefit greatly from the service of all our volunteers.



4-H Life Skills Wheel that shows all the life skills youth learn in 4-H. The new leaders learn how to incorporate teaching life skills along with their projects or club meetings.

4-H Youth Mentoring

The 4-H mentoring program has had a busy year! We offer our afterschool program with Greater Gallatin United Way Kids-LINK, a partnership with Big Brothers, Big Sisters of Gallatin County (BBBS), and Christine McCrae Holland is still leading the Dag Nabid club for those in the mentoring program who would like to join a more traditional club. We have also attended workshops to further develop our program skills as program leaders and better provide for the youth in our county.

Our afterschool program at Meadowlark Elementary is flourishing with a strong student turn out. We average 25 students every Monday and use a lot of 4-H curriculum and ideas. We invite clubs and organizations from Montana State University to come volunteer each week to converse with and involve the youth. Our kids love to come and work with the college students and are always excited to participate in 4-H day! After the Gallatin County Fair slowed down, we continued to host Family Night Out events with Big Brothers, Big Sisters of Gallatin County. At these events we recruit around five student volunteers each time from the education department at Montana State University to be able to mentor and engage the youth and also volunteer in their community.

We attended workshops at Annual Conference for Extension, online webinars for mentoring program managers, and most recently the STEM mentoring summit at Museum

of the Rockies. Annual conference provided the opportunity to meet with fellow program managers and other professionals involved with mentoring. We learned about underachieving boys, better branding, and 4-H camp, among other topics. We also like to stay updated on what is going on around the nation by listening in on webinars hosted by national leaders in mentoring.

In November the Lieutenant Governor hosted a summit on getting girls more involved in STEM in schools, clubs, and in careers using mentoring. It was a fascinating conference with amazing speakers from multiple disciplines and organizations. Being able to attend events such as these provide us with the tools and skills to provide better opportunities for the youth in Gallatin County.

- These programs allow over 375 youth to engage in learning, skill development, character building, and community engagement, free of cost.
- Surveys indicate that program participants increase their social competence skills through participation in the program and will continue to participate in program activities.
- Evaluations show all youth have an increase in self-confidence and an improved outlook on life. They make more positive choices after enrollment in the program.

Intern

Continued from page 1.

On the agriculture side, I was able to ride with Emily Lockard on many occasions to work with producers, homeowners, county commissioners, and other governmental organizations such as NRCS. Emily Lockard does so much for people in the community to ensure that they have the right tools to accomplish their goals. The weekly plant clinic held in our office showed me a glimpse of the pests and troubles that Gallatin County residents have in their yards and gardens. People were so grateful to be able to bring their sample in and talk with a professional who was ready to listen and provide solutions. I additionally attended her Small Pasture Management workshop that was hands-on and included very practical information. Emily also invited me to county commission meetings regarding the budget, and other community events. I learned so much more information working out in the field with her than I could have in a classroom.

Brad Bauer was very supportive and willing to provide me with an educational experience even though I had zero background in natural resources and forestry. He was patient and helped me to understand complicated forms and procedures when he didn't have to. I observed wetland assessments all over Gallatin County, where we rated the uniqueness and health of the areas. Opportunities for unique experiences were always offered, and I constantly felt included. A trip to a landowner's forest site taught me about correct management, all about trees, other plants, and also pests. It was interesting to be able to meet with the client and discuss goals and objectives of their own place and provide solutions. Brad also took the time to talk about his grant writing, and tips and tricks for the future of writing grants which is something that isn't easily lectured about.

A majority of my time was spent preparing for, organizing, and running the 4-H program at the fair. I was invited to attend fair board meetings, project committee meetings, and other 4-H events. Both Kelton Jensen, the 4-H agent, and JaNaie' Veca, our administrative support staff, taught me all of what goes on in the background to ensure that 4-H and the fair run smoothly. I learned how to register projects and classes online, helped with any big office projects

that I could, and was given the responsibility to be in charge of the Round Robin contest. This type of exposure can once again not be replicated in a classroom setting. I had to manage my time, work with difficult people, work long hours, and think on my feet when things change last minute. Being a 4-H member for eight years, I never understood the true amount of work that these dedicated employees put in to give back to their community.

My experience at this office is something that I won't ever forget, and it is one that was both beneficial to me and the office. I was able to give them extra support and a different perspective, while they gave me the skills, understanding, and a glimpse into the real world of Extension. The plan had always been to become an agent, but now I have a real grip, confidence, and appreciation for my future career. I would highly recommend this experience to students, other counties, and to Gallatin County to continue this program, because it genuinely makes a great impact.



Agriculture Programs

Agriculture Agent Emily Lockard continues to work with a variety of clients to help them improve productivity on their operations. Programs such as the Beef Producers educational meeting and the Crop School continue to be a well-attended venues for timely communication with producers. In addition to working with producers involved in traditional agriculture, Lockard works with new and beginning farmers as well as small acreage landowners.



