

## **Fall Cool Season Forage Management**

It is time to seriously think about fall forage establishment and Management. The use of cool season forages is typically the least expensive method of wintering livestock and provides the highest level of performance for growing animals. Cool season forages fall into two categories, annuals and perennials.

Annuals include species such as wheat, rye, oats, barley and rye grass. Each has its own particular growing season and producers should take this into account when setting up a forage production management plan. Species selection and fertilizer timing need to be fitted to the time frame when that forage is most needed in your production operation. Wheat, oats, and ryegrass produce most of their forage in spring(60%) and (35%) in the fall whereas rye and barley produce about 50% of their yield in the fall .With differing growing seasons, fertility programs should be tailored to fall and spring production goals. Cow herd forage needs should be estimated by growing season so we do not over or under fertilize the forage resource we have present.

Perennials such as Fescue, orchard grass and wheat grass also have the ability to produce both fall and spring forage and should be fertilized to meet the forage goals of each individual producer. Using fescue as an example, it has the ability to produce a ton of fall forage growth. During the fall, we see fewer toxicity effects on the cattle due to endophyte. If we fertilize for fall growth we can provide high quality stockpiled forage for our grazing animals in January and February with little fear of toxicity problems. We could then graze those animals on ryegrass starting in March, reducing the amount of hay necessary to keep our animals in good body condition. We would forego fertilizing the fescue in the spring to reduce the amount of high endophyte forage we had to deal with.

### **Stockpiling Bermudagrass**

Now is the time to start thinking about forage management for this fall and winter. Whenever winter forage management is discussed, most people think of feeding hay or utilizing small grain pasture. Have you ever considered using bermudagrass as dry-standing forage from late November though January? In most years, when conditions are right it can easily be done.

Our region provides excellent growing conditions to yield a ton of forage per acre through the fall. Rainfall received in early fall plays a significant role in fall forage production. The average rainfall totals for September and October are 4.2 and 3.7 inches respectively.

In late summer, grazing should be deferred and additional nitrogen fertilizer should be applied. Sixty to eighty pounds of actual nitrogen per acre should be applied from August 1 to Mid September. Again, all grazing should be deferred through the fall until the first killing freeze. For our region, the freeze date can range from late October to early December. This freeze will force bermudagrass into dormancy and grazing can begin anytime after this date.

The quality of dry-standing bermudagrass remains extremely high well after it goes dormant. It is not uncommon to have bermudagrass with 11% protein well into January. Remember that a dry cow will only need approximately 8% protein to maintain body condition. Therefore, very little, if any, supplement will be needed through this period. Stockpiled bermudagrass fits well with a spring-calving herd.

Strip grazing allows better forage use efficiency when grazing dry-standing bermudagrass. If cattle are given full access, then a large percentage of pasture will be wasted due to trampling and animal waste. By simply using a single-wire electric fence, you can allow enough forage to carry the herd approximately three days. The number of days will vary depending on how often you want to move fence. Experience has shown that moving the fence around every three days will not only provide better forage utilization, but will support the cow

better by keeping her on a quality forage. As the cattle cleanup the given area, move the fence to allow access to some more of the bermudagrass.

It is important to remember that stockpiled bermudagrass yields will vary from year to year depending on rainfall, fertility and freeze date. Also, if the winter is wet, then dry-standing forage can decompose quicker than in a dry winter. The weather plays an extremely important role in the success or failure of stockpiling bermudagrass.

## **Establishing A Wildlife Food Plot Program**

Establishing food plots for wildlife is not a difficult process and can be done with minimal investment. A basic understanding of the soil, the wildlife species you wish to attract, and wildlife food preferences will help make your food plots successful. When done properly, food plots can provide opportunities to view wildlife or develop a healthier wildlife population. Establishing food plots can also be a great activity for a family or members of a conservation organization.

### **Goals of the Food Plot**

Before investing time, labor, and money, ask yourself why you want to establish food plots. Do you hope to increase the health and quality of the animals on your property? Do you simply want to increase your chances of viewing more wildlife? Is there a particular species of wildlife you want to attract? Once these are identified, completing the project will be much easier.

