



## Grazing Management Plans for Producers

Grazing management plans assist producers in making important decisions for their livestock operations. When considering these plans, some of the key components are environmental concerns, livestock profitability, optimizing plant health and flexibility.

A well designed plan will improve livestock performance and range health. To meet the goals of both livestock performance and pasture health, the plan may cover multiple years. Grazing management plans also need to be economical. Every improvement needs to meet positive return goals. Grazing schedules should be based on the range environment, not by calendar dates.

Many plans call for a grazing schedule that prevents the spread of noxious weeds, and promotes desirable conditions that facilitate native plants. Introducing new desirable plants (i.e., forage kochia, legumes, and grasses) should prevent the increase and spread of invasive plants.

Grazing management plans need to be flexible with the markets and with fluctuation in forage. This year the Beaverhead County Extension Agent has worked

with local livestock producers to construct individual grazing management plans. These plans should help to improve the efficiency of the ranch and range land, while potentially providing an increase of revenue of thousands of dollars for each ranch.



### 2014 Extension Highlights

- 24,000 pounds of wool from Beaverhead and Madison Counties were delivered to the Center of the Nation Wool to be marketed worldwide, assisting small producers with the marketing of their wool.
- Thirteen new private applicator's licenses were issued in 2014 to individuals wishing to use restricted herbicides to manage noxious weeds in an environmentally safe manner.
- 532 acres of forage crops were inspected and certified weed free. This yielded approximately \$30,000 in additional revenue for hay producers in Beaverhead County.
- Thousands of grain and alfalfa acres were scouted for potential pests and diseases, including root stem maggot, aphids, root rot and alfalfa weevil, helping growers avoid major operation losses.
- Growers saved thousands of dollars by improving their forage production.

# Beaverhead County Extension

## Pesticide Applicators

The 2014 Spring Pesticide Training Tour was brought to Beaverhead County in March as an opportunity for private applicators to obtain recertification credits.

In April, Beaverhead County Extension Services and Beaverhead County Weed District provided several sessions for recertifying applicators. Weed training sessions were held in Lima, Dillon and Divide covering a variety of information, including weed identification, record keeping, rodent control, ATV safety and herbicide updates.

The 2014 Pest Management tour was brought to Beaverhead County and surrounding counties in cooperation with MSU Pesticide Education and MSU Integrated Pest Management. The tour was designed to provide an opportunity for private applicators to obtain recertification credits before the January 1st deadline, while delivering a high quality program related to many disciplines of local interest.



Over 100 applicators from Beaverhead County have received enough credits to renew their license through Montana Department of Agriculture.

## Beaverhead County Extension

- \* Spider & Insect Identification
- \* Weed Identification
- \* Weed Management Guidelines
- \* Plant & Tree Disease Diagnosis
- \* Feed & Soil Analysis
- \* Nitrate Testing
- \* Water Testing
- \* Pesticide Applicator Education & Licensing

## Nitrate Testing

Nitrate nitrogen is a potential toxicity problem in forages, specifically small grains. Small grains, like barley and oats are the most commonly used feeds in Beaverhead County. They are grown and fed to cattle and also regularly used as a rotational crop. Some forage grains have nitrogen in the form of nitrate, which can be toxic to cattle, and therefore be problematic in the cattle enterprise. In 2014, the Beaverhead county Extension agent conducted approximately 45 nitrate quick tests on samples either brought to the office or on site tested. Each test resulted in specific, informed decisions being made for each operation.

Some producers chose to core their bales to determine nitrate levels. Hay samples are submitted from the Extension office to the Agricultural Experimental Analytical Lab in Bozeman.



Producers use the lab for a variety of quantitative tests.

## Livestock Protection

MSU Beaverhead County Extension and the USDA co-sponsored an informative meeting to discuss plans for a USDA Wildlife Services study, investigating 3 different breeds of livestock protection dogs (Kangel, Karakachan, Cao de Gado Transmontano) and their effectiveness in protecting livestock (primarily sheep) from predators including wolves and grizzly bears. In the past 30 years, the U.S. livestock industry has relied primarily on breeds such as Akbash, Great Pyrenees, and Anatolian shepherds. The breeds that will be investigated in this study have been largely absent in the United States. Participants were given an overview of the study protocol to see if they might be interested in participating in the study.

