Montana GLCI Quarterly Newsletter

HOLIDAY EDITION

OCT-NOV-DEC 2013

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Lehfeldts Change Grazing Practices to Benefit Cattle, Sage-Grouse

by Byrhonda Lyons, NRCS public affairs specialist

In 1886, Ludwig Lehfeldt began raising sheep on the Lehfeldt Ranch in Lavina, Mont. More than 117 years later, the Lehfeldt family continues to use those Rambouillets sheep genetics their ancestors developed to raise fine-wool Rambouillets.

Bob, Marie, Ben and Jamie Lehfeldt raise about 2,500 Rambouillets ewes, along with 200 black and red Angus commercial cows. The family serves wool and meat markets throughout the nation.

"We want to see it stay in the family," said Bob Lehfeldt, 67, fourth-generation owner and operator of the Lehfeldt ranch.

Looking to be more sustainable and preserve more of their natural resources, the family volunteered to participate in conservation projects through the Sage-Grouse Initiative (SGI), an initiative by the Natural Resources Conservation Service (NRCS) that funds voluntary conservation projects in sage-grouse strongholds across 11 western states.

With a long-term goal in mind, NRCS recommended a prescribed grazing plan for the ranch. Using funding from the Sage-Grouse Initiative, the Lehfeldts were able to make changes on their ranch that benefit sage-grouse habitat and the overall sustainability of the ranch.

They added a large livestock water storage tank, about five water tanks for cows and sheep, marked 11 miles of fence and split two big pastures into "five more manageable pastures," according to Ben Lehfeldt, 38, Bob's son.

"NRCS came in and did a study on how many AUMs (animal unit months) we think we'd pasture," Bob said. Then we were able to establish where to put fence, where to put the water tanks, and how to design them so that they function properly."

According to Ben, before joining the Sage-Grouse Initiative, things on the ranch were a lot different than they are now. While the ranch had water, it was inconsistent.

"We were never sure if we would have water when we needed it," Ben said. "We had few pastures with limited water, and we probably overgrazed. We had a hard time grazing farther way from the water source. Basically, we weren't using our pastures to the best of their ability," Ben said.

And after three years of work and collaboration with NRCS, the family is getting results.

"We see the benefits of being able to rest a pasture," Ben said. "It really helped out those areas that were overgrazed before."

"Establishing these pastures and rotational grazing has improved our bottom line," Bob said. "We've had more grass, so our livestock does better. We're selling a higher weight product. We're also leaving some grass, so we've improved the range condition. It's a plus for both the livestock and the sage-grouse."

While the Lehfeldts were going to eventually make these upgrades to their ranch, the NRCS initiative helped them do it faster.

"The SGI gave us the ability to put it in all at once instead of waiting for 25 years and continuing to hurt the land," Ben said.

He occasionally runs across sage-grouse as he's going through the property. "It's a lot less than my grandpa used to see, for sure," Ben said. "But there's more sagebrush now."

In April, he says the sage-grouse gather at one particular lek—a grouse breeding ground—next to the country road at about 6 o'clock in the morning.

"During that time of year, it's easy to see about 20 or so," Ben said. "They come toward our irrigated ranch, and when it gets dry up there, they come toward the river."

For the Lehfeldts, it was easier for them to sign on to this initiative than any other NRCS programs because it was an immediate time commitment.

"For this contract, NRCS was able to sit down and develop a plan that would help with the overall grazing, and that made it beneficial to do it at our ranch now," Ben said.

And since they were one of the first ranches to get involved in this initiative, everything went pretty quickly.

"NRCS has a good staff that's committed to making things go faster, so it's been a pretty good operation," Ben said.

Although the Lehfeldts' contract is coming to a close, they plan to keep up the prescribed grazing plan.

"We will continue to manage and monitor grazing," Ben added. "All of this should be a long-term improvement for our productivity. We know it's a win for us. We just hope it's a win for the sage-grouse too."

The Lehfeldts run livestock within sage-grouse core area 4, one of the main sage-grouse breeding areas in Montana. Core areas were drawn around habitats with the highest density of breeding birds. Core areas cover only 1/3 of Montana's sage-grouse habitat but account for 75% of all the known breeding sage-grouse.

