



Purina Mills

Management & Nutrition
Tips For Beef Producers

CheckpointTM



FIGHTING HIGH FEED COSTS: BEWARE OF QUICK FIXES

While feed costs may present 50 to 70 percent of your beef cattle production expenses, cost isn't all you need to consider in these times of volatile feed prices. In an effort to reduce feed costs, a "quick fix" could negatively affect the performance and health of your herd. As you evaluate your options, you must focus on dietary and management considerations that will ensure healthy, high performing cattle, according to South Dakota State University Extension beef cattle experts.

Even though you can do little to change the price of corn and other feed ingredients, sound management, along with careful evaluation and implementation of alternative production practices, can lessen the impact of high-priced corn, according to experts. Grazing systems, management practices, and diets can all be adjusted to help minimize expenses. Experts caution, however, to not be too quick about changing cattle nutrition programs without careful calculation and evaluation to accurately estimate the impact any change might have in your particular production setting.

The key to selecting the most economical alternative, whether grain or a co-product feed, is to evaluate each potential feed on a cost per unit of nutrient (crude protein or total digestible nutrients [TDN]) basis. Your Purina representative, dealer or beef consultant can be a valuable resource in that process.

EVALUATE PRODUCTION PRACTICES

You also need to carefully evaluate your production practices. Ask yourself if they are economically viable when grain prices are high. These practices might include creep feeding, extending the grazing season, changing calving and or weaning time, and your cattle marketing options. For example, providing a high quality creep feed for your calves may allow you to wean earlier and sell heavier calves, offsetting the higher cost of feedstuffs.

Experts recommend you use a budgeting process that allows you to evaluate expected revenues and

expenses from each management practice. Any added costs should be offset by equal or greater returns.

Feeding management becomes more critical when the cost of feed ingredients increase. Management factors such as reducing feed spoilage or shrink by improving storage facilities, or processing feed to improve utilization, can improve profitability.

Purina Mills, LLC has designed supplemental feed products to help you economically manage your beef cattle nutrition programs in all life stages, and during times of volatile grain prices. These products can improve animal performance while also enhancing forage utilization. They help you balance the nutritional needs of your cattle when forage quality and quantity continue to decline into late winter. Several range supplements, including *Sup-R-Block*[®], *Sup-R-Lix*[®], and *Accuration*[®] Cattle Limiter, contain Purina's exclusive *Intake Modifying Technology*.

INTAKE MODIFYING TECHNOLOGY

Purina Mills IM Technology supplements are offered free-choice, not hand-fed. IM Technology products are consumed multiple times per day by cattle. They become "snack" eaters, providing a constant supply of nutrients throughout the day. This optimizes the rumen's environment so you're offering cattle predictable, consistent nutrition all the time.

Purina Mills' feeding programs provide nutritional solutions for your cattle that are the culmination of more than 80 years of Purina tradition. Purina understands cattle have different nutritional needs

throughout their production cycle, so the company has performed the in-depth research needed to develop programs that meet the animal's needs during all life stages.

This tradition and research ensures top-quality products to work with your grass or hay in a complete diet. Contact your Purina Mills representative or dealer today. They can help you manage your cattle nutrition program and determine which products can best fit your production system and goals.



NUTRITION PROGRAM HELPS BULL TEST STATION SUCCEED

In 1999, Kent Abele thought there might be a niche opportunity for a private bull test station so he created Green Springs Bull Test Station (GSBTS) in Southwestern Missouri near Nevada. After nearly 10 years performance testing bulls for various breeders, Abele's thought has proven to be true. During its first winter in 1999, GSBTS tested 56 bulls. In 2007, that number had skyrocketed to 918 bulls, making GSBTS one of the largest privately operated bull test stations in the country.

Bulls tested represent breeders and breed associations from 16 states ranging from North Carolina in the east to Montana in the west. "In 2007, we tested different breeds from 102 different breeders from the 16 states," says Abele.

He explains that GSBTS offers performance data to breeders and commercial cattlemen on a standard 112-day test. Results include average daily gain and weight per day of gain. GSBTS also provides customers ultrasound data, including ribeye area, intramuscular fat (marbling) and backfat thickness.

Other important bull information provided includes frame scores, scrotal circumference, pelvic measurements and breeding soundness. Birth and weaning weight EPD's, yearling weight, and genetic lineage also is provided to assist potential buyers in selecting tested bulls.

RFID FEED SYSTEM

In 2005, GSBTS installed the first GrowSafe feed-intake-monitoring system in a bull test station in the United States. "What it lets us do is individual feed intake efficiency testing on bulls," Abele says.

