



# Checkpoint<sup>®</sup>

Management & Nutrition  
Tips For Beef Producers



## NUTRITION AND GENETICS BOLSTER COW HERD BREEDING PROGRAMS

Ruth and Gehrig powered baseball to new heights. Rogers and Hammerstein popularized musicals. Lewis and Clark opened the American West. And another twosome—genetics and nutrition—is taking cow-calf breeding programs to new heights.

Spurred by advances in cattle genetics and nutrition knowledge, U.S. cow-calf operators are embracing new research-backed herd breeding management tools to trim labor costs, upgrade herd performance, optimize profitability and establish solid herd breeding programs.

Dan Moser, beef genetics specialist at Kansas State University, rarely addresses genetics without sprinkling his conversation with phrases like “setting business goals” or “taking a business approach” to breeding programs.

“Selecting the right bull is extremely important,” Moser pointed out. “But producers first must set clear-cut business objectives for their breeding programs and then identify what traits their new calves need.”

Producers can determine a bull’s ability to transmit desired genetic traits to its offspring by its above-average EPDs (Expected Progeny Differences) performance records. Moser said EPDs can help forecast whether newborn calves will inherit traits tailored to specific breeding program objectives.

According to Doug Parrett, Dan Shike and the University of Illinois’ beef team, bulls do more than provide half of each new calf’s genetics. Bulls also are the primary source of genetic improvement and change in the herd. When replacement heifers are retained, research shows the sire’s impact on the genetic composition of future calf crops is magnified up to 87 percent.

Shike pointed out that profitable cattle production—an essential component to any breeding business plan—is not a single trait phenomenon. The visiting assistant professor and coach of the university’s judging team said calving ease, increased weaning weight,

milk production levels and carcass trait selection are highly valued traits.

Breeding crossbred heifers also has gained popularity over the last five years. Why? Because, Shike explained, the system’s exceptional hybrid vigor can maximize beef production by influencing increased fertility, hardier calves, rapid calf growth and similar performance traits.

Shike, who earned his PhD degree in beef nutrition, said feed availability should be factored into the breeding master plan. In arid regions or in the wake of prolonged droughts, Shike said producers should favor smaller to moderately sized cows with moderate milk production potential. He said it is much easier to maintain smaller animals in regions with limited feed resources.

“Smaller, easier fleshing cows also will breed back more quickly in arid regions,” Shike remarked. “Yes, there’s fewer pounds, but it’s a good trade-off.”

If severe winter or other stressful conditions arise, producers should step up body condition monitoring and provide needed supplemental nutrition and vitamins before cattle become too thin. Otherwise, reproduction performance will slip, disease can overcome natural immune systems, heifers can fail to breed back and the negative impact will ripple out to future generations.

Purina offers a number of products designed to keep cows and bulls in top condition without overfeeding. Products such as Accuration<sup>®</sup>, Sup-R-Lix<sup>®</sup> and Wind and Rain<sup>®</sup> Minerals, all with

Intake Modifying Technology<sup>®</sup>, will help maintain balanced nutrition, increase grazing time and increase forage utilization. These controlled intake products are all available by contacting your local Purina dealer.

“No matter what supplemental nutritional feed source is required,” Shike concluded, “it may take extra time and money. But failure to meet the cow’s nutritional needs will be far more costly.”



# QUALITY IS RANDY BROWNING'S NUMBER ONE CONCERN — IN HIS HERD AND HIS FEED PRODUCTS

Bar B Ranch is located just about in the middle of the nation, but that's virtually the only thing about Randy Browning's operation that's middle of the road.

His 325-head, 1,100-acre cow-calf operation, located in Appleton City, Mo., is almost 100 percent Angus. In fact, he was named Missouri's Angus Commercial Cattleman of the Year in 2010 by the Missouri Angus Association. So not surprisingly, he strives with everything he does to produce high-quality beef cattle whose meat is safe and pleasurable to consume.

