



Welcome to Big Horn County

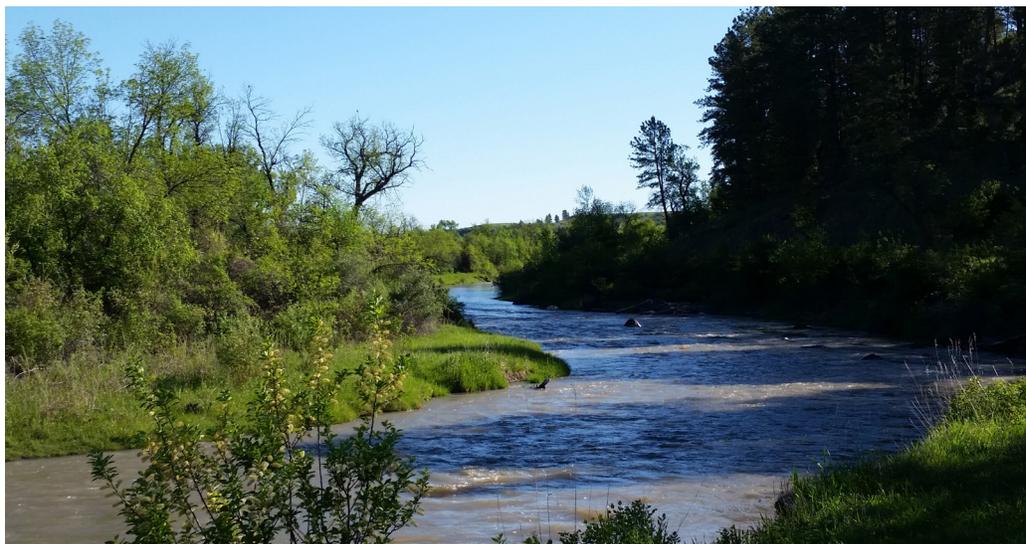
Big Horn County is a land of diversity. Rural and urban, rangeland and industry, past and present, creates a rich tapestry that makes Big Horn County unique. Encompassing over three million acres, Big Horn County includes the city of Hardin (county seat), Busby, Crow Agency, Decker, Ft. Smith, Lodge Grass, Pryor, Wyola, and the Crow and Northern Cheyenne Reservations. The Little Bighorn Battlefield and Bighorn Canyon National Recreation Area are two major tourism destinations within the county.

Agriculture and coal mining are the two primary industries within Big Horn County, both practicing sustainable production of food and fuel. Agriculture production in the county includes mainly beef cattle and farming dryland and irrigated acres. Common crops grown in the area include alfalfa, sugarbeets, and small grains such as wheat and barley.

The city of Hardin is the headquarters of Montana State University (MSU) Extension in Big Horn County. The two resident MSU Extension

agents and the MSU SNAP educator work hard to cover the county providing research-based, unbiased information to 13,000 residents. Information taught includes food production, horticulture, nutrition, food safety and preservation, finances, physical activity and home skills.

Thanks to the generosity of the Big Horn County Commissioners, MSU Extension agents Molly Hammond and Holly Jay, SNAP educator Shirley Redding, and administrative assistants Jill Dale and Kelly Zier, are able to provide a multitude of services to the county. These services include administering the Big Horn County 4-H program, the community garden, teaching ServSafe, food preservation, alfalfa management, estate planning, pesticide information, crock-pot cooking, livestock pests, exercise, and rodent control classes. There are also several one-on-one clientele contacts throughout the year to answer specific questions to these topics as well as others. Each person the MSU Extension office staff assists, helps in creating a better community.



Little Bighorn River outside of Lodge Grass. Photo by Molly Hammond

Community wellness and food safety education

Better Living through Enjoyable and Safe Physical Activity

The Centers for Disease Control estimates each year, millions of people 65 and older are treated in emergency departments because of falls. Over 800,000 patients a year are hospitalized because of a fall injury, most often a broken hip or head injury. Falls are among the 20 most expensive medical conditions, costing an average of \$30,000. Costs only increase with age. The long-term effects of the fall such as disability, dependence on others, lost time from work and household duties and reduced quality of life are not considered in these costs.

