



Checkpoint®

Management & Nutrition
Tips For Beef Producers



GOOD NUTRITION NEEDED TO GET MOST FROM COWS AND BULLS

Beef cattle require good nutrition to express their full genetic potential and maximize their reproductive efficiency.

Low reproductive rates, poor growth, and increased illness are often a result of a nutritional imbalance or deficiency rather than a disease or genetics, according to livestock specialists with the Virginia Cooperative Extension Service.¹

These experts suggest that you need to understand basic digestive physiology, types of nutrients, and requirements of the cow in order to be competent on-farm nutritionists. By understanding feeds and ration balancing, you can meet the nutritional needs of your animals in a more cost efficient manner, they say.

Additionally, a fundamental understanding of feeds and rations will help you in evaluating new products, alternative feeds and supplements, say the Virginia experts.

Although proper nutrition and cattle health goes beyond taking care of the rumen microbes, reducing digestive problems and promoting a rumen with a healthy microbe population can prevent many serious problems in cattle. The Virginia beef specialists recommend the following management for helping maintain rumen health:

- Provide a diet that meets the energy, protein and mineral requirements of the animal.
- Make sure water is clean and available.
- Pay attention to fiber levels in diets. A fiber level between 30 percent and 70 percent is preferred.
- Switch from high fiber diets to high grain diets slowly. Change should occur gradually over days or weeks.
- Diets should contain 5 percent or less fat.
- Changing from a high grain diet to a high fiber diet will generally NOT cause digestive upsets, but will reduce performance.
- Do not move hungry or newly received cattle into pastures that contain more than 25 percent of legumes.
- Do not introduce cattle to high percentage legume pastures when pastures are wet.
- Supply cattle grazing pasture

containing 50 percent legumes with ionophores or poloxolene.

- Monitor rumination and fecal output to aid in early detection of digestive problems.

Good nutrition also is important for getting the most from your bulls. Adequate nutrition allows young bulls to more completely express genetic potential for growth, which predicts potential performance of eventual offspring, according to information from the Texas A&M University's AgriLife Extension Service.² Good nutrition also helps puberty begin on time, allowing for moderate breeding use by 15 to 17 months of age. Severe undernourishment may cause irreversible testicular damage in young bulls.

Mature bulls also need adequate nutrition. Severe under feeding and poor grazing conditions that result in dramatic weight loss can lower sperm production and quality. Overfeeding can also reduce sperm quality.

Since during the breeding period, bulls have access to the same diet as the cows, grazing and supplements that produce good body condition in females will also suffice for bulls. At a minimum, daily crude protein intake for mature bulls should be 7 to 8 percent (3 to 4 pounds of crude protein) for body maintenance and 10 percent or more for weight gain, according to the Texas A&M information.

Monitor the bulls' body condition before breeding starts. If bulls are thin, you should begin supplementing to increase body fat. Be careful not to feed to over-fatness, but shoot for a level that gives the bulls a smooth overall appearance. The ribs of adequately nourished bulls should not be visible. This equates to a body condition score of about 5.

Purina offers controlled intake systems nutrition products formulated with IM Technology® to help you get the most from your breeding animals. These include Accuration/Cattle Limiter®, Sup-R-Lix® and Sup-R-Block®.

Visit your Purina dealer today for more information about these and other beef cattle nutrition products.



References: 1. <http://pubs.ext.t.edu/400/400-010/400-010.pdf> 2. <http://animalscience.tamu.edu/images/pdf/beef/beef-bull-mgmt.pdf>

TAKING THE BITE OUT OF HORN FLY LOSSES WITH MINERAL ADDITIVES

One of the things beef producers dread most about the coming warm weather is the advent of troublesome horn flies.

These insects are annoying, to be sure. But, they are more than just pests, they are really “obligate parasites,” who must stay with—and live off of—their host in order to survive. They feed on cattle by cutting through the skin and sucking blood. This is not only painful and distressing for the animal, but also has a direct impact on body condition, and, consequently, on the producer’s bottom line.

“Making blood is an expensive process,” according to Scott Boutilier, vice president of sales and marketing for Central Life Sciences (CLS) professional businesses. “All that blood is lost body mass, weight, meat and muscle that could have been going on someone’s plate.”

As a result, Boutilier says, an estimated \$800 million are lost each year to horn flies.

The gold standard in controlling these pests is S-Methoprene, the generic name for Altosid® IGR, which is registered to a subsidiary of CLS.

The product, originally developed in the late 1960s for mosquito control, was registered by the EPA in 1975 as a cattle feed-through product. Incorporated into cattle feed, Altosid passes through the animals without affecting them, remaining in manure to control horn flies. It does this by mimicking a juvenile fly hormone that inhibits fly larvae from maturing.