Governor's Range Tour held in Rosebud County by Heidi Crum, DNRC

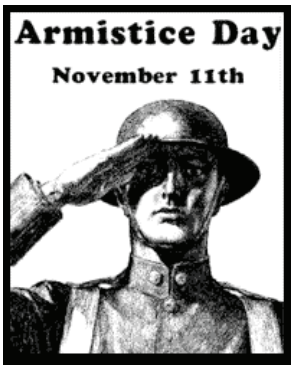
2013 Governor's Range Tour was hosted by the Rosebud Conservation District (RCD) in Forsyth on Sept. 9-10 this year. The first day of the event began with a stop at RCD supervisor, Steve Lackman. Mr. Lackman discussed his experience with using cover crops and the impact this practice has made on his operation. Ann Fisher, NRCS Baker, and Kodie Olsen, Little Beaver Conservation District, brought the rainfall simulator to Lackman's to give a demonstration of the amount of erosion and soil infiltration a single rainfall event can have on various soils. Soil samples from Rosebud County were used in the demonstration and the crowd really learned a lot from Ann and Kodie. Mr. Lackman also discussed his success in Russian olive tree removal on his land along the Yellowstone River. A good rain from the previous day prevented the tour from going to the site.

The second stop of the tour was at Fort Keogh Livestock and Range Research Laboratory. Here the tour was able to listen to three different research projects. PhD Candidate Morgan Russell gave a summary of her research on plant bud banks of native perennial grasses and how fire may affect vegetative reproduction. Dr. Lance Vermeire gave a talk on his fire and grazing research. The tour participants were able to see the vegetative differences in the various fire treatments on the plots of native rangeland. And lastly, Dr. Andy Roberts presented the most recent findings on his long-term research on beef cow longevity and efficiency with limited feeding management. The first day concluded with a banquet at the Forsyth Golf and Country Club. Russell Nemetz was the Master of Ceremonies and Representative Duane Ankney gave the keynote address.

The second day of the tour went to southern Rosebud County and started with the Diamond Ranch. RCD Supervisor Dave Davenport and his son Wes manage the ranch and have been dealing with conifer encroachment and fires.

Wes gave a demonstration of the tree thinning equipment they have been using for the last four years. Tour participants were able to see rangeland that had been thinned, sites that had not been thinned yet and both of those sites that experienced fire and no fire. The vegetative differences in these areas with four different disturbances and all on the same ecological site were very interesting.

The tour continued down Rosebud Creek to view many of the 2012 burns and concluded with a stop at the Deer Medicine Rocks. This is a beautiful and interesting rock formation with many carvings in the sandstone. This site is of cultural importance to the Sioux and Cheyenne tribes. The tour participants enjoyed hearing the landowner Jack Bailey share some stories behind the carvings before returning to Forsyth.



Armistice Day, November 11th

In many parts of the world, people observe two consecutive minutes (moment of silence) at 11:00 a.m. local time as a sign of respect. In the first minute for the roughly 20 million people who died in the war, and in the second minute dedicated to the living, generally understood to be wives, children and families left behind but deeply affected by the conflict.

FACTS ABOUT SUNFLOWERS

The scientific name of sunflowers is Helianthus, Helia for sun and Anthus for flower.

Sunflowers are a great choice for planting to attract birds to your yard.

Sunflowers are one of the fastest growing plants. They can grow 8 to 12 feet tall in rich soil within six months.

Do you know what country grew the tallest sunflower? The Netherlands (25' 5.5" tall) grown in 1986 by M. Heijmf.

It require only 90 to 100 days from planting to maturity.

The former Soviet Union grows the most sunflowers. The sunflower is the national flower of Russia.

The sunflower is native to North America and was used by the Indians for food and oil. Some farmers use it to feed their livestock.

We use sunflower seeds to make oil, bird seed and for snacking. They have lots of calcium and 11 other important minerals. They do have 50% fat, but it is mostly polyunsaturated linoleic acid.

Wild sunflower is highly branched with small heads and small seeds, in contrast to the single-stem and large seed head of domesticated sunflower.

Sunflower heads consist of 1,000 to 2,000 individual flowers joined together by a receptacle base. The large petals around the edge of a sunflower head are individual ray flowers which do not develop into seed.

A well-known sunflower characteristic is that the flowering heads track the sun's movement, a phenomenon known as heliotropism.

The daily orientation of the flower to the sun is a direct result of differential growth of the stem. A plant-growth regulator, or auxin, accumulates on the shaded side of a plant when conditions of unequal light prevail. Because of this accumulation, the darker side grows faster than the sunlit side. Thus, the stem bends toward the sun.

Sunflower seeds are rich in oil, which they store as a source of energy and food. Sunflower seeds are crushed to give us oil. We can use sunflower oil for cooking.