"Everyone has their own criteria when it comes to cattle," Randy told *Checkpoint* recently. "Some just want a big animal to take to the sale barn. I am focused on the end product. I want to raise beef that provide the safest and best eating experience that a person can have, every single time."

He chose to emphasize the Angus breed because its research supports those goals, providing what he believes is a higher quality end product with more choice and prime beef.

"They do a lot of DNA testing, and that's done a lot to improve the breed and make it more predictable and profitable," he explained. "It contributes to daily gains, docility, carcass quality, back fat and ribeye area."

To further enhance the stock in his herd, Browning uses GAR genetics, purchasing bulls from Gardiner Angus Ranch in Ashland, Kans., and Hinkle's Prime Cut Angus in Nevada, Mo. GAR genetics selects the best blood lines to provide dollar beef—an indication of what cattle will finish at and how many extra dollars you can get from them, Randy commented. He has chosen to use natural reproduction techniques, rather than artificial insemination, but he uses some of his cows as recipients for embryo transfer for Hinkle's Prime Cut Angus.

But the breed—and breeding—are just the beginning of Browning's quest for quality. He's done his own research in the form of exhaustive record keeping, which he implemented in the mid 1990s—a few years after taking control of his father's operation, which he said "has been in my family forever."

Those records include everything from weaning dates, birth weights, yearling weights, to breed dates, carcass data and number of calves from a cow. Randy records these on his computer, using specialized cattle producer software. So if he ever wants to look back at a five-year-old cow, for instance, he says he can see "everything I've done to her."

And, he does a lot to them. He calves in the spring and the fall, providing vaccinations at birth and weaning. Adult animals are dewormed and vaccinated twice a year. All animals are tagged at birth, and age- and source-verified through IMI Global, which can bring an additional \$35 on finished animals. Browning himself retains ownership of 70 percent of his cattle but sends them to Midwest Feeders in Ingels, Kans. for finishing; they are then sold to U.S. Premium Beef. He sells the remainder at sale barns. To further control the quality of his operation, Browning raises 100 percent of his own hay.



When Randy talks about the people he does business with, he provides names and locations and recognizes their role in his success. It's apparent he has developed long-term relationships that he values—and that contribute to the quality he seeks.

Standing alongside his breeding stock, feedlot and packing partners is Purina, from whom Randy buys almost all his nutritional products, including Accuration® cattle limiter, Impact® starter, multiple mineral formulations and Sup-R-Lix® liquid protein.

"Purina products are a big part of keeping my cattle productive and healthy every day," he remarked. "Their mineral program is one of the best. Cows get pretty good conception rates on them, and they eat them pretty well. They also do awfully well on the liquid protein."

"Impact® starter is an excellent product, too. It uses limited intake technology, so it makes them eat often, but not a lot. Midwest Feeders (Randy's feed lot) uses Impact® starter, too."

Randy said he uses Accuration® cattle limiter for creep feeding, adding that it delivers better gains from his grass. It also "gives calves a head start, teaches them to eat and makes them easier to wean, while putting on more pounds and taking a little pressure off the cow."

And don't forget the ultimate partner in this successful cattle operation—his wife, Sharon, who will retire this year after teaching kindergarten for 30 years in Appleton City.

Success hasn't come quickly. Nor has it been easy. But Randy has demonstrated the patience it takes to get where he is—and where he wants to go.

"It took a lot of years to get where we are," he asserted. "You have to get a better bull to make better heifers, and that goes on for generations. Each year the progress is a little slower, kind of like baseball batting averages. Batting 100 is easy, but every step you go up the ladder, it gets harder and harder. Plus, you can't just look at one thing. You have to look at the whole picture; and every chance you get, try to improve. It might not help immediately, but in five years you can see the impact of the decisions you made."

"I set out to improve my herd over time. I've had pretty good success at it, and I'm not done, yet."