### **Preparing the Site**

Soil is the building block from which plants grow, and without proper soil nutrient levels, plants will not achieve their maximum yield. Sampling and testing the soil is the only way to know for certain the present nutrient levels and which nutrients must be added to achieve optimum plant growth. Using a shovel or a soil sampling tool and a plastic bucket, walk in a

zigzag pattern through the area you wish to establish. Take random soil samples to a depth of six to eight inches and place the samples in the bucket. The key to soil sampling is taking random samples. The more samples you take, the more accurate your results.

Generally speaking, fields up to 30 acres in size can be sampled as one field. However, if there are varying soil types or obvious differences in a field that may be unique, you may want to consider isolating these areas and sampling them as separate units.

After completing the sampling process, thoroughly mix the soil in the bucket and take enough out to fill a pint sized zip lock bag and bring it to the Extension Office. You should receive your soil test results within two weeks. The report will explain your present soil nutrient levels and make recommendations for lime and fertilizer based on the crops you intend to plant. As a rule of thumb, soil testing should be done once every three years. If you have questions about your soil test report, contact the Extension Office.

### **Sizing the Plot**

As you consider your proposed site, give some consideration to the size of your food plots. Your plot can be any size, but it should be large enough to be functional to wildlife. To be effective, your plot should be at least 1,000 square feet. No more than 1/4 to 1/2 acre of food plot is usually needed for each 20 acres of land. If your food plot is expected to provide winter cover, then plots of an acre or more are necessary.

Food plots are usually planted in long strips adjacent to good winter and/or escape cover such as a brushy fencerow, field border, windbreak, woodland edge, or wetland. Strip width can vary, but the wider the strips, the more food and cover created for wildlife. The closer the food plot is to good dense cover, the more use it will have by wildlife.

### **What and When to Plant**

Two factors will help determine which crops to plant in your food plot. The first is your goal(s) for the project. Wildlife species differ in the plants that they prefer. The second is the landscape around the proposed site. If acres and acres of corn and soybeans surround you, planting more of the same probably will not attract wildlife to your property. However, if there are none of these fields in your area, you may be able to attract wildlife that uses these crops.

### Equipment

Many food plots can be established with a minimum investment in equipment. A small tractor, disk, and corn planter or grain drill will often do the job. If you own an ATV, there are several manufacturers of seeders, fertilizer spreaders, and other attachments designed specifically for use with an ATV.

For small areas, once the area has been prepared, planting the seeds by hand can be done successfully. Many soil and water conservation districts have seeding equipment for rent on a per-acre basis. In some cases, local farmers can be hired to complete the tillage and planting.

### Common Errors

Here are some common mistakes made by people establishing food plots:

- More is better. Exceeding the seeding, lime, or fertilizer recommendation is a waste of both time and money and, in the case of lime and fertilizer, too much may negatively affect the crop. The recommendations for seeding and nutrient application have been researched and should not be exceeded.
- Not fertilizing. Most crops need applications of fertilizer to help them grow and achieve maximum productivity. Don't assume your soil doesn't need fertilizer. Soil test -- don't guess.
- Using old seed. Seed that is old may not have been properly stored and handled.

Make certain to use new, high quality seed in your food plot.

- Planting agricultural seeds in shaded areas. Plants grown for agricultural purposes require sunlight for energy and growth. Avoid placing these seeds in shaded areas such as woods.
- Not planting enough acres. Food plots that are too small are ineffective. Food plots can be any size, but should be at least 1,000 square feet. Food plots of 1/4 to 1/2 acre in size for every 20 acres are a good rule of thumb.
- Planting too late for maturity. All crops require a certain number of days to grow and mature. If the plants are planted too late, they will not mature and will fail to provide food to wildlife.

### How to Read a Feed Label

How long has it been since you really looked at the content of your cattle's concentrate feed? If you're like many people, you probably stand in line at the feed store, ask for your favorite feed at the time, heave the feed into the back of your truck, and drive on home without as much as a second glance at the ingredients or the nutrition in that ration. It's what you've always bought, and the cattle like it fine...that's what's important, right?

