



Fine Tuning Winter Feeding Programs

Many articles on winter-feeding programs for beef cows highlight the need to forage test the hay supply. Other articles focus on describing body condition scoring (BCS) the cowherd. How do these two topics overlap to provide a daily scorecard of how your cowherd is performing on the ration you are providing?

A quick refresher on BCS is in order, not to insult anyone's intelligence, but to set the stage for monitoring the winter feeding program.

Body condition scoring of beef cattle is a 1 to 9 scale with 1 being emaciated and 9 being obese. Our target calving BCS for mature beef cows is 5 to 6. This keeps our herd on target for a BCS of 5 at the start of the breeding season.

When evaluating an animal, a BCS of 5 means the ribs and backbone are not visible, but fat deposits around the base of the tail head are not present. Personally, when I begin to see fat deposits around the tail head, I score those animals a 6.

Now is a good time to evaluate the BCS of your herd. Why? If body condition needs to be added before calving, we are running out of time to accomplish that goal. From a dietary perspective, calories add body condition, and concentrated sources of calories are provided by grain and grain by-products.

Consider the following scenario. To develop an example winter feeding program, I used a hay test received in the office to determine forage quality of my hay supply. Total digestible nutrients (TDN) of the hay was 51% and crude protein tested 8.5%. This is in line with what I have been seeing so far this year. My estimated calving date was March 15.

Let's now bring in the aspect of body condition at calving. My target BCS at calving was 5.5. If my current

BCS is 5.5, I need very little in the way of additional energy, approximately 2 pounds of corn will maintain that level of condition on my cow herd, provided there are very few days of extreme weather conditions.

If my current BCS is 5.0, my goal is to add some condition prior to calving, so my corn supplementation rate jumps to about 4 pounds per day.

If my current BCS is 4.5, I need to add one full BCS before calving, and that further increases my corn supplementation rate to approximately 6 pounds per day.

No additional protein was necessary in any of these scenarios.

Take the time now to make an honest evaluation of the body condition of your cowherd. Sometimes, it is helpful to have another set of eyes evaluate your herd. Armed with a current hay test and BCS information, a cost-effective winter feeding program can be developed to meet your herd's nutritional demands. The performance of that feeding program can be monitored by on-going observation of the herd's condition, and adjustments can be made as necessary.

If you have questions or would like assistance with hay testing, interpretation of hay test results, body condition scoring, or winter feeding program development, contact me at the Extension Center in Sedalia at (660) 827-0591 or your MU Extension Livestock Field Specialist.

Source: **Gene Schmitz**, *Field Specialist for Livestock*



4R Plant Nutrition: A wide-ranging strategy for improving plant nutrition

Farmers are fundamentally charged with being stewards of the land. If they are not good stewards, they certainly will have challenges of remaining economically viable for any length of time. We currently live in a world where increased food demand coupled with environmental concerns create challenges not seen before.

In 2012, the International Plant Nutrition Institute (IPNI) released an educational resource manual titled 4R Plant Nutrition. A manual for improving the management of plant nutrition. The 4R Nutrient Stewardship concept helps producers to recognize and achieve Best Management Practice (BMP) cropping system goals such as increased production, increased farmer profitability, enhanced environmental protection and improved sustainability. While the principles are the same around the globe, implementation at a local level varies by site-specific characteristics such as soil, crop, climate, weather, economics, and social conditions.

The 4R "rights" concepts to achieve these cropping system goals include:

Right Fertilizer Source: which matches fertilizer type to the crop needs

Right Rate: which matches the amount of fertilizer type to crop needs

Right Time: which makes nutrients available when crops need them

Right Place: keeps nutrients where crops can use them

While this 4R nutrient management approach is essential to sustainable operation in the crop-soil-climate system, it also considers economic, social, and environmental goals that we all desire. The selection and priority of the nutrient management approach depends on individual producer values balanced with performance indicators.