# CREEP FEEDING:

## AN OPTION THAT MAKES SENSE, EVEN IN TODAY'S ECONOMY

We all know the value of calves is determined by their weight and condition at the time of sale. Those attributes require the right nutrients in the right proportions for calves to thrive and gain.

But many operations lack the optimum quality and quantity of milk and forages to maximize the genetic potential of their calves. And, weight gains and condition improvements that are lost then are never regained. Creep feeding helps producers make the most of the pre-weaning period, when gains are easier and more economical to achieve than later in life.

Some may say that creep feeding, especially with grain, is too costly when corn is selling between \$6 and \$7 per bushel. Nevertheless, considering calf prices that are also elevated—and the greater cost of feed to produce the same gains later in their lives—the benefits of creep feeding make it a management tool producers simply can't afford to ignore.

**To creep or not to creep.** Creep feeding is generally recommended when forage quantity or quality is less than optimal. Quality becomes questionable when forage has become too mature to provide the necessary nutrients, as is often the case in late summer. Quantity is often reduced during winter months or as a result of drought or overgrazing. Both deficiencies create a problem for the growing calf that needs an adequate, balanced diet in order to reach its genetic potential.

Creep feeding is also used in situations where milk production is low, such as with the calves of first-calf heifers and older cows. And, it is preferred by producers who want to achieve calf gains of 30 to 100 extra pounds.

**Enhance weaning weight, marketability, feed efficiency.** It's clear that calves gain more weight, faster when they are creep fed. Estimates of weaning weight gains resulting from creep feeding range from 30 pounds up to nearly 100 pounds per calf. In addition, creep feeding helps reduce weaning problems because calves are already accustomed to feed and have reduced their milk consumption.

The ingestion of roughage that comes with creep feeding also begins to develop the rumen in calves, preparing them to consume appropriate amounts when they arrive at the feedlot. What's more, calves creep-fed with feedstuffs are more marketable; they are already "bunk-broke" and ready to eat feed at auction, helping to maintain weight in the transition from ranch to sale barn. All these things increase the value of creep-fed calves, not to mention the fact that properly de-

signed creep feeding programs can deliver improved feed efficiency.

Other benefits are being investigated. There is some evidence that creep feeding may improve dam body condition and may even result in heavier subsequent calves from dams of previously creep-fed calves.

**Grain or Grass.** Creep feeding may be accomplished most economically by establishing small sections of high-quality forage next to existing pastures that cow-calf pairs are grazing. This can present challenges in terms of finding an appropriate spot and devoting the labor to cultivate it. Assuring nutrient quality and synchronizing pasture nutrients to the appropriate time in calf development can also be difficult, especially in the fall and during inclement weather.

While creep grazing is beneficial, it puts on fewer pounds than creep feeding with feedstuffs. It also lacks the advantage of preparing calves for the bunk.

A variety of feedstuffs are also available for use as creep feeding. To assure the proper nutrients, the selection should take into consideration current forage conditions and milking levels. Palatability is also important in attracting calves accustomed to mothers' milk. In general, larger feed particles are more palatable than finely ground grains; they also reduce dust and waste. Molasses is sometimes added to enhance palatability.

A third consideration is the need to avoid digestive problems. These problems often result from excessive starch consumption, which can cause acidosis. Limiting intake helps to reduce these problems, and is an advantage feedstuffs offer over creep grazing. There are products on the market which limit intake, such as Purina's Accu-Creep, which utilizes Purina's proprietary IM Technology.™ IM Technology™ encourages calves to eat smaller amounts, more frequently, to aid digestion and rumen development.

For more information about Accu-Creep or 4-Square Stocker/Grower—balanced protein and energy supplements to enhance forage digestion, optimize feed efficiency and help your calves reach their genetic potential—contact your Purina dealer or representative.

