

## Welcome to Broadwater County

MSU Extension in Broadwater County is a three-way partnership between Broadwater County, Montana State University and the United States Department of Agriculture. This partnership provides educational programs in the areas of Agriculture/Natural Resources, 4-H Youth Development, Community Development and Family Consumer Sciences.

Broadwater County remains a fast growing county and currently have a population of about 5,667 (2014 estimate). There is a diverse mix of agricultural land, small acreage subdivisions, rural communities and range or forested land. The County Extension Office provides a unique set of services and educational resources to meet the diverse and changing needs of local clientele.

## Big Changes in the Broadwater County Office

### Virginia Knerr Retires After 27 Years of Service



There is little doubt after 27 years of service as a MSU County Extension Agent in three different counties, Virginia Knerr has left large shoes to fill. Virginia has spent the last 22 years in Broadwater County and retired in February of this year. She said her greatest accomplishments in the position were “growing the 4-H program from 50 members to over 100, community development projects such as card-

board recycling, and grazing management and rangeland monitoring education.” She was instrumental in coordinating the “Bales for Broadwater” effort to help local farmers after the 2000 fire season which caused major grazing losses in the county. Her work and dedication to Extension earned her the Ag Agent of the Year Award in 2001. Virginia is currently working on her next adventure as an Agri-Trend

Coach for Torgersen's in Great Falls. We wish her the best of luck!

### Debbie Ruckel Announces Her Retirement

Debbie Ruckel has been the Administrative Assistant for the Broadwater County Extension Office for over 18 years. She started at only 20 hours a week and has worked her way to 32 hours as the office grew with the county. She has worked closely with the Extension Agent to make the office run efficiently.

She says the biggest change she has seen during her time in the office is the integration of technology. Debbie's last day is November 30th and then she will join her retired husband traveling and enjoying a flexible schedule. She will be missed!



### New Agent Joins Office



On June 1, the Broadwater County Extension Office welcomed Allison Kosto as the new Extension Agent. Allison is a Broadwater County native and graduated from Broadwater High School in 2003.

from Montana State University in agriculture education emphasizing in Extension. She has a diverse background in Extension. She has served as an Extension Agent in 4-H Youth Development in Wyoming and Montana. Most recently, she has worked as a 4-H Volunteer Specialist for the Montana 4-H Center for Youth Development in Bozeman. In 2013, Allison and her husband moved back to the family ranch near Townsend where she continues to help in her free time. She started a week before 4-H Camp and hasn't slowed down since. Welcome Allison!

She received a bachelor and master's degree

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# 4-H Youth Development

## Making a Difference in the Lives of Youth

MSU Extension in Broadwater County strives to make a difference in the lives of youth. In 2014-2015, Extension educators reached about 90 youth through 4-H club programming efforts. Ages range from 6 to 19. More than twenty adults work with the 4-H program to provide hands-on learning experiences for youth. The top 4-H project areas in the county are swine, leadership, shooting sports, beef and robotics. Through these projects and 4-H club work, youth learn essential life skills such as self motivation, critical thinking, concern for others, teamwork and goal setting that better prepare them for their future.



Trenton Braaten shows off his robot at the Broadwater County Fair.

The camp is designed by teen camp counselors for Broadwater, Judith Basin, Golden Valley, Meagher, Musselshell and Wheatland Counties guided by county Extension Agents. They are responsible for planning and implementation of various camp activities, camp themes, teambuilding and recreation. They work with a close group of campers in their cabins and groups. They are given a large amount of responsibility and gain a lot from this experience such as communication, teamwork and leadership skills. Camp allows both campers and counselors to grow as individuals in a safe environment and learn from each other.



4-H Camp Counselors from six counties have fun and explore leadership together.

## Learning Life Skills at 4-H Camp

In early June, Broadwater County youth joined other 4-H members from five other counties for the annual Multi-County 4-H Camp. This year there were 65 campers and counselors and 17 were from Broadwater County. 4-H Camp provides a platform for youth to learn new skills in a fun overnight setting. Campers participated in a variety of different workshops including crafts, science, teambuilding, outdoor adventures, physical fitness and orienteering. Camp creates a safe environment for members to create new friendships, improve self-esteem and develop life skills.



A camper watches in awe at the expanding balloon during a Food Science workshop.

## A Model 4-H Club Meeting

During National 4-H Week in October, the county 4-H program joined together for a multi-club meeting. Led by the 4-H teens, they conducted a model meeting which consisted of three components: business, education and recreation. To help the members better understand parliamentary procedure and how to make a motion during the business component, they practiced the appropriate language through a series of fun motions. For the education component, youth learned about the new online enrollment system, 4HOnline and for recreation the four clubs competed in a 4-H trivia competition. Through a 4-H Club Meeting, youth learn valuable skills about the group decision making process, communication skills and problem solving. These are important skills as they become competent contributing adults in their communities and in their career fields.

