



# Flathead Reservation Extension Newsletter

## Front Page News: Read All About It

### Your Thoughts and Opinions are Important!



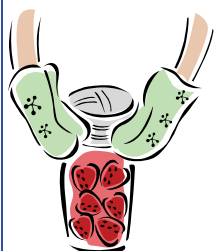
The CSKT Tribal Lands Department, Farm Service Agency, and the Flathead Reservation Extension Office (FREO) have collaborated to create an Extension survey. This survey will be available soon. Both the Tribal Lands Department and FREO would like to ask that you fill out and return the survey. This survey will help guide extension programming on the Flathead Reservation.

### 4-H Afterschool Programs Have Launched!

FREO offers Afterschool 4H programs in schools around the Flathead Reservation. Programs have been offered in St. Ignatius, Pablo, Polson, and Dayton. Projects include agriculture food and fiber, exploring the insect world, forestry, and many other fun topics. If you or someone you know is interested in volunteering to help with this unique and educational program please call our office to learn more.



### MSU Master Food Preserver



After 25 years, the MSU Master Food Preserver (MFP) program has returned! With the increase in gardening comes an increase in need to preserve a garden's bounty of fresh fruits and vegetables. The first MFP students recently completed a five week course on safe food preservation. Courses were seven hours each and all sessions included classroom lecture and hands-on lab. Students learned about food safety and prevention of food borne illnesses. Topics included how to preserve foods through pressure canning low acid foods, hot water bath canning for high acid food, drying, freezing, pickling, and preparing relishes and salsas. To

earn the title of Master Food Preserver each student must demonstrate competence and understanding of the curriculum and complete an exam. Thereafter each student completes 40 hours of community service. Students are meeting monthly to preserve seasonal fruits, vegetables and meat products. Instructors for the Master Food Preserver program are Rene Kittle, Flathead Reservation Extension and Nori Pearce, Lake County Extension.

If you are interested in learning more about the Master Food Preserver program or would like to take a canning class please call the Flathead Reservation Extension Office for more details.

### The 30th Annual Young Ag Couple Conference is Coming!

The Montana Department of Agriculture will host the 30th Annual Young Ag Couples Conference on January 13-16, 2010, at the Red Lion Colonial Hotel in Helena, Montana. Anyone who would like to nominate a couple please contact the Flathead Reservation Extension Office at (406) 675-2700 ext 1247 or send an email to [flatheadreservation@montana.edu](mailto:flatheadreservation@montana.edu).



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## Direct and Indirect Effects of Protein Supplementation Strategies

Data suggests that dormant winter native range is deficient in protein for spring-calving cows. In a recent study (2009 Nebraska Beef Report, pp. 5), spring-calving cows (3 to 5 years of age) were either supplemented a pound of a 28% crude protein cube daily or not supplemented protein while grazing dormant native range and their performance was evaluated. After winter grazing, supplemented and non-supplemented cows were managed together. Cow body weight and cow body condition pre-calving was greater for cows that were supplemented. Those differences were not seen prior to the start of the breeding season nor at weaning. Pregnancy rate was not different between the supplemented and non-supplemented groups and were above 92%. Calf birth weight was not different between the two groups. However, calves from supplemented dams were heavier at an interim weigh date in the spring (before the start of the breeding season for the cows) and at weaning despite the fact that there was no difference in milk production of dams that were either supplemented or not supplemented prior to calving. This might suggest that calves from dams that were supplemented precalving may be more thrifty and their immune system status was better able to ward off sickness; therefore better gains. However, there was no indication of any differences in calf sickness between calves from dam supplementation or non-supplemented groups. It might also suggest that calves from dams that were supplemented are more efficient at using feeds. Another suggestion might be, although milk production was not different, it might suggest that there are milk quality differences or possibly the quality of the colostrum differed in supplemented compared to non-supplemented dams. As interesting, statically more cows that were supplemented (83%) while grazing dormant native range precalving calved the first 21 days of the calving season compared to non-supplemented (62%). Cows that calve early in the calving season wean calves that are heavier and should generate more dollars at weaning.

In the same study reported above, a similar group of spring-calving cows were supplemented the same protein cube while grazing corn stalk residue and there was a group of cows grazing corn stalk residues that was not supplemented.

After corn stalk grazing, cows were managed together. Pre-calving weight and body condition were statistically different between the two groups in favor of the supplemented group of cows. In the corn stalk grazing part of the study, the difference between the supplemented and non-supplemented groups was not the same magnitude as that observed in the cows grazing dormant native range. Precalving body condition score for cows grazing corn stalks and supplemented was 5.3 and that for non-supplemented cows was 5.2, although these numbers are statically different, they are likely not different biologically, meaning it would be difficult to say that any performance difference between the two groups is a result of differences in body condition; nor would you expect any differences in performance due to differences in body condition of the two groups. There was no difference in calf birth or weaning weight. Calving date, percentage of the cows calving the first 21 days of the calving season or milk production was not different. Pregnancy rate was high for both groups (97% for supplemented and 95% for non-supplemented cows).