This system, manufactured by GrowSafe Ltd., Alberta, Canada, uses RFID tags to measure feed intake efficiency. "It's a unique system because it does not rely on a feed delivery system or on training animals to go to a certain place or station to eat," explains Abele. "It offers pretty much free bunk access within the pen at any feeding station at any time. It eliminates some of the problems

that the other systems have."

The trait being measured by the GrowSafe system is residual feed intake (RFI) as opposed to the traditional pounds of feed per pound of gain analysis. "We can select for RFI without putting adverse pressure on other traits," says Abele. "When we were



Kent Abele and Scott Keneedy at Midwest Feed and Farm, Nevada, Mo.

selecting for pounds of gain per pound of feed, we were putting some pressure on other traits like frame score, mature animal size and average daily gain. "RFI is a more user-friendly number and the GrowSafe system lets us test for that very efficiently." The demand for RFI data is growing in the cattle industry, according to Abele.

Since its inception in 1999, GSBTS has used cattle nutrition products from Purina Mills. Abele works closely with Scott Kennedy at Midwest Feed and Farm, the Purina dealer at Nevada, Mo.

Dr. Noah T. Cosby, Purina beef nutrition consultant, also is an integral part of GSBTS's bull nutrition program, according to Abele. Dr. Cosby formulates the bull rations and also consults with Abele when needed. "If we have any problems or any questions or need help or advice, he's always been really good to do that for us. He and Scott both are excellent as far as getting answers to questions that we might have, or getting products that we need."

GSBTS test bull calves get their start on Purina's Impact® Starter with its patented intake modifier (IM) technology that can help control feed consumption by calves. This technology allows the starter to be energy dense to enhance calf performance and feed efficiency, yet is safe enough to be full fed.

"The Impact® Starter has been a good fit for us," says Abele. "I think the reason it has worked so well is that we bring cattle in from all over the place. Some of the cattle know how to eat from a feed bunk and some of them have never eaten out of a feed bunk."

"The Impact® Starter lets us put feed in the bunks, and the calves that know how to eat won't eat it all up from the calves that don't know how to eat." The test bull calves are transitioned onto a conventional bull ration that Dr. Cosby helps to formulate.

After nearly 10 years running the bull test station with the help of Purina's leading cattle nutrition products, Abele concludes that he is "very satisfied with Purina. I have absolutely no reason to do anything else."



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Quick Tips-To Help Reach BCS Goals

Body condition scores (BCS) are an excellent means of monitoring the effectiveness of your beef-cow-nutrition program. Here are 10 management tips to help ensure your cows are at a target BCS of 6.0 by calving:

- **Late summer-Evaluate** your cows while still on grass. If they score thin to borderline moderate during this time and forage availability is still sufficient, provide a balanced protein and energy supplement to improve forage intake and increase forage digestibility.
- **Weaning season-Sort** cows by body condition and age. Feed according to target body condition scores desired by calving.
- **Late lactation (2 months prior to weaning)-Depend** upon current forage availability, supplementation and/or a modified weaning strategy may be necessary. Wean thin cows.
- **Weaning-Pay** particular attention to young cows weaning their first calf and cows beyond their prime age. They are most likely to be thin at this time.
- **100 days before calving-This** is the last opportunity to gain body condition and is a good time to separate thin cows from cows in good condition and increase feed to thin cows.
- **Calving-Thin** cows are an indication that a change in the feeding program is needed.
- **Breeding season-If** cows are thin, additional supplementation and/or implementation of an early weaning strategy may be necessary.
- **Feedstuffs-Always** ensure availability of quality feedstuffs containing ample nutrient levels to meet elevated nutrient requirements of cows during important production periods.
- **BCS fluctuation-Be** aware that cow body condition ebbs and flows over time in relation to productivity and climatic conditions. Try to accurately evaluate the status of your cows' BCS in relation to future levels necessary for key production periods.
- **Supplements-Use** supplement programs which correct for nutritional deficiencies and also complement and improve utilization of the base forage.

GOOD NUTRITION VITAL FOR EFFICIENT REPRODUCTION

Good nutrition is critical for efficient reproduction in cow-calf enterprises. Most reproductive failures in beef cows, for example, can be attributed to improper nutrition resulting in thin body condition.

The cow's priorities for nutrition are maintenance, lactation, growth and reproduction. The nutrition level pre- and post-calving affects the conception rate of subsequent breeding seasons. Cows that are thin prior to calving will have a delayed onset of estrus. Thin cows after calving will have reduced conception rates.