Better Living Exercise classes were offered this autumn for the first time in Big Horn County. The Arthritis Foundation Exercise Program is a low-impact physical activity program proven to reduce pain and decrease stiffness. The sessions include gentle range-of-motion exercises that are suitable for every fitness level and ability. These enjoyable and motivational classes may be done either standing or sitting in a chair.

The exercise program helps participants keep joints flexible and muscles strong; maintain and increase balance; increase energy; improve well-being; and improve sleep. There were over 34 registrations taken for the classes which began in

October and continued through December. The classes met twice a week for an hour and were led by Holly Jay, Family and Consumer Science MSU Extension agent, a trained leader for the program.

Better Living Exercise classes focus on providing a fun, safe and effective way to promote better health and lead participants in exercises that help them maintain independent living. Better Living classes have proven results such as decreased pain, improved joint function, improved balance, increased muscular strength, overall sense of well-being and better quality of life for participants. Participants also value the social interactions created in Better Living classes.

An educational component provides up-to-date information about arthritis self-management and exercise. The most popular aspect of the class is the relaxation activities that end each session. Participants look forward to this part of the class, and share that they “feel so good” and are “ready to face their day” after the relaxation exercises.

The program is grant-funded by the Montana Arthritis Foundation. Hand and ankle weights and exercise mats were purchased for use with this and additional classes to be held in 2018. Classes are held at the MSU Extension office in Big Horn County and are free and open to all.



Better Living Class at the Big Horn County Extension office.
Photo by Holly Jay

Providing food safety knowledge through ServSafe training and food preservation workshops

The Centers for Disease Control indicates approximately 48 million cases of foodborne illness are reported each year in America. Data was also reviewed from foodborne illnesses related to botulism. Of the foodborne botulism cases reviewed, 44% were caused by home-canned vegetables. The review went on to state, “Botulism prevention efforts should be focused on those who preserve food at home.”

ServSafe classes help food service workers and managers learn about and understand how to prevent foodborne illnesses. Nine classes were taught reaching 109 people in 2017. These workers represent schools, restaurants, civic organizations, child care facilities or senior care facilities. Many participants use the certification to gain employment, continue employment or as mobile food vendors serving and selling food during community celebrations.

Manager classes are more intensive trainings offered for food service managers and those who oversee establishments. Participants take part in an eight-hour class and must score 75% or higher on the exam to become certified. Manager Training participants indicated they would, “train staff, develop policies, monitor and correct problems identified, be more diligent in sanitizing procedures and careful with holding temperatures.”

MSU Extension in Big Horn County provided eight food preservation workshops for adults and youth. Free pressure canner testing is offered at

the Big Horn County Extension office throughout the year. MSU Extension agent Holly Jay has taken preservation training.

Preservation workshops share recommended food preservation practices. Each workshop includes an education component for preserving foods using a pressure canner, waterbath canner or through dehydration or freezing. The participants gain hands-on experience preserving foods for each method taught in the workshops. Lastly, participants take a sample of their efforts home to share with family and friends.

One participant shared she was afraid to use a pressure canner. She preserved low-acid food using a waterbath canner. (Low-acid foods must be pressure canned for food safety to prevent botulism.) After the workshop, she indicated she now felt comfortable using a pressure canner for low-acid foods and understood the risks of foodborne illness. Through these workshops, and her willingness to learn, she gained knowledge and skills that increased her confidence with using a pressure canner, which leads to a greater likelihood of her family not becoming ill by home preserved foods.

Many food preservation questions are asked via phone calls or walk-in clients. These conversations often lead to timely discussions of recommended practices. Approximately 25 individuals asked food preservation questions during home canning season. Because of ServSafe Trainings and food preservation workshops, successful participants have the knowledge to reduce the likelihood of foodborne illnesses in Big Horn County.