The fetal programming hypothesis states postnatal growth and physiology can be influenced by stimulus experienced in utero. Can the performance of calves be influenced by nutrition of the dam during late gestation? The study described above evaluated steer and heifer performance from supplemented and non-supplemented dams that were either grazing dormant range or corn stalk residue. Heifers from dams that grazed corn residue tended to weigh more pre-breeding compared to heifers from dams that grazed native range whether they were supplemented or not. Heifers from dams that were supplemented while grazing range or crop residue were younger when they reached puberty. Pregnancy rate tended to be greater for heifers from dams that were supplemented protein precalving compared to heifers whom dams were not supplemented. The differences in reproductive performance for heifers was more pronounced if their dams grazed native range compared to corn stalks. Pregnancy rate for heifers from dams that were supplemented and grazed range was 90% compared to 77% for heifers whom dams were not supplemented. Pregnancy rates for heifers from dams that were grazing corn stalks and supplemented was 88% compared to 83% for heifers whom dams were not supplemented.

By Dr. Rick Rasby, Professor of Animal Science, University of Nebraska. For a complete copy of this research go to: <http://www.beefmagazine.com/nutrition/1029-protein-supplementation/index.html>.



### Have Your Hay Tested and Get a Better Understanding of Your Forage Quality

Since hay and other stored forages are our major winter feeds, now is the time to have your hay analyzed to develop a good winter feed program. Depending on your location and winter conditions, you will need a one to four-month supply of hay per cow. As a general rule of thumb, Montana ranchers have historically stored about one ton of hay per cow (this guideline was based on roughly 30 pounds of hay per cow for 60 to 70 days). This guideline is fairly useful, however it does not allow for larger cows, poor quality roughages, extremely cold weather, or the possibility of feeding hay into May.

Producers should routinely get a representative hay analysis of all roughage sources they feed. Hay inspection and forage analyses help assure buyers of decent hay quality. Hay is fed in large quantities, and thorough forage testing is the first step to design an economical winter feeding strategy. Hay is the bulk package to deliver energy, protein, vitamins and minerals to cattle, sheep and horses. Based on the wide variety and condition of hay and straw that will be fed in Montana this winter, compounded with variable livestock and environmental conditions, hay testing is strongly encouraged.

Call Rene at the Flathead Reservation Extension Office (FREO) to help get a representative sample of your hay. Every hay "lot" should be sampled separately. A hay lot is defined as hay taken from the same field and cut, harvested within 48 hours, and stored under the same conditions. Samples are best obtained using a hay probe to randomly sample bales within a stack. The probe tip should be sharp, and it should be inserted 12 to 18 inches into bales. Square bales should be sampled near the center of their ends, and round bales should be sampled on round edges. A minimum of 20 random cores should be collected at different heights in a haystack and composited. Every effort should be made to obtain a random and representative sample, otherwise the forage quality analysis may not be representative of what is actually fed. The composite sample from each hay lot (will be ½ to ¾ pound) should be mixed, sealed in plastic bags, labeled and submitted to a forage testing laboratory. FREO will



help submit samples. Once the lab receives the sample results are generally available within 3-4 business days.

Hay quality includes palatability, digestibility, intake, nutrient content and anti-quality factors, but some of these characteristics are not measured by lab tests. For a winter feeding program in Montana, the primary forage quality tests to request are: crude protein (CP), acid detergent fiber (ADF) and neutral detergent fiber (NDF). Laboratories use a variety of accepted testing procedures, and the cost for analysis of CP, ADF and NDF ranges. Other useful analyses for provided in a standard lab test include calcium, phosphorus, potassium and magnesium. Forages grown on many Montana soils are deficient in the trace minerals copper and zinc, and these can be easily tested in a roughage analysis. There are two other current anti-quality issues in Montana roughages — **winter tetany** and **nitrate toxicity**. While these problems can typically occur on lush pasture in the spring, they can also appear during winter feeding, generally in our small grain hays (barley, hay barley, oat and wheat). Tetany and nitrate toxicity are of particular concern during late gestation due to stress and high roughage intake. "Grass" or "winter" tetany is simply due to a *magnesium deficiency*, and is related to the ratio of potassium (K) vs. the sum of magnesium (Mg) and calcium (Ca). The potential tetany risk of a forage can easily be estimated from the K, Mg and Ca concentrations in a standard forage analysis. All cereal hay and straw should be tested for nitrate concentration by a laboratory prior to feeding. Once the lab results return FREO can help you interpret the results from the lab.

