



Welcome to Fallon and Carter Counties

Fallon and Carter Counties are in the farthest-most Southeast corner of Montana bordering North Dakota, South Dakota and Wyoming. These counties encompass 4,960 square miles of short grass prairies, gumbo buttes, and are home to a population of 4,037. Unique to Carter County are the Long Pines in Ekalaka, which is part of the Custer County National Forest and Medicine Rocks State Park, weathered sandstone rock formations that provide a natural home for wildlife and recreation area for people. Cabin Creek in Fallon County is the largest underground natural gas storage system in the United States. Additionally, southeast of Baker there are 13 wind turbines. Agriculture is a valued part of the community and the history of the area. Deer, elk, and antelope hunting bring people from across the county to the area.

MSU Extension is shared between Fallon and Carter Counties and strives to provide the resources on topics ranging from livestock and crop production, home and gardening, and family living to enhance the lifestyle in Montana's short grass country.

Hands to Larger Services

Community service has always been a part of the 4-H program in both Fallon and Carter Counties. During the 2016-2017 4-H year, 4-H Clubs gave back to their communities by cleaning highways, sweeping and cleaning city streets, baking cookies for veterans, and making holiday wreaths for the nursing homes. Additionally, the Carter County 4-H Clubs applied and received a Rural Community Development Grant from the Montana Department of Agriculture and received generous donations from Homemakers Clubs and area businesses. They are using the donations to make improvements to the Carter County Fairgrounds and develop a picnic area in Alzada along Highway 323. This year Carter County 4-H youth used their welding and woodworking project skills to extend the showing, and build benches and tables for the playground at the fairgrounds. The clubs also worked with the County Commissioners to secure a location for the picnic area in Alzada. In April 2018, the group will plant trees at the fairgrounds and the picnic area in Alzada. They will complete the projects by building picnic tables for the picnic area in Alzada.



Carter County 4-H members completed two benches and tables for the Carter County Fairgrounds.
Photo by Kodie Olsen

TOP LEFT: Carter County, by Elin Kittelmann
BOTTOM LEFT: Fallon County, by Maggie Bainter

Building life skills through 4-H youth development

COMPLETE

The Fallon and Carter Counties 4-H Programs aimed to increase the number of projects youth completed and improve adult involvement. Fallon and Carter Counties MSU Extension hosted an informational workshop to present member requirements, adult resources, proper meeting etiquette and general 4-H information. The same information was also shared at club meetings. Fallon County saw a seven percent increase in projects completed and 30 percent increase in the number of project awards given. Carter County saw five percent more projects completed, with a six percent increase in project awards given. Additionally, 4-H adults were interested in being more involved in the program due to a better understanding of the opportunities and their responsibilities.

LEARN

To increase awareness in non-traditional 4-H projects, several project discovery workshops were offered. Workshops focused on robotics, electricity, photography and outdoor cooking. We also hosted workshops on popular projects such as woodworking, sewing, and food and nutrition to provide learning activities and challenges that supplemented 4-H project manuals. By exposing members and non-member to a variety of projects, it encourages youth to participate in 4-H.

4-H youth livestock producers have the important responsibility of producing a safe, wholesome product to sell at the fair. 4-H members are required to attend a Livestock Quality Assurance program every other year while they are enrolled in a livestock project. This year's workshops focused on beef and swine, our two most popular livestock projects. Youth learned about nutrition, how to identify sick animals, and how to market animals and themselves. One hundred percent of 4-H members complete the Livestock Quality Assurance requirement each year.

COMMUNICATE

In 2016, Fallon County 4-H leaders and MSU Extension staff piloted 4-H project interviews at the fair to create an opportunity for youth to develop public speaking skills and share what they learned in their project areas. The 4-H leaders were able to use the experience and feedback from 2016 to develop a quality project interview process for 2017. Fifty-one percent of youth participated in the optional 4-H project interviews at the 2017 fair. Eighty-one interviews were conducted in 21 project areas. Those who participated became eligible to receive an overall project award if they excelled in their interview and received a grand champion ribbon on their exhibit. The youth that participated commented that it was "really fun" and encouraged other members of their club to participate next year.