The performance indicators include farmland productivity, soil health, nutrient use efficiency, water quality, air quality, greenhouse gas emission, food and nutrition security, biodiversity, and economic value. Each of these indicators provides a layer of production complexity in your production decision-making process. Science and technology continue to advance our understanding and improvement of BMPs. Good stewards of the land continually balance this advancement with practical and applied practices under site specific (local) conditions. The 4R approach to nutrient stewardship is another valuable source of information as you refine and balance your economic, social and environmental goals.

Details on obtaining a complete copy of this IPNI manual and other resources supporting 4R Nutrient Stewardship can be obtained at www.ipni.net/4R.

Source: **Todd Lorenz**, *Field Specialist for Agronomy*

Happy New Year 2020!

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Please send your comments and suggestion to the editor, University of Missouri Extension, 201 W. Wall St., Harrisonville, MO 64701
email: hoffmand@missouri.edu or call 816-380-8460

For more information
please contact your local
MU Extension Center:

**WEST CENTRAL
REGION**

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660-679-4167

Benton County
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Camden County
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**Passing on the family farm?
Why you should put serious
thought into planning your
succession.**

Isn't it every farmer's dream to pass on the farm to their son or daughter? To know that it's in good hands? While this may be the goal for many producers, few properly prepare, which can lead to the demise of the family operation. Succession planning is more than just leaving the farm to a family member in your will. It takes years of planning, coordination, and communication to see the business pass to the next generation.

When planning for the future there are a few things you should consider. Such as if the next generation wants to run the farm? If so, is there enough income generated from the farm to support multiple families? Does everyone involve share the same goals? Knowing the answer to these questions can seem difficult, but creating and implementing a succession plan can help you find the answers to these questions.

There are 6 elements to a succession plan: conduct a S.W.O.T. analysis, review financial records, determine your direction, identify and develop successors, implement gradually, and monitor progress.

Conducting a S.W.O.T. analysis allows you to see your business as it is now and how it could be in the future. S.W.O.T. stands for Strengths, Weaknesses, Opportunities, and Threats. Going through and writing each of these down for your farm allows you to be more equipped and prepared as a business owner. As well as gives you more information to allow your successor to succeed.

The next element is reviewing your financial records. This helps you establish if your farm is viable to support adding new members to the business. You'll want to look at 3-4 years of profit or loss statements (or schedules C & F), a current balance sheet, and the previous 3 years' balance sheets. This can help track growth or shrinkage of the business and allow you to see if the farm can truly sustain additional people.

After reviewing your financial records, you should determine the direction of your business. Setting realistic goals for both short and long term can help you grow your operation. But be prepared to be flexible as things change overtime and don't be afraid to reset your goals.

The fourth element is identifying and developing your successor. It's never too late to pick a successor, but starting early allows the successor to develop and grow into their position. Consider the potential of all candidates. Communicate this with all parties that may have any stake in the business. Non active members may feel left out and derail transition process down the road. After a successor has been chosen give them opportunities to grow. This can include 3-5 years of work experience outside the family farm, mentors, membership in peer groups, and/or additional education.

Element five is the start of actual succession. Implementing succession should happen gradually. Start by giving your successor complete control of a small percentage of the operation. Allow them the opportunity to grow and invest their own money in the farm or business. Ask their opinion for operational and financial decisions. As they get more experience and established, the transfer of ownership will happen more rapidly. Older generations will start to take a more passive role in the operation until they completely withdraw from the management aspect of the farm.

Element six is an element that should be addressed continually throughout the planning and process of succession. Monitoring progress allows you to make changes and realign goals as needed.

Completing all six elements does not mean that succession will be an easy process. One of the most common barriers to succession planning is communication issues. Being open about your plans with all parties who have a stake in the business will help ease transition. But don't let the conversation be one sided. Be flexible in your decisions. Always have a plan B.