View from a rangeland monitoring site.

For the second year, Lockard continued monitoring for Orange Wheat Blossom Midge and thankfully continued not to find any midges. This is great news for the producers of Gallatin County as Orange Wheat Midge continues to negatively impact crops in other parts of the state.

This was the second year Lockard worked with Dr. Mary Burrows to do on-farm case studies using fungicides. The data showed little to no benefit to fungicide use, but continued work is needed as we examine climatic variability and refine case study methodology.

Lockard was awarded a Western Sustainable Agriculture Research & Education Professional Development Program mini-grant that allowed her to install five range cages across Gallatin County. These cages are located in Dry Creek, Manhattan and Willow Creek. At the site of the range cages, Lockard conducted a line transect, established permanent photo points and clipped a range hoop. This baseline data will help as Lockard looks at precipitation data from each site to make associations with precipitation and forage production in the diverse locations of Gallatin County. This project also helps producers better understand forage production changes over time. The goal is to give producers tools to monitor changes in the long-term while using the cages as educational tools for everyone in the county as data is tracked and shared.

Lockard and Natural Resource Agent Brad Bauer conducted a Small Acreage course for the second year. This course complements the work of both Lockard and Bauer as they

work with many small acreage landowners on a one-on-one basis. In the small acreage course participants learned about weeds, soils, forages, grazing management and created management plans for their properties that they presented at the final class. This class is taught with many cooperators to connect with local experts from the Gallatin County Local Water Quality District, Big Sky/ Noxious Weed District, and MSU Extension specialists. Lockard and Bauer plan to continue these classes as they remain popular in order to reach the growing number of small acreage landowners.

In cooperation with Annie Heusher, Community Food and Agriculture Coalition of Missoula County; Tammy Howard, National Center for Appropriate Technology; and Katie



Participants of the small acreage class at the final class tour.

Weaver, MSU Extension - Park County, Lockard redesigned a series of classes piloted by Community Food Agriculture Coalition to fit Gallatin County. Together they taught and collaborated with local experts and farmers to help class participants create farm business plans. To receive a certificate of completion participants presented their business plans to the class. As this pilot class demonstrated, there is a growing interest in starting new farms or expanding current operations and Lockard plans to continue working to meet the educational needs of this growing sector.

Weed Control

Emily Lockard worked with the Gallatin County Weed District to secure funding for two Noxious Weed Trust Fund grants. These grants allowed for cost sharing for weed control impacting multiple landowners. The main targets of the project were knapweed, leafy spurge and Canada thistle. This project helped improve the grazing productivity and range health of multiple cattle operations and small acreage parcels. Coordination with the Gallatin County Weed District allowed for better insight and assistance to the landowners in this project.

Horticulture and Plant Clinic

Horticulture in Gallatin County continues to be a growing interest. To meet this need at the Gallatin County Extension office we have offered workshops and we continue to host a weekly Plant Clinic.

This year we held a Master Gardener Level 1 course that started in January and a Level 2 course that began in October. Course enrollment has been steady and the feedback received is very positive. To supplement the Master Gardener courses we worked with the Gallatin Gardeners to hold a workshop about vegetable production, and a local Master Composter, Kareen Erbe, taught composting workshop. From the positive feedback, we hope to host more horticulture classes.

In addition to horticulture workshops, our office has received multiple requests for workshops on canning. This year we partnered with the MSU Dietetic Internship program on the campus of MSU to hold workshops on water bath canning and pressure canning. This partnership worked well so that students, under supervision, were able to practice teaching, and attendees were able to learn valuable information about best practices for food preservation.

Our largest success related to horticulture continues to be the Gallatin Extension Plant Clinic, in its second year of . Agriculture Agent Emily Lockard and Dara Palmer, Assistant Master Gardener Coordinator, worked to supervise Master Gardeners who volunteered their time to answer horticulture questions. Brought in by individuals visiting the weekly Plant Clinic. Master Gardeners used their training to answer questions, did research to find answers and referred to specialists at the Schutter Diagnostic Lab to find answers to questions they didn't know how to answer. This great resource continues to grow in popularity. We had many visitors to the clinic that learned about it

last year as well as new clients excited about this resource. Clients have a few options to access the plant clinic. They can walk in during plant clinic hours, email questions or call. Not only is the Plant Clinic a great way to help the community with their yard and garden questions, it helps the Gallatin County Extension office keep up to date on current questions, diseases and growing issues



Participants learning about vegetable production at the Gallatin Gardener's Club garden.

that people in our community are experiencing. Master Gardeners who volunteered said they enjoyed this experience the most compared to other volunteer opportunities because they felt there were able to help the most people and learn the about horticulture in the valley.

Our dedicated Master Gardener volunteers contributed many hours to the plant clinic.

We look forward to expanding this program based on the great success we had the past two years.

Contact Us



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