

Twin Falls County

University of Idaho, U.S. Department of Agriculture, and Idaho counties cooperating.

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The Difficulty of Matching Range Nutrient Availability to Cow Requirements

Tianna Fife, Extension Educator

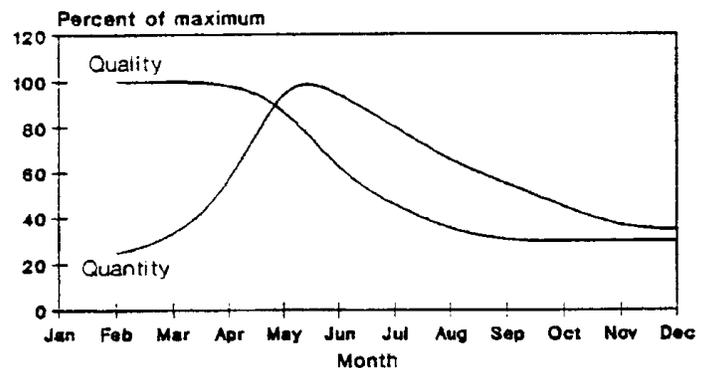
Feeding livestock is as much, if not more, of an art as it is a science. There is considerable variability within the many factors that must be considered when matching the nutrient requirements of animals to the available nutrients provided by the range. Let's look at both sides of this equation and see why it can be such a challenging task.

On the animal side of the equation, the requirements change with the size of the animal, environmental conditions, the animal's stage and level of production (growth, gestation, lactation, etc.), and any overlap of production. An example of increased requirements due to an overlap of production would be a bred heifer, or one that is lactating. She is still growing, but also has requirements for the growing fetus or lactation. The National Research Council (NRC) publishes the maintenance and production requirements for cattle at various weights, stages, and levels of production.

Looking at the nutrient availability side of the equation – it is difficult to predict the nutrient content of forages on the range. Nutrient availability is determined by plant community composition, stage of plant growth, and range productivity. This means nutrient availability varies throughout the year, from one year to the next, and by site. Nutrient quality and quantity is generally higher earlier in the year (spring or early summer, depending on elevation and location). Just before reaching peak

quantity, quality begins to decline (Figure 1). In a publication by Thomas Bedell (Oregon State University), he noted that protein levels in grasses were above 20% in the spring, but dropped to 5% or less by the end of the season. However, temperature and precipitation variations from year to year can alter the timing of growth and the availability of nutrients. This demonstrates that there can be as much variability between species of plants in the same year as there is variation from year to year.

Figure 1. Forage Quantity and Quality Relationship



Cow-Calf Management Guide and Cattle Producer's Library. CL 546.

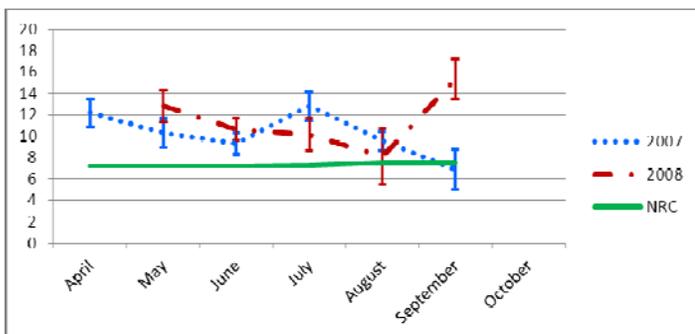
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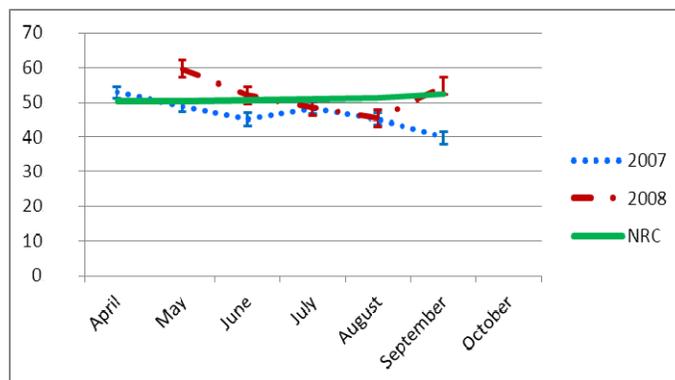
In a two-year study conducted in southwestern Idaho, researchers found energy to be deficient before protein. In this study, nutritional analysis was run on clipped forage samples and also on grab samples taken from the rumen of several fistulated cows. These research cattle followed a typical high-desert range grazing program. They started the season in lower elevation pastures and were moved to higher elevation pastures as the grazing season progressed. The results for rumen crude protein (CP) and rumen total digestible nutrients (TDN) are shown in Figures 2 and 3, respectively. Grazing higher elevation pastures later in the grazing season provides a nutritional advantage due to improved and greater forage supply that can better meet the nutritional needs of the cow. It is also important to note the variation between the two years and the nutrient content in the forage. The amount and timing of precipitation varied between the two years and is the reason behind the differences in nutrient content.