Chances are you haven't taken the time to read that little label sticking out from the bottom of the bag. That's a shame because the tag attached to each bag of commercial cattle feed can supply a wealth of information to the consumer who reads the fine print. Learning to interpret the information supplied by the manufacturer isn't all that difficult, and it can tell you whether the feed you're buying is truly the best choice for your animals.

Feed labels on cattle feeds should include:

- ***The product's name***--which must accurately reflect the intended use of the feed.
- ***A purpose statement***--describing the species and the class of animal for

which it is intended (breeding, maintenance, lactation, growth). Again, this is intended to help the buyer make the choice best suited to his or her animals.

- **A description of the feed format**--for example, pelleted, textured (the industry name for what most of us call "sweet feed"--mixed grains with molasses added for flavoring), or extruded.
- **A Guaranteed Analysis**--which is where the labeling might vary somewhat according to the state in which the feed is manufactured. Minimum requirements are for statements of crude protein, crude fiber, and crude fat (expressed as percentages), minimum and maximum percentages of calcium, and minimum values for phosphorus (%), copper (parts per million, or ppm), zinc (ppm), selenium (ppm), and vitamin A (International Units per pound). This is a significant improvement over the labeling standards of just a few years ago, when American consumers got the bare minimum of protein, fat, and fiber values. In addition to the numbers required, feed companies will sometimes list other ingredients, especially where the amount included might be of special interest to the buyer. However, the more ingredients you list, the more you're open to testing and verification that all the levels are dead on, so manufacturers tend to be conservative about it.
- **An ingredient list**--which might list every ingredient in the feed, but more often is deliberately vague. There are two reasons for this: First, some feed formulas are designed to be variable, so that one ingredient (providing similar nutrition) can be substituted for another as grain market prices fluctuate. With a variable formula feed, the manufacturer would go to considerable expense reprinting feed labels every time the formula changed slightly. Also, many manufacturers prefer not to divulge the exact formula for their grain rations, for fear of being copied by the competitors.

So, instead of specific ingredients like soybean meal or cottonseed meal, you might see phrases like plant protein products listed on the feed label; instead of brewer's yeast, wheat bran, or corn gluten feed, you might see a listing for processed grain by-products.

- **Directions for use**--this usually includes a chart or guideline for feeding amounts, calculated based on the weight of the animal and their stage of production. These guidelines usually are calculated so that, along with an appropriate forage product (pasture or hay), the feed will provide complete nutrition when fed in the recommended amounts.
- **The net weight of the feed** (useful when calculating your feed cost per day).
- **The manufacturer's name and address**--provided so that the consumer can contact the manufacturer should questions or problems arise. Most companies are willing to answer questions and get feedback from their customers.

In addition, although it's not required, most feed companies provide a date of manufacture somewhere on the bag or feed tag. Often, though, it's encoded, so that the feed store employees can read it, but the consumer cannot. The reason for this is that people often confuse the date of manufacture with the expiration date, and assume the feed is out-of-date and "stale." An average pelleted or sweet feed, correctly stored, has a shelf-life of about six months, according to most sources, and a fat-supplemented one (which is more prone to spoilage), about three months. If you'd like to ensure the best available freshness for your cattle, look for a date stamp, or ask your feed store representative to translate the code for you.

Let's take a look now at some of the numbers on that Guaranteed Analysis on your feed label, and see what they can tell you--and what they can't.

Crude Protein

We tend to describe cattle feeds in terms of their protein content--12%, 20%, 38%, and so on--but protein is neither the primary source of energy in the feed, nor necessarily an indicator of its quality. In other words, a feed with a higher protein percentage is not necessarily a better feed, or a better choice for your animal. But because protein is a relatively expensive ingredient, the price of the feed does tend to reflect the protein value.

The percentage of crude protein expressed on a feed label is calculated from the nitrogen content of the grain. The word "crude" on the label is an indicator that not all of the protein included in the percentage listed will actually be digestible by the cow. There will always be a certain amount of protein that the animals gut just cannot process, which will pass through untouched. If you're calculating a feed ration, you can commonly deduct 2-5% of the crude protein value on the feed label in order to come up with a ballpark figure for the *digestible protein* level of the feed.