“Methoprene by nature is very similar to juvenile insect hormones,” said Boutilier, who studied entomology, chemistry and insect physiology in undergraduate and graduate school. “It’s very complex chemically but environmentally benign. It breaks out into very simple compounds, so it doesn’t have negative effects on the environment.”

In fact, the EPA has determined that the use of methoprene is exempt from tolerance. And, insects have not developed a resistance to Altosid, unlike many other insect control products that kill the adult.

“At the same time,” he explained, “the product is sensitive to sunlight, so delivery and formulation is critical to its performance. And, you have to make sure you deliver the correct amount to achieve the right effect.”

As a result, CLS has created a variety of formulations, all

very specific to their intended uses. In the cattle market, for instance, they created a formula that will pass through and remain in manure. The dosage is low enough that it affects horn flies, but doesn’t inhibit dung beetles’ ability to break down manure. That dosage is typically about 1.1 mg per hundredweight of animal, per day.

Boutilier described the work Purina has done on consumption and intake management as “elegant.” It’s a method they use in their Wind and Rain® Fly Control Mineral tubs, in which Altosid is incorporated. Through taste and physical properties, the method actually controls how much the animal consumes, thereby keeping the nutrients at appropriate levels for the desired effect.

“They’ve made the product attractive, so that cattle will eat it, but only eat so much,” he explained. “Then after a while, they will come back for more. It’s an amazing level of sophistication that has evolved with Purina’s IM Tech (Intake Modifying Technology®) program.”

Boutilier says such methods of incorporating Altosid with pre-existing feeding programs constitute a very cost-efficient way of controlling horn flies.

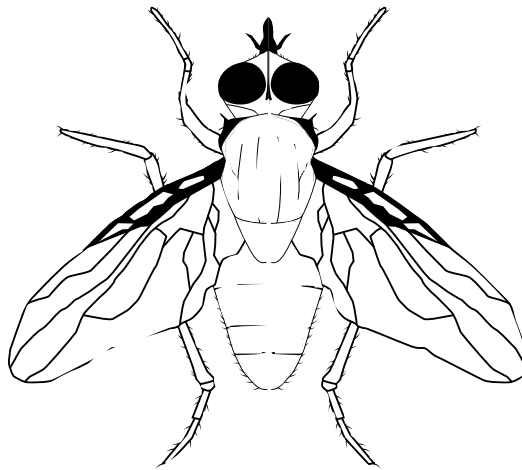
“If you are going to feed an animal anyway, you have no additional labor cost to deliver the horn fly control with feed,” he pointed out. “Plus, this method is so much easier than an ear tag or back rubber. And, every dollar you spend yields \$6-10 dollars in increased weight gain and faster weight gain, so it is a high value solution for cattle producers.”

Boutilier said producers should start administering the product about a month before horn flies start maturing until about 30 days after the first hard frost. That way they can virtually eliminate the horn fly season. He stressed that administering Altosid 30 days after the first frost is needed to make sure the insect doesn’t go into pupae.

“Most cattle producers who start on the program stay on it, because it is effective and delivers a good return,” he concluded.

Customer satisfaction is very high.”

For more information about options for controlling horn flies through mineral supplements, contact your Purina dealer or representative.



Horn Fly: Causes an estimated \$800 million loss to the cattle industry each year.

Altosid® IGR is a registered trademark of Wellmark International.



PURINA

ROCKING K RANCH:

THIS THREE-GENERATION RANCH IS TRULY A FAMILY AFFAIR

Miles Kuschel and his wife Sarah are part of a long—and wide—Minnesota cattle ranching tradition. Along with Miles's parents, Tom and Linda, and grandparents Morris and Stella, they run the 3,200-acre Rocking K Ranch near Sebeka, Minn. They operate a commercial cow/calf operation using rotational grazing methods to improve productivity and minimize expenses.

It all started back in 1946 after Miles Kuschel's grandfather, Morris, returned from serving in World War II. That's when Rocking K Ranch was born.

The purchase of the ranch, back then 40 acres in size, was possible because of money Morris had sent home to his wife, Stella, during the war for just that purpose.

That 40 acres has now grown to 3,200 and is primarily managed by Miles and his father, Tom. Morris is now 87, but still helps out, keeping an eye on cows, and generally making sure everyone stays on their toes, according to Miles, who is 27 and has two daughters, age 3 and 5.

His wife, Sarah, is also active in the operation. Having grown up on a registered Angus ranch herself, she is more than comfortable moving cow-calf pairs on horseback and tagging calves.