Figure 2. Percent Rumen Crude Protein (CP)



Wilson, R.L., K.S. Jensen, S.E. Etter and J.K. Ahola. University of Idaho. In Press 2011.

Figure 3. Percent Rumen Total Digestible Nutrients (TDN)



Wilson, R.L., K.S. Jensen, S.E. Etter and J.K. Ahola. University of Idaho. In Press 2011.

As suggested, increasing elevation throughout the grazing season may help in matching the available nutrient content with the requirements of the cattle. However, there are also a number of other management practices that can be implemented to help with this balancing act. These include practices such as grazing different locations, time of calving, time of weaning, and supplementation. Just as every operation is different, every year is different as well. The bottom line is that because of this variability, there is no recipe that if followed exactly will produce the same results.

Many questions come into the office every year about supplementation. Supplementation should be used to cover the gap between the nutrients provided by the forage and the nutrient requirements of the cattle. Therefore, one must know what they have, what they need, and the most economical way to provide those nutrients. Mineral supplements are commonly utilized along with supplemental energy and protein at certain times of the year. Refer back to Figures 2 and 3 and when protein and energy supplementation were required each year. Minerals have not been discussed much here, but they too can vary a great deal throughout the year, from year to year, and are site specific. It is important to know and understand deficiencies, toxicities, and mineral interaction when supplementing. The take-home message

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Twin Falls County

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The Difficulty of Matching Range Nutrient Availability to Cow Requirements

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is that the site-specific and year-specific analysis is needed to properly match range nutrient availability with cow requirements.

If you have any questions or comments, please feel free to contact me at 208-734-9590, ext. 26, tiannaf@uidaho.edu, or 246 Third Ave. E. in Twin Falls.

References:

Bedell, T.E. Range Nutrition in Relation to Management. Cow-Calf Management Guide and Cattle Producer's Library. CL 545.

Gibson, C.C. Cattle Management in the High Desert Range Environment. Cow-Calf Guide and Cattle Producer's Library. CL 546.

Wilson, R.L., K.S. Jensen, S.E. Etter, and J.K. Ahola. Variation in Nutritive Quality and Mineral Content of Grazed and Clipped Forage from Native Range in Southwest Idaho. Professional Animal Scientist-In Press.

Smart Shopping for Veggies and Fruits

Cammie Jayo, Extension Educator

Here are 10 tips for affordable vegetables and fruits.

It is possible to fit vegetables and fruits into any budget. Making nutritious choices does not have to hurt your wallet. Getting enough of these foods promotes health and can reduce your risk of certain diseases. There are many low-cost ways to meet your fruit and vegetable needs.

1. Celebrate the season

Use fresh vegetables and fruits that are in season. They are easy to get, have more flavor and are usually less expensive. Your local farmer's market is a great source of seasonal produce.

2. Why pay full price?

Check the local newspaper, online, and at the store for sales, coupons, and specials that will cut food costs. Often, you can get more for less by visiting larger grocery stores (discount grocers if available).

3. Stick to your list

Plan out your meals ahead of time and make a grocery list. You will save money by buying only what you need. Don't shop when you're hungry. Shopping after eating will make it easier to pass on the tempting snack foods. You'll have more of your food budget for vegetables and fruits.

4. Try canned or frozen

Compare the price and the number of servings from fresh, canned, and frozen forms of the same veggie or fruit. Canned and frozen items may be less expensive than fresh. For canned items, choose fruit canned in 100% fruit juice and vegetables with "low sodium" or "no salt added" on the label.

5. Buy small amounts frequently

Some fresh vegetables and fruits don't last long. Buy small amounts more often to ensure you can eat the foods without throwing any away.

6. Buy in bulk when items are on sale

For fresh vegetables or fruits you use often, a large size bag is the better buy. Canned or frozen fruits or vegetables can be bought in large quantities when they are on sale, since they last much longer.

7. Store brands = savings

Opt for store brands when possible. You will get the same or similar product for a cheaper price. If your grocery store has a membership card, sign up for even more savings.