Fallon County hosted a robotics workshop with Gregg Switzer to encourage members to participate in STEM projects. As a result of the workshop, Fallon County had 66 percent increase in robotics enrollment and we now have two robotics kits for members to use. Photo by Kodie Olsen



Four Food and Nutrition workshops were held, including "Cooking with Claudia." Owner of Claudia's Mesa in Bozeman, Claudia Galofre-Krevat's presentation was focused on learning about lentils, heritage cooking and Montana agriculture. Photo by Kodie Olsen

Business from the Ground Up

The 2017 Soil-to-Skillet Program hosted by the Fallon and Carter Counties MSU Extension office, offered an opportunity to bring a diverse group of people together that have a common interest. Whether it be by using education, food, music, or hobbies, speakers at this year's program had a passion for bringing people together to connect, grow, and be inspired.

Presentations ranged from finding your passion and niche to growing healthy communities, and from starting a small business to creating strong communities. Participants heard successful business owners who created a name for themselves, have promoted agriculture in a unique way, and who have strengthened their local communities.

Participants also partook in four hands-on workshops: making wool-felted dryer balls, how to make butters, how to make pollinator hotels out of logs, and a demonstration on no-till potatoes. They enjoyed a meal prepared using locally-grown beef and vegetables, served with Montana-made foods including Beaver Creek Brewery Beer Bread, Tumblewood tea, Flathead Lake Cheese, and High Five Meats Lamb Sausages.

The program inspired people to support local businesses and energized them to make a positive difference in their communities. As a result of

the program, a local school invited one of the speakers back to talk about decreasing food miles in their school lunch program and providing more horticulture education in classroom. The local museum partnered with another speaker and received a \$4,300 grant and continued discussions for partnering on community events in the future. Others learned how to promote, add value to, and sell their beef locally. The impacts of the program extended far beyond the event.

Drought Management Tools

2017 was one of the driest years in recent years, with less than half the normal precipitation, following a dry 2016. Agriculture producers were faced with difficult management systems and turned towards Fallon and Carter Counties MSU Extension for assistance, whether it was for testing small grains for nitrates, testing livestock water for total dissolved solids and sulfates, or balancing rations using alternative feeds.

NITRATE TESTING OF FORAGES

This year brought an increased concern for nitrate levels in small grains and other crops. High nitrate feeds that are fed to cattle can lead to chronic problems, abortion, or even death. MSU Extension has offered a free qualitative nitrate test for many years. In more recent years, Fallon and Carter Counties MSU Extension has adopted a quantitative



Photos by Elin Kittelmann



test to give producers a more accurate estimate of nitrate levels in their forages. This year, 215 forage samples were tested—100 samples more than normal. Seventy percent of the samples were at 2,500 ppm of nitrates and were considered cautionary. Thirty percent of the samples were 5,000 ppm or higher and recommended to feed at no more than 50% of a ration to prevent health complications in cattle. The ability to give producers quick nitrate results helps with forage harvesting and balancing rations to minimize health problems in livestock.

LIVESTOCK WATER QUALITY TESTING

A quality and safe water supply is essential to the production of healthy livestock. If water is not suitable for consumption, it can adversely affect the growth, reproduction and productivity of livestock. Since 2012, there have been elevated levels of total dissolved solids, specifically sulfates, in livestock water. Some producers have been forced to fence off reservoirs and dams, having to come up with alternative water sources, or are unable to use pastures with water dangerously high in sulfates.

Producers are encouraged to test their water if they are questioning quality. MSU Extension in



Water Testing and Nitrate Testing. Photos by Elin Kittelmann

Fallon and Carter Counties tests for total dissolved solids and sulfates free of charge. In 2017, over 130 water samples were tested. At \$45 for a Livestock Water Analysis done by a lab, we have helped save producers \$5,850, plus the cost of shipping. Additionally, there is economic value in the number of livestock that may have been saved from drinking poor quality water and weight gain on calves that may have been improved if they were put on higher quality water.

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EXTENSION

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