# Agriculture/Natural Resources

## Noxious Weed Seed Free Forage Improves Quality Forage

In 2015, over 200 acres of forage in Broadwater County was certified for Noxious Weed Seed Free hay or straw. By participating in the program sponsored by the Montana Department of Agriculture, producers can insure that their forage products are free of noxious weeds. The inspection is done by the county Extension Agent and provides an opportunity for the producer and agent to discuss forage management. This is valuable to purchasers who want to help prevent or slow the spread of noxious weeds in their area. Additionally, anyone who is traveling on state or federal land is required to use only certified forage.

## Pesticide Container Recycling Program Makes an Impact

The Extension Office worked with the County Weed District and Mosquito District to host a recycling day for used pesticide containers. This event provides a safe method for applicators to dispose of containers. Otherwise, they often end up in landfills. Several area agriculture producers participated in the event and 370 lbs. of containers were collected and shredded. Shredded containers are sent to Texas where they will be re-used for a variety of plastic products.



Bruce Seed Farms brought a large truck load to the event.

## Insect Monitoring Provides Valuable Information to Agriculture Producers

The Extension Office participated in crop insect monitoring during the summer and fall to help give producers information to make informed production decisions. During the summer, the Extension Agent monitored for the Orange Blossom Wheat Midge. Native to Europe and Asia, the wheat midge was first found in



Orange Blossom White Midge

Montana in the Flathead Valley in 2006. The insect severely reduces yield and has resulted in an economic loss of \$1.5 million in Flathead County. Since that time, the midge has been working its way across Montana particularly along the hi-line area. Early dedication is key and monitoring makes this possible. Fortunately, Broadwater County escaped another summer free from the midge as none were detected.

During the fall, the Extension Agent monitored for cutworm moths. Three species were monitored: Pale Western, Army and Dingy. Cutworms continue to be a major pest in the state and outbreaks occur when the cutworm populations are high and weather conditions are favorable. Monitoring helps determine when the populations are high and help predict possible outbreaks for the next spring. The traps are used to collect the moths who are laying the eggs in the ground during the fall from late August through October. Eggs will hatch in the fall following rain or snow and overwinter in the soil. They start feeding in late winter or early spring. Monitoring during the fall of 2015 showed high populations of the Army cutworm moth in the county.



Army Cutworm moth

## Accurate Diagnosis Helps Landowners Make Decisions

Accurate diagnosis is essential to help landowners make informed decisions for the management of their property or crop production system. Proper diagnosis can help landowners save money on unnecessary treatment and help create a targeted treatment approach. Throughout the summer and fall, the Extension Agent assisted landowners with the diagnosis process by visiting about 15 homes and assessed localized issues in fields, yards or properties. A majority of the visits were in relation to tree issues. Additionally, 14 samples were submitted to the Schutter Diagnostic Lab. Of these samples, 8 were tree issues, 3 insects, 2 crop and 1 garden sample sent for identification of species or diagnosis an issue. The Extension Office also sent in numerous soil, plant tissue and hay samples for testing to help landowners make informed decisions.

# No-Till Drill Improves Soil Health in Broadwater County

It's amazing what can happen when a group of agriculture producers recognize a need in the county and take action. Earlier in 2015, local producers were visiting and discussed a need to improve soil health in the county through using no-till practices. Many producers were not using this technology for several reasons including the capital cost of buying the equipment and others simply didn't see the value of its use.

After the need was identified, the producers and Extension Agent secured a generous donation, which was given to the Broadwater County Development Corporation to purchase a no-till drill to lease to county residences. After it was purchased, the ownership of the drill was transferred to the county and the use is overseen by the Extension Office.

Using a no-till drill helps minimize soil disruption. By avoiding or minimizing tillage, producers can conserve moisture, allow for more microbial activity and increase organic matter. It can greatly reduce or even eliminate soil erosion. The technique can also increase profits for farmers by requiring less labor and equipment, decrease fertilizer costs and possible higher yields. No-till drills can be used on a variety of cropland including small grains, legumes, hay or pasture grasses or cover crops. The disadvantages of no-till technology include the reliance of herbicides for weed control, special planting equipment, soil compaction in the upper zone,

and possible greater frequency of insect, disease and weed problems.

The drill was available for use by the fall and was used for a total of 32.5 acres in its initial season. Spring planting is more common in the area and we expect it to be used even more next year! A group of three local producers John Ingalls, Cliff Cox and Rick VanDyken work with the Extension Agent to oversee the use and maintenance of the drill. They are also available to assist anyone who needs help with the operation of the drill.



Rick VanDyken (in the tractor) and Cliff Cox (next to drill) prepare to test the drill for the first time.

## Contact Us



### EXTENSION

#### Broadwater County

[www.msuextension.org](http://www.msuextension.org)

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

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