8. Keep it simple

Buy vegetables and fruits in their simplest form. Pre-cut, pre-washed, ready-to-eat, and processed foods are convenient, but often cost much more than when purchased in their basic forms.

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Smart Shopping for Veggies and Fruits

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9. Plant your own

Start a garden—in the yard or in a pot on the deck—for fresh, inexpensive, flavorful additions to meals. Herbs, cucumbers, peppers, or tomatoes are good options for beginners. Browse through a local library or online for more information on starting a garden.

10. Plan and cook smart

Prepare and freeze vegetable soups, stews, or other dishes in advance. This saves time and money. Add leftover vegetables to casseroles or blend them to make soup. Overripe fruit is great for smoothies or baking.

Source: USDA Center for Nutrition Policy and Promotion
[Go to www.ChooseMyPlate.gov](http://www.ChooseMyPlate.gov) for more information.

Rock Chuck Control Options

Steve Hines, Extension Educator

Every spring and summer I get many calls about rock chucks and how to get rid of them. I wish I had a silver bullet for rock chuck control because I would surely be wealthy by now. In this article I will discuss a little about the life cycle of rock chucks and then a few control measures. The rock chuck is properly known as the Yellow Bellied Marmot. They are large burrowing rodents with grizzled brown fur, a yellow belly, and white around the mouth and eyes. They have small round ears, a short white muzzle, and a black nose. The body is heavy with short legs and a reddish brown tail. Adult rock chucks will weigh between 3.5 and 11 pounds. Some people confuse rock chucks and badgers but they really don't resemble each other and when confronted rock chucks run to their den while badgers may not always back off and they are definitely more aggressive. Be sure of the pest you have before deciding on control measures. Rock chucks range from high up in the mountains to down in the lower elevations of the desert. In the Magic Valley rock chucks like areas where they can hide and burrow near rock piles close to a food source. Rock chucks are herbivores meaning they prefer to eat plant material. Alfalfa, corn, beans, grain, gardens, flowers, and just about everything grown in the valley is a food source for them. Even moderate populations can cause significant damage by feeding on crops. They can

also compromise the structure of canals and ditches by their burrowing activity, destroy building foundations, and spread fleas to domestic pets.

Rock chucks hibernate from September to May, although I have seen them every month of the year here in the Magic Valley. Their hibernation burrows are from 5-7 yards deep and their regular burrows are about 1 yard deep. Rock chucks have a harem-polygynous social system where a single male will defend and mate with one or more females. Females will have 2-5 pups in May or June depending on elevation. About half will survive the first year and females will breed when they are 2 years old. The young males are pushed out of the family and move on to form their own breeding colony. They tend to inhabit abandoned burrows rather than dig their own when they are young.

Control of rock chucks can be frustrating. There are several products that are approved for use on rock chucks in Idaho. Most of the products, such as aluminum phosphide and zinc phosphide, are restricted use and require you to have an Idaho Pesticide Applicator License. If you have the license you can obtain these products through your normal vendors or you can obtain zinc phosphide concentrate through the USDA-APHIS Supply Depot by first calling your county extension educator. The gas cartridges can be effective if you can get all the burrow openings plugged. That is difficult in a rock pile. Zinc Phosphide dust is effective if you can get the rock chucks to eat the bait before applying the product. Grain baits, and rat and mouse poisons are not effective and they are not labeled for rock chucks. It is imperative that you read and follow label directions for the site and pest to be controlled. The following is a list of approved products for use in Idaho for 2011. The numbers at the end are the EPA registration number of the product.

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Picture Source: Google – Rock Chuck

Rock Chuck Control Options

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- DEGESCH PHOSTOXIN PELLETS -72959-5
- DEGESCH PHOSTOXIN TABLETS-R -72959-4
- DETIA PHOS PELLETS- 72959-5
- DETIA PHOS TABLETS-72959-4
- FUMITOXIN PELLETS -72959-2
- FUMITOXIN TABLETS -72959-1
- GAS CARTRIDGE FOR BURROWING ANIMALS - 56228-2
- GASTOXIN FUMIGATION PELLETS -43743-2
- GASTOXIN FUMIGATION TABLETS -43743-1
- KILLZ-ALL 60 ALUMINUM PHOSPHIDE FUMIGANT PELLETS -81951-2
- KILLZ-ALL 60 ALUMINUM PHOSPHIDE FUMIGANT TABLETS -81951-1
- PHOSFUME FUMIGATION PELLETS -70506-14-1015
- PHOSFUME FUMIGATION TABLETS -70506-13-1015
- WEEVIL-CIDE GAS BAGS -70506-15
- WEEVIL-CIDE PELLETS-70506-14
- WEEVIL-CIDE TABLETS-70506-13
- ZINC PHOSPHIDE CONCENTRATE FOR RODENT AND LAGOMORPH CONTROL -56228-6