#### Crude Fat

Crude fat also is expressed as a percentage on a feed tag; it refers to the total ratio of fats and oils contained in the product, including both saturated (animal) fats and unsaturated (vegetable) oils. Fat is energy-dense, providing several times as much energy, pound per pound, than do carbohydrates or protein; the higher the crude fat value, the higher the calories provided per pound of feed, so fewer pounds of grain might be needed for the same amount of energy and weight maintenance.

#### Crude Fiber

The crude fiber value of a feed plays a major role in determining the energy content of a feed. Generally, as the fiber percentage decreases, the calories per pound go up; and as fiber levels increase, the calories go down. Therefore, high-fiber feeds must be fed in larger quantities in order to maintain the same calorie intake per day, and this may mean that feeding a high-fiber feed is more expensive in the long run. High-

fiber feeds (those with fiber values higher than 10%) usually are designed to be "filling," low-calorie feeds which are most often used in self feeding situations.

The word "crude" in the case of fiber describes both the digestible and indigestible fiber in the feed. Digestible fiber is the type from which the cow's gut can absorb nutrients. Large quantities of indigestible fiber, however, are an indicator of a poor-quality feed that is using "fillers." Unfortunately, there's no way to tell from the crude fiber percentage how much of each type the feed contains.

Although the feed tag doesn't tell you everything, it can be a valuable reference guide, particularly when combined with an analysis of your forage. If you have questions about the information on the label (or what is not on the label), don't proceed in the dark contact your feed salesperson, or the Extension Office to make sure that you receive the information that will help you to make the decisions that you need.

## Fence Line Weaning

Weaning time can be stressful for cows and calves. Under traditional weaning systems, changes in environment, diet composition, and pathogen exposure can reduce animal performance and result in health problems. In response to these challenges, interest in fenceline weaning has grown in recent years.

Fenceline weaning is a management system in which the calves are removed from their dams but are allowed to see, hear, and smell their dams. Depending on the fencing used, physical contact may also be possible. Fenceline weaning has the potential to reduce stress related to transport, changes in environment, and diet adaptation. It may also reduce labor demands and costs associated with drylot facilities.

#### Calf Behavior

Research investigating fenceline weaning has demonstrated a reduction in behavioral signs of

stress in young calves. Observations of calves that were separated from their dams—but allowed to see, hear, and smell them—spent more time eating and less time walking and bawling than their counterparts that were completely separated from their dams. The behavior of calves that had been fenceline weaned was more like that of their non-weaned counterparts.

### Calf Performance

University of California-Davis researchers observed an advantage in average daily gain of calves that had been fenceline weaned onto spring (May) pasture when compared to contemporaries that had been completely separated from their dams and placed in either pastures or drylot pens. The performance advantage was observed at 2 weeks and 10 weeks after weaning. In a 3-year study at South Dakota State University, differences in the weight gain of heifers that were fenceline weaned on grass pasture in October compared to heifers weaned in drylot were dependent on year-to-year differences in pasture conditions.

Post-weaning performance is highly dependent on the quality and amount of feed that is available to young calves once they have been removed from their dams. Early in the post-weaning period, calves weaned onto high-quality pastures would be expected to gain more relative to calves weaned into a drylot. The decision to provide supplemental protein or energy to weaned calves can be made based on quality and quantity of the forage available.

### Calf Health

Reducing stress on a calf can help improve immune function and reduce morbidity. Fenceline weaning has been shown to reduce the signs of behavioral stress. Many times the incidence of disease symptoms and the acquisition of immunity following vaccination is similar for pasture weaned and drylot weaned calves.

### Considerations

1. Fencing should be substantial enough to prevent the calves from nursing and keep the cows and calves separated. Producers can use various combinations of electric and non-electric, and high-tensile, barbed, and woven wire fencing. Cattle that have not been exposed to electric fencing, may need either woven wire or at least 5 strands of electric fencing to stop them during the weaning process. If the cattle are familiar with electric fencing, three strands will likely be sufficient. Yet another option is to utilize 4 to 5 strands of barbed wire combined with a single strand of electric fence offset from the main fence.