Sometimes succession doesn't work. Throughout the process you should always consider other alternatives if suddenly succession isn't viable. During the early stages simply dissolving the current arrangement and starting over can be very simple. But in later stages, especially after assets have begun transfer of ownership, dissolution can become more complicated. If unforeseen circumstances occur in later stages be prepared to liquidate assets or close the business. Preparing for these circumstances at the beginning is part of an effective plan.

Creating a succession plan may take a lot of resources. Having a professional team can help find and develop the

Estate Planning (cont.)

information you need. Several people can make up your succession planning team but those that can play a key part include a succession/estate attorney, an accountant/tax, a financial planner, a business consultant, an Ag lender, an insurance agent, and an MU Extension Specialist. Each can play a part in developing and implementing your succession plan.

Finally get started. It's never too late or too early to start planning for the succession of your farm or business. Too many people have the intent to plan but let it fall to the wayside until it's too late. Start planning today while you still have the opportunity to give input into the future of your farm.

Source: **Raysha Tate**, County Engagement Specialist in Agriculture and Environment



Broomsedge is Not a Grass

“As I drive to work every day, especially during winter grazing season, I can easily see the invasion is on.”

Broomsedge is an indicator plant, **meaning** it is a symptom of a larger problem. That problem is typically poor fertility. Usually, **broomsedge** thrives in areas where phosphorus is low, or where the soil is so acidic that phosphorus is tied up and cannot be used by the plant. You may have heard that **broomsedge means** the soil needs liming.

Big round bales of mature broomsedge is not a quality protein source and offers little in the field of nutritional value. It really does not offer much as a filler because cattle will not eat it unless their bellies are empty and it is the only thing they have available. In this situation, cattle will be losing weight from lack of a quality nutrient source. Cows nursing calves will produce much less milk thus; calves will not be growing or gaining weight. Purchasing this type of forage is truly wasted dollars from your operation no matter how cheap the bales are.

Even if the nutritional value was great it would not matter since livestock do not usually consume mature broomsedge. Since this plant is just in the way and takes the place of more desirable grasses, controlling it is necessary.

You may have heard that broomsedge means the soil needs liming. That may be true since lime is added to correct the acidity of the soil and make phosphorus and other nutrients more available. However, since the problem could also be related to the soil being deficient in phosphorus to begin with, a soil test should be done before lime or fertilizer is added.

Unfortunately, adding lime or phosphorus doesn't mean all the broomsedge will be gone next year. Fertilizer and lime does not kill the broomsedge, but instead creates an environment that is more favorable to desirable grasses such as tall fescue and orchardgrass.

Of all the soil test received this year in my office, dealing with pasture and/or hay fields Phosphorus was the nutrient least likely to be available in sufficient amounts for obtainable production. This becomes a limiting factor in production, as the soil is not balanced.

Often fields are stripped of their mineral nutrients due to repeated yearly haying thus removing the nutrients from the field as you remove the forage to be fed in other locations. I find this to be a common practice on rented ground or ground mowed raked and baled as an ascetic practice for free hay to the custom operator. In either case fertility is never applied to replace the nutrients being removed. Broomsedge is a perennial and cannot be mowed or bushed hogged out.

Grazing is another management problem often associated with broomsedge. First and foremost broomsedge is not a grass, however, in late spring/early summer when it reaches heights of six to ten inches cattle will eat limited amounts. Often when cattle overgraze early cool season pastures broomsedge steps in as a warm season plant and crowds out other wanted forage species.

Fields do not normally become heavily infested overnight and will not be cured overnight. In one experiment in Missouri, it took 4-5 years for broomsedge to be nearly eliminated through proper fertilization based on soil tests. Patience is required, but changes to fertility and grazing management will eventually be rewarded by a better stand of forage and a decrease of broomsedge and other weeds.

Choosing to do nothing about broomsedge only allows it to take control of your forageland. This in turn means less pasture to graze and more feed to be purchased. Or maybe you will just have to cut your cow herd to meet the current production level at hand thus decreasing you next year's calf crop. Either way you are losing potential profit.

Source: **Terry Halleran**, Field Specialist for Agronomy