It is the user's responsibility to read and follow label directions. Many products cannot be placed in a crop field. Keep in mind with bait type poisons that rock chucks must eat them. While they are feeding on the nice fresh young green crops, offering them something less palatable is not likely to be effective. New crops and gardens are like candy and dry or weathered baits are like rice cakes. Which would you choose? If you don't have an Idaho Pesticide Applicators license and would like to get one, a class is offered each spring through the University of Idaho, Twin Falls County Extension office, or if you choose you can order study materials and prepare on your own. The test is offered many times throughout the year in Twin Falls and Burley. Please call the Twin Falls County Extension office (208) 734-9590x19 and talk with Steve for more details.

Another control option is shooting. Growth and urbanization throughout the valley has limited the amount of rifle shooting that can take place. Small caliber rifles and shot guns can be effective but if this method is chosen, you must be persistent to be sure you have eliminated the population. Extreme care must be used to ensure there is a safe back stop and no bullets can ricochet into irrigation equipment, livestock, buildings, roads, or people. Finally, if you wish to pay for someone to come and help, you can attempt to find a local exterminator or call the US Fish and Wildlife Services in Gooding at 935-4354.

There are some control options for rock chucks. It takes time, money, and persistence and once you get rid of one population, another can move into the prime real estate of pre-dug burrows if you don't obliterate them. That is very difficult in large rock piles. There is no silver bullet and some methods are more effective than others. It may take some trial and error to find your best option.

Introducing the New U.S. Department of Agriculture Icon: Choose MyPlate

Rhea Lanting, Extension Educator

MyPlate is part of a larger communications initiative based on the 2010 Dietary Guidelines for Americans to help consumers make better food choices. It was introduced by USDA this month.

MyPlate illustrates the five food groups using a familiar mealtime visual, a place setting. Check out the website www.ChooseMyPlate.gov to find practical information and tips to help Americans build healthier diets.



Improving what you eat and being active will help to reduce your risk of chronic diseases such as diabetes, heart disease, some cancers, and obesity.

Let's start by choosing one of the Consumer Resources on the website. Eat the right amount of calories for you. Everyone has a personal calorie limit. Staying within yours can help you get to or maintain a healthy weight. People who are successful at managing their weight have found ways to keep track of how much they eat in a day, even if they don't count every calorie.

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Introducing the New U.S. Department of Agriculture Icon: Choose MyPlate

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Enjoy your food, but eat less. Get your personal daily calorie limit at www.ChooseMyPlate.gov and keep that number in mind when deciding what to eat. Think before you eat. Is it worth the calories? Avoid oversized portions. Use a smaller plate (try a 9 inch instead of a 12 inch platter), bowl and glass. Stop eating when you are satisfied, not full. Eat slowly.

Cook more often at home, where you are in control of what's in your food. Refer to the website for menu ideas, to help you plan your meals. Experiment with healthy recipes and ingredient substitutions.

When eating out, choose lower calorie menu options. Check posted calorie amounts. Choose dishes that include vegetables, fruits and/or whole grains. Order a smaller portion or share when eating out. Also, when eating out, avoid choosing foods with the following words: creamy, fried, breaded, battered, or buttered. In addition, keep portions of syrups, dressings, and sauces small.

Write down what you eat to keep track of how much you eat.

Try this recipe from the SNAP-ED connection, which features many healthy recipes.

Salmon Patties

Serving Size: 1/9 of recipe

Yield: 9 servings

Ingredients:

- 1 can (15 ½ ounces) salmon, drained
- 1 cup whole-grain, crushed cereal or crackers
- 2 large eggs, lightly beaten (or egg substitute)
- ½ cup of 1% milk
- 1/8 teaspoon black pepper
- 1 tablespoon vegetable oil

Preparation:

1. Use a fork or clean fingers to flake salmon until very fine.
2. Crumble cereal or crackers into crumbs.
3. Add cereal or cracker crumbs, eggs, milk, and pepper to salmon.
4. Mix thoroughly.
5. Shape into 9 patties.

6. In a skillet, heat oil over medium heat.
7. Carefully brown both the sides until patty is thoroughly cooked.

Nutrients per serving: Calories 110, Total Fat 4.5g (remember these are healthy omega -3's.), Sodium 270 mg and Protein 12 grams.