Food preservation workshop participants were able to take home the results of their class efforts. Photos by Holly Jay



Teach, Collaborate and Empower - Through SNAP-Ed in Big Horn County

One in every seven Montanans face hunger or food insecurity. Seventy-four percent of Montana adults eat less than five servings of fruit and vegetables each day, while 75% of American Indian Montana adults are overweight or obese. Big Horn County SNAP-Ed teaches low-income youth and adults at locations where they eat, live, learn, work, play and shop.

Shirley Redding, Nutrition Assistant, just completed our twentieth year of SNAP-Ed programming in Big Horn County. The SNAP-Ed program provides educational opportunities for youth and adults throughout the county.

Basic food safety, nutrition, and physical activities are incorporated into programming efforts in Lodge Grass, Crow Agency, Wyola, Hardin, Pryor, Fort Smith and St. Xavier elementary schools. The children sample healthy snacks and learn about MyPlate during six weekly sessions.

Adult classes teach participants about healthy eating, how to plan meals on a budget, food safety, shopping savvy and food preparation along with physical activity. Adult participants learn knife skills for preparing food along with basic cooking techniques to apply at home. Adults who complete a series of nine lessons can obtain an additional emergency food box from Helping Hands Food Bank in Hardin.

Redding collaborates by providing guidance for the Hardin Garden Board and Helping Hands Food Bank Board. River Valley Farmers Market participates in the “double the dollars” program, where each dollar of SNAP benefit is doubled when eligible produce is purchased by income-eligible families in Big Horn County. The SNAP-Ed program collaborates with community and statewide partners to leverage resources and increase program reach to eligible audiences.

The Big Horn County SNAP-Ed program empowers individuals to create changes through knowledge gained and applied, thus, making healthy choices for themselves and their families.

Shirley Redding, SNAP-Ed Educator, presenting a Creates lesson at River Valley Farmer’s Market in Hardin. Photo by Molly Hammond



Big Horn County 4-H Program

The Big Horn County 4-H program had a great year once again. MSU Extension appreciates all the hard-working volunteers and leaders who make this 4-H program possible, and a huge success. We had an increase in participation from the previous year with 119 youth members and 52 adult leaders.

The major highlight of the 4-H year is the Big Horn County Youth and Open Fair. This event is the culmination of the year for many youth. There were over 730 project entries for fair. Thanks to our generous community, the animal sale generated \$191,276, about a 10% increase from last year, that youth use to invest in their future.

Leading up to the fair, there are several other opportunities in which youth participate. Competition events include Fashion/Quilt Review, Demonstration/Speech Day, Cook-Off/Edible Arts, Big Horn County Horse Judging and Livestock Judging. Each of these competitions teaches youth life skills including decision making, critical thinking, and communication.

Youth that are 13 or older can participate in Montana 4-H Congress. Big Horn County 4-H had 16 representatives attend this summer event in Bozeman. Many participated in competitive events including Livestock Judging, Horse Judging, and Cook-Off. The Big Horn County 4-H Horse Judging Team accomplished a second place finish. There were also several workshops throughout Congress that helped teach youth further life skills including leadership and teamwork.

In preparation to take animal projects, members must attend an Animal Quality Assurance (QA) class. This year, Extension agent Molly Hammond held two QA classes with more than 40 participants. During this class, youth and families learned about good animal husbandry, including taking responsibility for their animals by properly feeding and watering, correctly administering injections if needed, how to read feed and drug labels, and many other aspects of responsibly taking care of an animal.

A new event held this year for 4-Her's between the ages of 10 and 13 was Tweener Camp. With about 20 participants, this event turned out to be a great success. The Big Horn County Junior Leader group started the first evening with Ice Breakers, followed by a campfire and games. During the Tweener Camp, youth also learned about bike safety, tying fishing flies, and tie dyeing t-shirts, each activity tailored after a project which can be taken through 4-H. This was a great event to keep younger members involved in the 4-H program and learn more about what 4-H has to offer.