Obesity is a problem in heifers that become fat during the growing phase. Fat heifers normally have lower than average reproductive rates. Immature cows continue to grow until approximately 4 years of age. These young cows should be maintained through the yearly cycle about one body condition score (BCS) higher than mature cows to achieve the same reproductive performance.

Monitor the effectiveness of your nutrition program in the long-term by herd performance records. But, to deal with your present situation in the short term, pay close attention to the BCS of your cows.

According to information from the Minnesota University Extension Service, research has shown that each 10 percent of body weight lost before calving can result in a delay of the first heat period by 19 additional days. Cows too thin at calving take longer to recover and to start cycling for re-breeding. These cows will have lower conception rates than cows in moderate-to-good condition at calving. It is important to bring thin cows into condition as soon as possible to improve the odds of success at the start of the breeding season.

Dividing the cow herd into two groups according to nutritional needs, and feeding them accordingly, can have a positive impact on re-breeding success.

BULL NUTRITION

Nutrition also is important for the reproductive efficiency of breeding bulls.

Management of bulls includes the following three phases:

- **Before breeding season** - Nutrition prior to the breeding season is important as bulls will tend to lose weight during the season.
- **Yearling bulls** - Should be growing adequately and maintaining satisfactory body condition without becoming excessively fat. This will require between 25 and 30 pounds of dry matter from a ration that is about 80 percent high quality forage and 20 percent concentrate. A 12 percent to 14 percent protein ration is needed. In many cases, a complete feed that will put bulls in good rigor without over conditioning them is preferred.
- **2 year old bulls** - Are already at most of their mature size, so their ration is not quite as crucial. Approximately 30 to 35 pounds of a ration consisting of high quality forage and 5 pounds of grain should meet their needs.
- **Mature bulls** - The nutrition program should be based on physical condition of the bulls at the start of the conditioning period. If they have wintered well, a high quality forage plus 5 to 7 pounds of grain will build the necessary energy reserves.

Bulls should be evaluated and separated into two groups as they come out of pastures. Those in good condition that need no special care should be placed in one group. They will usually do well on primarily roughage diet. Young bulls that are still growing, and thin mature bulls, should be placed together so their nutrient needs may be met with some supplemental feed. All bulls should have access to high quality minerals.

Purina Mills, LLC has feed products to meet the precise nutrient needs of both brood cows and breeding bulls. Your Purina representative can help you determine cow and bull nutrient needs and select the supplements to help meet the specific needs of your herd.



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Is Your Hay Supply Adequate Until Spring?

Do you have enough hay stored to meet the needs of your cattle for the remainder of the winter? Even though you may have stored what you think will be enough hay to carry your herd through the winter, conditions often change so you might be concerned that you will run short before spring.

If you are worried about having enough hay on hand, Warren Gill, University of Tennessee Extension beef specialist, offers this formula to use to help estimate your available feed.

- Count the number of hay bales you have and, if possible, weigh a few to get an idea of their average weight. Multiply the number of bales by the average weight.
- During storage and feeding, you may lose 25 percent or more of large-package bales stored outside. Subtract this amount from the available feed.
- Calculate the number of animal units. Count a mature cow or bull as one unit, yearling cattle at a half unit and calves as a quarter unit.
- Determine the number of remaining total days you estimate you will need to use winter feed in your area.
- Figure each animal will eat 25 to 30 pounds of hay each day of average-to-good-quality hay with average wastage. Then, multiply your animal units times the number of days times the forage per day. Divide by the average weight of your bales to see how many bales you will need.

If you think your hay supplies will be inadequate and you need to obtain more, you can contact your university extension service or other sources for finding more hay or figuring suitable strategies for stretching your hay supply. State Agricultural Departments in major cattle producing areas also provide listings of where additional hay might be available for purchase.

Here are some reminders for storing the hay when you get it:

- Soil contact with hay is the most important source of spoilage of hay stored outside. Place bales on crushed rock, a concrete pad or wood pallets, if possible. If you can't avoid storing hay bales on the ground, pick a well-drained area preferably with sandy soil.
- Storing bales near the top of a sloping area reduces the amount of water flowing around them. Bale rows should run up and down a sloping area to avoid trapping surface water.
- Store hay in a sunny location with a southern exposure. Never store under trees or other shady areas where drying can be slow.
- Bale rows should run north to south rather than east to west.

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Good Nutrition Vital for Efficient Reproduction

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