After receiving the forage analyses back from the laboratory, it is now time to use the information to balance rations to provide desired levels of productivity (late gestation, early lactation, replacement heifers etc.). The extension agents in Montana have computer software in their offices which can be used to balance rations for cows and replacement heifers.

Call FREO today to get your forage sampled.

### 10 Winter-Feeding Tips

Want some "hot" advice on ways to cheapen cow-herd rations as fall and winter approach? After visiting with John Paterson, Montana State University Extension beef specialist, and ranchers from diverse locations, here's a top-10 list of



cost-saving tips adaptable to about any winter grazing situation and geographic location.

1. **Balance rations** Balance rations to be "best-cost" rations, realizing that they may not be least-cost rations, Paterson says. "Understand the nutrient requirements for a weight or age class, or stage of production, of the cow, calf or bull," Paterson says.
2. **Flexibility** Johnny Weese's key to keeping cow wintering costs down is flexibility. The Fisher, WV, rancher rents dormant fescue pasture when he needs some low-cost winter grazing. He goes in behind yearlings after the first good frost and gets 60 days of good pasture on dormant fescue.
3. **Standing forage** One of the best ways to cheapen a winter ration is to have enough standing forage to keep the cows out grazing as long as possible, aided by a small amount of high-protein supplement, says Gene Vieh, Kaycee, WY. "The higher the protein amount in the supplement, the fewer trips you'll have to make to the pasture," he says. "Those extra trips with the feed truck cost money."
4. **Health and nutrition** programs depend on each other. When developing a year-round nutrition program, Paterson wants the local veterinarian to be a part of the management team to cover all the bases. This includes vaccinations, parasite control, biosecurity measures and recordkeeping. Cattle performance will suffer if either nutrition or the health programs is deficient. Not providing an adequate amount of any nutrient (water, energy, protein, vitamins and minerals) may result in compromised immune function, reduced conception rates and lighter calves.
5. **Forage analysis** Paterson always recommends obtaining a forage analysis of hay supplies well in advance of winterfeeding. "Then, a rancher knows how much energy and protein is available," Paterson says.
6. **Body condition score** Split the cowherd into groups based on body condition score (BCS). Paterson likes to see the herd split into groups of animals with good BCS (greater than 5) and those with poorer BCS (less than 5). "Why feed the entire herd an expensive ration when only the thin cows need it?" he asks.
7. **Wheat or barley straw** Paterson likes to use wheat or barley straw in the rations he formulates. He does this to cheapen the ration, prevent over-feeding of nutrients, and control rates of gain for cows and even heifers.
8. **Alternative feeds** Determine if feed or food-industry byproducts can be used as supplements? wheat midds, distiller's grains, peas, carrots, corn gluten feed and even whole potatoes.
9. **Weight** Know the weight of your cows using a

scale. Paterson says a rancher who underestimates average cow weight by up to 200 lbs. could see a 4- to 5-lb. difference in dry matter consumption each day.

10. **Feed waste** Minimize feed waste. Research shows that the method of feeding hay can have a dramatic influence on hay waste.

*This article was written by Clint Peck, Director of Montana Beef Quality Assurance Program and was published in the March 2007 edition of Beef Magazine. For more information regarding Winter Feeding Tips you can contact Clint Peck at 406-671-0851 or John Paterson at 406-581-3492.*

## Weed Update

### Lambs learn to eat Dalmatian toadflax by Watching Mom at Pasture Potluck



Imagine a lamb at its first pasture potluck, and you'll see how Montana lambs are learning to eat a noxious weed called Dalmatian toadflax. The lamb fills her plate with familiar grasses and weeds, then notices her mom and aunts loading up on a tall plant that's pretty enough to place in a vase. Emboldened by her elders, the lamb nibbles a yellow blossom and decides she likes it. She cleans her plate and returns again and again to the all-you-can-eat buffet until it's time to go home. That's the scenario Montana State University researchers are seeing after trucking ewes, lambs and goats to Montana pastures infested with Dalmatian toadflax. The lambs won't touch Dalmatian toadflax on their own, but they will if they see their mothers or goats eating it. And once they try it, they like it.

It does take a training period for sheep or goats to figure out that it's an edible plant and one that's very desirable. Once the sheep and goats start to consume it, they really, really favor the plant. The Montana Sheep Institute, has sent sheep and goats to private ranches, divided the animals into groups and watched them graze. It appears, the researchers said, that the lambs go through a learning process when it comes to eating Dalmatian toadflax. Sheep and goats have eaten weeds for a long time, but today's ranchers want to know the exact steps and methods they should take to produce certain results.