Sunflower plants can be from 3 to 18 feet tall.

One sunflower can have up to 2000 seeds.

There are more than sixty different kinds of sunflowers in the U.S.

Sunflowers originally came from the U.S.

There are two kinds of sunflower seeds- black and stripe

Oil is made from black seeds.

Snacks are made from striped seeds

Sunflower seeds are also used to feed birds.

Sunflowers are the state flower for Kansas.

There is only one flower on each sunflower stem.

Sunflowers are very beautiful flowers and are used for decoration. Sunflower plants can be from 3 to 18 feet tall. One sunflower can have up to 2000 seeds.

Sunflowers are also an important crop. There are more than sixty different kinds of sunflowers growing in the United States, Europe, Japan and Russia. Sunflowers originally came from the United States.

There are two kinds of sunflower seeds. Oil is made from black seeds and snacks are made from striped seeds. Sunflower seeds are also used to feed birds.

Thanksgiving dinners take eighteen hours to prepare. They are consumed in twelve minutes. Half-times take twelve minutes. This is not a coincidence.
- Erma Bombeck

Thank God every day when you get up that you have something to do that day which must be done whether you like it or not. Being forced to work and forced to do your best will breed in you temperance and self-control, diligence and strength of will, cheerfulness and content, and a hundred virtues which the idle will never know.
- Basil Carpenter

Early Weaning

A Good Bet for Producers in Drought Stricken Areas

At the beginning of 2013, cattle ranchers in the Northern Plains were among U.S. agricultural producers still feeling the lingering effects of the sweltering 2012 drought, the worst in half a century. Beef cow numbers were at the lowest in 50 years as U.S. beef producers—severely affected by extended drought—tried to recover from some of the driest months on record.

Across the Northern and Southern Plains, beef producers hit the hardest by drought are threatened by limited forage resources for cows, which restricts calf growth, resulting in lighter calf weaning weights. In addition, drought can decrease cow body weight and condition and weaken immune functions that may affect overall health and reproductive performance.

For decades, scientists at the Agricultural Research Service's Fort Keogh Livestock and Range Research Laboratory (LARRL) in Miles City, Montana, have studied management options that minimize the effects of severe drought on rangeland livestock production. Recently, LARRL animal scientists Richard Waterman, a rangeland nutritionist, and Thomas Geary, a reproductive physiologist, teamed with local ranchers and collaborators at Montana State University (MSU) and the American Simmental Association in Bozeman, Montana, to evaluate early weaning of beef calves and its impact on cow, heifer, and steer performance.

"When a calf is weaned early, all nutrients that normally go to milk production for the calf can be retained by the mother—helping to increase or sustain her body weight and condition," Waterman says. "And proper handling of early-weaned calves can result in greater weight gain than if they had remained with their mothers, especially during drought."

Tallying the Benefits

Scientists confirmed that weaning a calf earlier than normal potentially offers a beneficial production alternative for beef producers when forage is limited.

"With the calf removed, the cow needs less forage to address her needs, which is especially important during drought," Waterman says. "Another issue with drought is the inability to grow enough summer and winter forage for cattle," says rancher and collaborator Dean Peterson, who volunteered his cow/calf herd in Judith Gap, Montana, for the project. "We used to run 500 cows, but now we run 400, because it's about maximizing the efficiency of the forage. We suffered an initial loss of income, but we're doing a better job at taking care of the land and cattle, and our operation is sustainable for the long term."

Research was conducted using calves from both Judith Gap and LARRL. Some calves were weaned early, at 80 days of age, while others were weaned at the more traditional age of 215 days. Cows that weaned a calf early weighed more and were in better body condition at the start of winter. Consequently, the amount of harvested feedstuffs required for cows to maintain satisfactory body weights and condition throughout winter was reduced.

"We learned a lot," Peterson says. "The research confirmed that early weaning is profitable. If you wean calves early, you have fewer problems and can better control the production environment."

"Early weaning during severe droughts will reduce economic losses that would occur when selling lightweight calves," Waterman says. "In order to achieve an economic benefit, a 20-percent increase in reproductive performance in the cow herd would need to be realized, because early-weaned calves must go on feed much sooner."

the cow to focus her resources on body condition and growth. If a cow goes into winter in better condition, maintains that condition, and calves with better condition the next year, she will be much more likely to remain in the herd until maturity."

The objective is to preserve body condition of the cow at a time when forages are limited, says John Paterson, a former MSU animal science professor and Extension Service beef cattle specialist. "We don't want cows to get thin or pull body condition down, because they're lactating, which requires a lot of feed. The way you save that feed is to stop lactation by getting the calf weaned earlier."