2. Pasture the cows and calves together in the pasture where the calves will be after weaning. One week in the pasture allows time for the calves to become familiar with the fences and water source. At weaning time, return the calves to the same pasture and move the cows to the adjoining pasture.

3. Some producers have found it useful to use a yearling or a cow without a calf in the weaning pasture to lead the calves to the water source.

4. Performance of the weaned calves is highly dependent on forage quality and quantity. Options to provide high quality forage in the weaning pasture are:

- a. Graze early in the season and allow adequate re-growth prior to weaning.
- b. Harvest hay and then graze at weaning time.
- c. Plant ryegrass, small grains, or other annual forages to provide high quality forage.

5. Fenceline weaning fits well into a management system where maximizing gain is not important (replacement heifer development or backgrounding calves).

6. The need for supplementation of calves weaned on pasture depends on forage quality and quantity and the desired average daily gain.

## Oklahoma Quality Beef Network

“The times, they are a changing”, is a familiar quote that is getting a lot of ‘play’

today within the current environment of politics and the economy. However, that observation is just as valid when you consider today's agricultural environment. More specifically, as we look at today's beef cattle industry the factors influencing change become overwhelming. It is the mission of Oklahoma State University to conduct the research that develops the knowledge that is extended to the citizens of Oklahoma to enlighten and enrich their lives through education.

“So how does this affect the price of cattle in Oklahoma”, you might ask? Most beef cattle producers realize that there are many factors that they have little or no control over such as the weather, price of feed, market trends, consumer demand, feedlot occupancy, futures prices, etc. As a result, they are more or less at the “mercy” of these factors when they produce and sell their calves, and certainly their profitability is affected by these factors. However, there are other factors that can be controlled by the producer that do have significant influence on the prices received for his cattle. These factors include weight, breed character, gender, frame, muscling, gut fill, body condition, number and uniformity of cattle in a sale lot, and health. So, how do these characteristics of the calves you sell affect the prices you receive? Simply stated, buyers appraise individual characteristics of cattle as predictors of quality and animal performance and adjust their bids accordingly. It is this fact that brings us to the crux of this discussion.

The Oklahoma Quality Beef Network is the “complete” value-added program as it is a network of Oklahoma State University, Oklahoma Cattlemen's Association, beef producers and allied beef industry. OQBN offers unbiased information on beef value enhancement. It provides producers and

others in the beef industry education and tools to enhance access to value added programs such as health management verification, age verification, source verification, production system verification, genetic verification, and alignment with appropriate value-added cattle markets.

The OQBN Vac-45 is an example of a health management verification option for beef cow-calf producers to participate in a value-added sale that will be held on December 9, 2009 at the Red River Livestock Auction in Overbrook, Oklahoma. Producer enrollment forms are available from the Red River Livestock Auction management, OSU Extension offices throughout southeast and south central Oklahoma, and the Animal Science Department at Oklahoma State University. The latest weaning date to wean calves for this OQBN Value-Added Sale is Sunday October 25, 2009.

Other requirements that must be met for producers to participate in this marketing opportunity include such things as bull calves must be castrated and healed, calves must be dehorned and healed, calves must be weaned at least 45 days, Beef Quality Assurance guidelines must be followed, calves must be tagged with a program-compliant ear tag, calves must be fed a minimum of seven days after weaning to train them to eat from a bunk, and producers must follow one of three vaccination protocols. The OQBN Vac-45 program is “brand neutral” which means that the producer and their veterinarian can select the vaccine products and protocol that best suits the producer's own management situation. It is recommended that calves be dewormed and treated for external parasites, provided high quality hay or pasture, have free access to clean water and mineral, and provided a coccidiostat.

In addition to the premiums often paid by the buyers at value-added sales (\$3 to \$6 per hundredweight) the OQBN Vac-45 program provides such benefits as reduced cattle stress and shrink, improved immune system, increased sale weight of cattle, increased market demand, brand-neutral utility, and dual certification in other health management verification programs.

#### DATES TO REMEMBER

October 20, 2009

Pontotoc Co. Cattlemen's Association  
Annual Banquet

7 p.m.

Pontotoc Co. Fairgrounds Convention  
Center

Please R.S.V.P. by calling (580) 332-2153  
on or before October 14, 2009.