# November is American Diabetes Month®

The Montana Sheep Institute believes that ranchers can be very successful in controlling the noxious weed, with sheep and goats or sheep that have been trained. It's a question of understanding that learning behavior a little bit more. Some herds are not successful, and we need to understand why. Why some sheep love Dalmatian toadflax and others don't is one of the questions that the institute continues to investigate. Over all researches have been please with the performance of the flocks. The institute sent 1,000 sheep and goats to graze more than 2,000 acres, and they were much more effective than chemicals. One rancher who participated in the study said that "It looked really good. When toadflax was gone, they worked on the knapweed."



Photo courtesy of the Montana Sheep Institute

This is an excerpt taken from an article written by Evelyn Boswell, MSU News Service. For a copy of the complete article go to: <http://www.montana.edu/cpa/news/nwview.php?article=5365>.

## Community

### Holidays with Diabetes: Maximizing Enjoyment, Minimizing Stress

November is American Diabetes Month®, an important time to take a look at the concerns - and some good news - about diabetes. The burden of diabetes in Montana is substantial: Almost 48,000 adults (6.4 percent of residents) have diagnosed diabetes, a rate that has more than doubled in the past 20 years. The rate among American Indians is 2 ½ times higher than the general population and has also increased dramatically. The vast majority of Montanans with diabetes (90-95%) have type 2, sometimes called a "lifestyle disease," since it is largely preventable with nutrition and physical activity. The Montana Diabetes Project has funded four effective prevention programs in Billings, Helena, Miles City, and Missoula - and has plans to expand into more communities. Montanans can read about these programs and download delicious recipes on their blog ([www.mtdpp.blogspot.com/](http://www.mtdpp.blogspot.com/)).

There are now 23 nationally-recognized diabetes education programs and 85 Certified Diabetes Educators (CDE) across the state. There is also plenty of good news about managing diabetes during the holidays. Many people think that healthy holiday eating is all about deprivation and avoiding the luscious once-a-year goodies that seem to be everywhere. Nothing could be farther from the truth. Here are some tried-and-true tips for folks with

diabetes - and anyone else who wants to feel better this season - on ways to enjoy healthy holidays without stress or guilt:

- **PLAN AHEAD:** Every expert on the planet preaches the benefits of making smart choices by planning. During hectic holidays, writing down plans can actually help reduce stress. Write times for walking or other activities into your daily calendar. Write out a few simple menus for busy evenings and choose some new, lighter recipes for potluck events.

- **EAT SMART:** Enjoy a nutrient-rich meal or snack first, then slowly savor a moderate portion of your favorite holiday food. For smart diabetes advice and recipes, go to <http://tracker.diabetes.org/myfoodadvisor.html>.

- **PLAY HARD:** Physical activity is essential for maintaining normal blood sugar levels. Being active is also an important key to holiday stress relief, so have fun by being active. Take a walk with a dear friend or dance with someone you love.

- **REST WELL:** Too little sleep increases underlying stresses and also makes it harder to maintain a healthy weight. Make a good night's sleep a priority. Refresh your holiday spirit and improve your mood with a quick catnap during the day.

"Lifelong health is all about small steps - making smart food and fitness choices every day."

This has been an excerpt from Eat Right Montana. Past and current issues of Eat Right Montana's monthly packets can be downloaded for free at

[www.eatrightmontana.org/eatrighthealthyfamilies.htm](http://www.eatrightmontana.org/eatrighthealthyfamilies.htm)

### Turkey Salsa Meatloaf by Sarah Tackett

In the GMA **Cut the Calories Cook-Off Contest** 1999 Servings Makes 8 servings.

Calories 124/Fat 7 grams.

#### Ingredients

- 1 tablespoon butter
- 2 tablespoons olive oil
- 1 small carrot peeled and finely chopped
- 1 small onion, finely chopped
- 1 lb extra lean ground white meat turkey
- 1 teaspoon each of salt and pepper
- 1 egg
- 1 tablespoon fresh flat parsley
- 1 celery stalk, finely chopped
- 2 cups rolled oats
- 1/2 cup



#### Directions:

1. Heat butter and olive oil in skillet. Add chopped carrots, onion and celery and sauté until golden. In a large bowl mix turkey, salsa, and parsley. Add the sauté vegetables and salsa and mix thoroughly. Gradually add in the rolled oats until desired consistency.

2. Bake in 375 degree oven for 30 minutes then add additional salsa on top and continue baking for an additional 15-20 minutes.



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**Making a Difference on the Flathead Indian Reservation**

MSU Extension is an equal opportunity/affirmative action provider of educational outreach.

November 2009						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 Daylight Savings Time Ends	2	3 Election Day	4	5	6	7
8	9	10	11 Veteran's Day FREO Closed	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26 Thanksgiving Day FREO Closed	27 Holiday FREO Closed	28
29	30					

**MSU's Resource on the Flathead Indian Reservation**