Article continued on the next page……..

Early Weaning (Continued)

Steering in the Right Direction
Additional findings showed that early-weaned steers reached maturity sooner than traditionally weaned steers when weight gain, feedlot performance, and carcass traits were measured. Steers had a higher rate of growth between the time of early weaning and the time of normal weaning.
Early-weaned steers typically had poorer USDA yield grades, revealing the importance of identifying them before they enter the feedlot, Waterman says. While producers who market cattle using a quality grid will benefit from having a higher quality carcass going into market, research indicates that management of early-weaned calves can directly affect how they are graded at harvest.
"Carcasses of early-weaned steers may be too fat and receive less-desirable USDA yield grades compared to those of traditionally weaned calves of similar genetics and age when harvested together," Waterman says. "If early-weaned steers are identified before entering the feedlot and harvested at an earlier age, producers have the opportunity to market them at more desirable yield grades with increased quality premiums for those carcasses."
Partnering with the University of Illinois, scientists confirmed this strategy by using ultrasound to measure carcass characteristics. Early-weaned steers were then harvested at a younger age than traditionally weaned animals to maximize their carcass value.

"This research involved cattle that were on Montana ranches, so it was the real deal," Paterson says. "When you wean earlier and get those cattle into the feedlot, the quality and yield are very nice. A lot of ranchers have figured that out, because it's an economic issue as much as anything else."
Peterson is among those ranchers. "We went far enough into the study to get the benefits on the other end," he says. "We had better cattle with early weaning because it helped our quality too. And because we retained ownership of all our steers and heifers until slaughter, we were able to realize those premiums. We had better carcasses when we weaned earlier."—By **Sandra Avant,** Agricultural Research Service Information Staff.

This research is part of Food Animal Production, an ARS national program (#101) described at www.nps.ars.usda.gov. Richard Waterman is with the USDA-ARS Fort Keogh Livestock and Range Research Laboratory, 243 Fort Keogh Rd., Miles City, MT 59301-4016; (406) 874-8208.

"Early Weaning: A Good Bet for Beef Producers in Drought-Stricken Areas" was published in the **August 2013** issue of *Agricultural Research* magazine.

Soil Health—Experts talk soil health - Newsletter articles courtesy of NRCS

This series of short, but informative newsletter articles featuring experts from across the country, will help your readers better understand the basics and benefits of improving the health of their soil. Feel free to download the files, share them on your web site or in your newsletters – and help "Unlock the Secrets in the Soil." To check out this series of newsletter articles go to the NRCS website:

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/health/?cid=stelprdb1143274

#1: Discover the cover: Farmers realize benefits, challenges of soil-improving cover crops
#2: When it comes to water, cover crops give more than they take, expert says
#3: No-till, cover crops go hand-in-hand to build healthy soils, expert says
#4: For maximum benefit, mix it up, cover crop expert recommends
#5: Many considerations 'in the mix' when choosing cover crops, expert says
#6: Different cover crops yield different benefits, expert says
#7: Expert: Cover crops key in preventing yield losses when converting to no-till
#8: Fence rows provide insights into restoring healthy soils, expert says
#9: 'Home-grown innovation' needed for wide-spread cover crop use, expert says
#10: Radishes offer advantages in cover crop mix, expert says
#11: Expert urges farmers to ask—and answer—five questions before cover cropping

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The Montana Grazing Lands Conservation Initiative would like to wish you and yours a Merry Christmas and a Happy New Year! Thanks for your support and commitment over the past year! We look forward to working with our partner organizations in 2014! May the spirit of the holiday season be with you.

The world's largest snowflake recorded fell at Fort Keogh, Montana on January 28, 1887. It was reportedly 38 cm wide and 20 cm thick.

Calendar of Events

October

- Montana 2013 Young Ag Leadership Conference, October 11-13, Fairmont Hot Springs Resort
- GLCI Conference Call, October 23

November

- Montana Farm Bureau Federation, Convention, November 10-13, Billings Hotel and Convention Center, Billings
- Montana Association of Conservation Districts, November 19-21, Great Falls

December

- Montana Woolgrowers Association, December 6-7, Holiday Inn Grand, Billings
- Montana Stockgrowers Association and Montana Cattle Women Annual Convention, December 12-14, Holiday Inn Grand, Billings

And I heard him exclaim as he rode out of sight;

"Merry Christmas to all and to all a Good Night!"