After the initial meeting, USDA Wildlife services and MSU Extension provided further information on the science behind non-lethal methods and the practical application of integrating carnivore damage management strategies to protect livestock. The objective is to be proactive in managing carnivore predation.



## Beaverhead County Continues to Work on Sage Grouse Issues

The Landscape Collaborative Grazing and Greater Sage-Grouse Survival project has started and is moving forward smoothly. The primary strength of this project is the ability to coordinate broad-scale grazing management across mixed ownership, without sacrificing the economic viability of the producers. One of the objectives is to provide information that can be used to manage sage-grouse habitat with grazing livestock. This information will be shared throughout the western United States and has a greater chance of being adopted if livestock producers know that ranchers were equal partners in the project. Producers will increase their knowledge about the direct effects of cattle grazing on sage-grouse habitat, nesting success, and brood survival. The project will be conducted on the ranches and grazing leases of rancher peers, adding credibility to the results. Although this project is conducted in the Centennial Valley of southwestern Montana, the results will be applicable to widespread areas of the state and the entire western United States.

MSU Extension has proposed evaluating high density grazing in the fall to enhance sage-grouse habitat. The local agent is working with researchers to increase forb production. One reason is that sagebrush contains monoterpenes (i.e., phytotoxins) that limit sagebrush intake by grazing animals (Ngugi et al. 1995; Dziba and Provenza 2008). Adjusting the timing of grazing from spring or summer to fall is one way to possibly increase sagebrush consumption by livestock. The economic feasibility of high density cattle grazing to enhance sage-grouse habitat will



also be evaluated. The goal is to collect enough information to formulate cattle grazing guidelines and educate ranchers, agency personnel and Extension agents.



## Beaverhead County 4-H

### Livestock Quality Assurance

Certification in quality assurance is required for 4-H and FFA members exhibiting livestock animals at the Beaverhead County fair. This class encourages creating a health management plan, developing a relationship with a veterinarian, and learning proper veterinary drug usage and administration. In addition, youth learn proper housing and nutrition information to grow a quality retail product for consumption. JP Tanner, Beaverhead County Extension Agent, used a cupcake activity to demonstrate why quality matters to consumers, and the importance of raising a quality meat product. Youth sampled six different cupcakes, each altered in some way, to represent similar problems in a carcass. Each youth was asked to observe the appearance and taste test six different cupcakes. Cupcakes were either normal, overcooked, or altered with salt, chili pepper, food coloring or pudding. Youth left knowing that what looks good on the outside, may not be good on the inside. The increased understanding of why it's important to raise a wholesome product that customers will enjoy.



\* The Beaverhead County 4-H program encompasses 206 youth in 12 clubs. Youth ages 6-19 are encouraged to explore interests and education through positive youth activities. Fifty two adult volunteers deliver 4H programming to the youth.

\* One hundred forty four youth members participated in a market livestock project. They learned the responsibility of having an animal to care for and principles of animal nutrition. Livestock projects are an excellent way to learn about the industry while developing leadership, initiative, self reliance and sportsmanship. This year, Beaverhead County had a total of seven Steer of Merits, twenty certified lamb carcasses and twenty four hogs within the Montana Swine Symbol of Excellence criteria.

\* Beaverhead County 4-H Foundation awarded two \$1500 scholarships to youth wanting to further their education in agriculture. Scholarship recipients were Cory Raffety and Dan Johnson, who both will be majoring in Animal Science.

# Centennial Anniversary for MSU Extension

To celebrate Montana State University Extension's 100th birthday, Beaverhead County hosted a party for the community during the Beaverhead County Fair. 4-H members, parents and community members celebrated with cake and had the opportunity to win drawings held during the fair.



## Contact Us



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