*Sources: Jane Parish, Ph.D. and Justin Rhinehart, Ph.D., Creep Feeding Beef Calves. Mississippi State University Extension Service, Publication 2524. April, 2009.*

*Greg Lardy, Ph. D., and Chip Poland, Ph.D., Creep Feeding Calves. North Dakota State University. DS-11-97; revised April 2008.*

*Dan E. Eversole, Ph.D., Creep Feeding Beef Calves, Virginia Tech Extension: [pubs.ext.vt.edu/400/400-003/400-003.pdf](http://pubs.ext.vt.edu/400/400-003/400-003.pdf)*

*Creep Feeding for Heavier Calves at Weaning, [www.beeflinks.com](http://www.beeflinks.com)*

## WHEN CREEP FEEDING CAN HELP

- Calf prices are high relative to feed prices
- Pastures begin to decline in quality or quantity
- Dams are first- or second-calf heifers
- Calf gains of 25 to 100 lbs extra are desired
- Growth potential of calves is not being met with milk and natural forage
- Calves are born in the fall, making grazing impossible
- Creep feeding is used 3-4 weeks before weaning to get calves on feed
- Feed conversions of 7 to 10 lbs of feed per pound of gain can be achieved

## WHAT CREEP FEEDING CAN DELIVER

- Increased weaning weights of 30 to 100 pounds
- Enhanced rumen development
- Economical gains compared to later in life
- Calves that are ready to feed at the bunk
- Optimized weight retention from ranch to sale barn
- Easier weaning
- Enhanced marketability of calves
- Better intake limiting when creep feeding with feedstuffs





# SEASONAL TIPS FOR COW-CALF MANAGEMENT

## TOOLS TO INCREASE CALF VALUE DURING THE SUMMER

Managing the calving season is hard work. When it is over, it's always a relief to get the herd out on summer grass. This is a time of rapid growth for the calves and relatively low inputs for the producer. However, while our focus may shift to other farm enterprises during the summer, we can't overlook opportunities to add value, whether it's improving calf quality or increasing weaning weight. Here are a few management practices that can help put more money in your pocket.

**Initial calf processing.** This includes castration, dehorning and utilizing growth-promoting implants in steer calves. The earlier castration and dehorning are done, the easier it is on the calf, especially if it's before flies become a problem (prior to grass turnout). Implanting suckling calves should add 20-25 lbs. each from a single treatment.

**Parasite control** needs to cover both internal and external parasites. Parasites will rob you of weaning weight and have a negative impact on the calf's immune system. Depending upon your location, environmental conditions and parasite burden, there may be some differences in individual ranch programs. However, as a general rule, suckling beef calves should be dewormed twice during the summer. Ideally the first treatment would occur in mid-summer and the second prior to weaning. Adequate fly control measures will also contribute to increased weaning weight.

**Calf vaccination** schedules should take into consideration disease issues on the ranch, normal working patterns and the method of calf marketing. We expect vaccines to be effective, but they have to be handled properly and delivered at the proper time. The basic program will need to cover both viral (IBR,

BVD, PI<sub>3</sub>, BRSV) and bacterial (clostridium) pathogens. If you plan to sell calves as part of a recognized marketing program, you obviously need to follow those guidelines. You should work closely with your herd veterinarian to develop an effective program that prevents calf morbidity, both before and after weaning.

**Monitor for health issues.** Health conditions affecting suckling calves range from a single case to herd outbreaks. Monitor calves on a consistent basis to ensure that small problems don't turn into larger ones. Common issues include foot rot, pinkeye and "summer pneumonia." Work with your herd veterinarian to develop appropriate vaccination programs and treatment protocols to keep these issues from getting out of hand.

**Age and source verification.** There are many resources that can help you manage age and source verification. The process is not related to a national ID system, nor is it a federal program, though entities providing the service must be certified by USDA. The additional charges and paperwork required for age and source verification are well worth your time, especially if you are retaining ownership through the feed yard. Packers will pay significant premiums for age- and source-verified calves.

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NUTRITION AND GENETICS BOLSTER**

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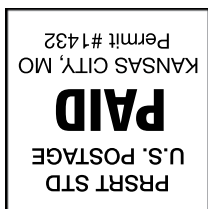
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