Picture resource: Google – Salmon Patties

Mosquito Alert

With the wet spring and rising temperatures, conditions are just right for mosquito populations to boom. The Twin Falls County Pest Abatement District wants to remind everyone to do their part in reducing mosquito numbers. Mosquitoes require standing water for larva to develop. An easy way to prevent mosquitoes is to drain or treat standing water. A gallon sized container of water can produce several thousand mosquitoes. The top three locations that produce the most mosquitoes near residences are:

- ⇒ forgotten containers,
- ⇒ livestock watering troughs, and
- ⇒ overwatered areas.

In the summer it takes less than seven days for mosquitoes to develop and hatch, so containers, swimming pools, or anything else that holds water are great mosquito homes. Livestock watering troughs are easily treated with the addition of a couple of gold fish to dine on mosquito larva all summer long. When watering let the ground dry between cycles; if you have irrigation water that stands for more than seven days you are producing mosquitoes. We can all do our part to reduce the nuisance and disease threat of mosquitoes. More information about mosquito control can be found at tfcpad.org or by calling (208)-733-2338.

Livestock Risk Protection Program Available in the Pacific Northwest

The Risk Management Agency's (RMA) Spokane Regional Office would like to remind Pacific Northwest livestock producers that the Livestock Risk Protection (LRP) program is available in all counties in Idaho, Oregon and Washington. LRP insurance plans include Fed Cattle, Feeder Cattle, Lamb and Swine.

LRP coverage protects the policyholder from downward price risk during the insurance period. It does not cover any other peril (e.g., mortality, condemnation, physical damage, disease, individual marketing decisions, local price deviations or any other cause of loss).

There are two steps to buy LRP coverage: 1) producers must submit an application. Once the application is approved, the livestock crop insurance provider will assign a policy number; and 2) the producer activates coverage at any time by applying for a Specific Coverage Endorsement (SCE). No insurance coverage is provided until the producer submits an SCE. Insurance will attach immediately when RMA confirms the SCE has been accepted.

Premiums are due on the day an LRP insurance endorsement is purchased and includes a 13-percent subsidy on the premium from RMA. To determine a premium, an insured producer will select the appropriate insurance period covering the expected sell or slaughter date; choose a coverage price based on the chosen coverage period; provide the number of livestock expected to be ready for sale or slaughter at the end date and the target weight at time of slaughter; and the percentage share of ownership in livestock to be insured.

Sales for the 2012 crop year will begin July 1, 2011 and continue through June 30, 2012; or until the maximum underwriting capacity as established by the Federal Crop Insurance Corporation is reached. Cattle, swine and lamb producers are encouraged to contact a local livestock insurance agent to learn additional details. Federal crop insurance program policies are sold and delivered solely through private crop and livestock insurance companies. A list of livestock crop insurance agents is available at all USDA Service Centers throughout the U.S. or at the RMA Web site address: <http://www3.rma.usda.gov/tools/agents>

Grasshoppers are back! Maybe

Steve Hines, Extension Educator

I noticed many small grasshoppers in my pasture in Jerome last week and I have seen them around the area. The numbers I observed in my pasture made me a bit concerned that we could have a grasshopper problem later this summer. Now is the time to be vigilant. Get out and look around your fields and pastures, especially dry corners, or border areas. It is much easier to control the grasshoppers when they are small. Once grasshoppers hatch and start moving out, control becomes much more problematic. Large populations of small grasshoppers can be controlled in a small area with an application of any of several pesticides. The particular product will depend on the application site or crop. Be sure to read and follow label directions and be sure the product is labeled for both the pest and the site to which you are applying. If you suspect you have a large population of grasshoppers you need to contact your University of Idaho Extension office or USDA-AHPIS directly. The USDA will have a field inspector look at the area and determine the population level of the grasshoppers. If the USDA determines there is an outbreak, there are some measures that can be implemented to help landowners. Controlling grasshoppers with an insecticide when they are small and in a concentrated area is your best option rather, than to wait for verification by the USDA.

Forage Field Day Coming August 25th.

The University of Idaho Twin Falls County Extension and Mycogen Seeds will sponsor the 2nd Annual Forage Field Day at the University of Idaho Kimberly Research and Extension Center on August 25th. Registration will begin at 8:00 AM. The program will primarily focus on corn silage production but will also feature alfalfa research being conducted on the farm. There will be a morning education program followed by a farm tour of forage projects, a sponsored lunch, and then a forage harvest demonstration with a discussion of chop length and how it affects packing and feed quality in cattle. Plan to attend this free program and learn about producing and storing high quality corn silage. Look for details to follow in the Times-News, Ag-Weekly, Forage magazine and other sources.

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