Lastly, the Big Horn County 4-H program would not be possible without the support of the county commissioners, fair board, and the numerous adult volunteers and leaders who donate their time in helping to "Make the Best, Better." The MSU Extension office thanks all of our local 4-H supporters for their commitment to helping youth in Big Horn County.



Left: Fair booth display.
Right: Tweener camp participants.
Photos by Molly Hammond

Pesticide programs and the re-certification cycle

As of December 31, 2017, Big Horn County Private Agriculture Plant Pest license applicators will be entering another five-year re-certification cycle. In order to be eligible to renew their license into the next cycle, they need to have attained at least six continuing education credits in this last five-year cycle by attending programs that are worth credits. Several programs worth credits were hosted by the Big Horn County MSU Extension office in 2017.

The first was the Alfalfa Pest and Renovation Workshop held in February, with over 25 attendees. Some of the information discussed included how to measure a good alfalfa stand, alfalfa field renovation, alfalfa fertilization, hay testing, and alfalfa pest identification and management. Over 65% of the participants gained a better understanding and knowledge increase of the topics covered during the program to help improve their alfalfa production.

During the first week in October, Big Horn County MSU Extension took part in the 2017 Pest Tour. With over 35 participants in the program at the Big Horn County Fairgrounds in Hardin, topics included sugarbeet disease management, herbicide modes of action and diagnosing herbicide injury, pesticide laws, and

groundwater protection, prairie dog management, and how to clean pesticide sprayers.

The last couple classes held for license applicators to obtain credits were Pesticides and Alfalfa Management at the end of November, and Livestock Pests, Weed ID and Pesticides, in the first part of December. Each of these programs had about 20 participants in attendance. The Pesticides and Alfalfa Management program taught applicators about pesticides in the environment and how to prevent off-target damage through drift or leaching. They also learned about alfalfa pests and an integrated pest management approach for each of the common pests seen. During the Livestock Pests, Weed ID and Pesticide program, applicators learned about a few of the most common and problematic external cattle pests and their control, plant identification basics and identification of noxious weeds found in Montana, and about pesticide formulations and surfactants.

Each program throughout the year related to pesticides helped enhance the knowledge of Private Ag Plant Pest license applicators. These programs help ensure applicators can understand and are following the pesticide labels, and using pesticides judiciously in production agriculture, as well as keeping themselves safe while doing so. With changing technology and research, it is important to keep applicators up to date with information so they can continue to do their part in making agriculture sustainable.



Left: Alfalfa field.

Right: Pesticide education class.

Photos by Molly Hammond



Montana Noxious Weed Trust Fund Grant

The Montana Noxious Weed Trust Fund (NWTF) Grant Program was established to help fund noxious weed research, education projects, and cost share noxious weed control for local cooperative working groups within the state of Montana. This spring, a local cooperative in Big Horn County was awarded a two year, NWTF grant worth \$30,000 to help combat a noxious weed invasion of leafy spurge, spotted knapweed, and a few other invasive plants.

Leafy spurge is a difficult weed to control because of its deep roots, reaching as far as 26 feet down in the soil, and its ability to shoot seeds out 15 feet away from the parent plant. The large root system helps leafy spurge plants reserve energy during stressed periods such as drought and/or control measures such as herbicides. Once leafy spurge seedlings are established, they are able to grow rapidly and outcompete most range plants. Leafy spurge is able to establish in a variety of habitats including riparian areas, grasslands, and steep mountain terrain, adding to its ability to propagate successfully.

Because of leafy spurge's ability to establish and outcompete range plants, it can have a large negative effect on range production and therefore livestock and wildlife grazing as well. The financial assistance provided by the Montana NWTF grant, in cooperation with working through the commissioners of Big Horn County, helps the working group producers sustain a control program and be proactive to control leafy spurge infestation for the betterment of their rangeland.



Leafy Spurge. Photo by Molly Hammond



A tributary to the Big Horn River. Photo by Molly Hammond

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