Linda, Miles's mother, does most of the ranch's bookkeeping and, along with grandmother, Stella, the cooking, which can be a pretty daunting task, especially during branding and vaccinations when there are 20-30 hungry mouths to feed. Sister Val works on the ranch doing everything from treating cows to operating machinery to branding and gathering.

Rocking K has just over 600 head in their cow-calf operation, 80 percent Black Angus and 20 percent Hereford, for which they use a rotational grazing system. In addition, they raise and feed their own hay, supplementing with alfalfa when weather impedes the hay harvest.

They augment forage with a supplemental feed program that includes creep feed, energy supplements and minerals, starting with creep feeding.

CREEP FEEDING A PROVEN SUCCESS

Miles said they start their calves on Accu-Creep® "once their intakes reach what we need to see." He noted they analyzed the effectiveness of their Accu-Creep program, and found they had optimized their feed efficiency. He said, "We noticed they gained the same weight, but ate quite a bit less of the Purina feed."

For 600 head for 90 days, that difference amounted to over 300 pounds less feed consumed per head with Purina than with the other brand. Miles explained once calves are acclimated to grain, they switch to Accu-Creep to control intake.

MINERALS DELIVER NOTICEABLE IMPROVEMENT

Minerals are another important element in their supplemental feeding program. Fed year-round, with an emphasis on organic minerals, vitamin E and selenium, the results have impressed them.

"Four or five years ago we switched from synthetic to organic minerals, Miles said. "When we started using Availa

4/9, we noticed a real big difference in absorption. The cows seem much more able to absorb organic minerals than the synthetics. They recover from calving faster, and they cycle faster and breed back sooner."

"Plus, the pasture lasted longer, because they were getting more of what they needed from minerals they were able to utilize the forage they were eating better," he added.

Miles said they use minerals, year-round, changing between winter and spring so that the cows get stronger minerals when they are calving.

"Selenium and Vitamin E help the cattle clean after calving," Miles offered. "If the cow has the proper minerals, she will drop the placenta right after the calf is born."

Miles said Rocking K gets custom blends of their products from the local Purina dealer, Leaf River Ag Service. "They've really been great with that; they mix it up however we want it. Their employees even go out and fill the feeders if we need them to."



COMMUNITY AND FAMILY HOLD IT ALL TOGETHER

Their work doesn't stop at the ranch boundaries, though. Miles and Sarah are both recipients of the American FFA Degree, and Miles won the National Star in Agricultural Placement Award in 2004. They serve on the Cass County Farm Bureau Board, Miles as president and Sarah as secretary/treasurer. They also serve on the Minnesota Farm Bureau State Young Farmers and Ranchers committee.

Miles says he loves the rural lifestyle and the ability to be outside as much as he is. He also says the multi-generational culture of the ranch is part of its formula for success.

"Our three generations of experience and ideas working together helps us a lot and keeps things interesting," he said. "We always have three different points of view. Even though he would love to see everything done with a horse and buggy, he is always willing to try to new things."

Miles also credits a business attitude, which has pervaded the operation since the beginning.

"My grandfather is good with numbers," Miles stated. "Any decision he has ever made, he crunched the numbers for. In this day and age that is extremely important. It's no longer just a way of life; it is a business, so you have to look at it that way."



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ANAPLASMOSIS: CONTROLLING THIS INSIDIOUS DISEASE IS CRUCIAL TO PROFITABLE BEEF PRODUCTION

Anaplasmosis is a complicated disease that costs the U.S. beef industry an estimated \$300 million each year and has a nearly 30 percent mortality rate among clinically infected cattle. Vaccines, available on a limited basis, do not provide broad serotype protection; sources of transmission are hard to eliminate; and detection and disease elimination can be equally difficult. Luckily, an antibiotic mineral additive helps control the disease and minimize potential losses.



Characterized by anemia and fever, even abortions and mortalities, anaplasmosis is one of the most prevalent tick-borne diseases of cattle.

It is also one of the most costly diseases for beef producers, according to Denny Hausmann, DVM, Technical Services Manager - Cattle, for Alpharma® Animal Health, which develops pharmaceutical products for food producing animals.

“Each clinical case of anaplasmosis is estimated to cost producers more than \$400 per head,” he said; “for the industry as a whole, the cost could be as high as \$300 million. The illness can result in abortion as well as a mortality rate of close to 30 percent in adult cattle; and its presence in a herd can limit international exports.”

Caused by a rickettsial parasite called *Anaplasma marginale*, anaplasmosis is transmitted by ticks and biting flies or, less commonly, through blood contaminated mechanical vectors such as needles or dehorning and castration equipment.

The organism is tenacious. Vaccines, which are available on a state-by-state basis, will not protect against all serotypes of *Anaplasma*. Once it invades the red blood cells of cattle and other ruminants, it stays there for life. That’s where things start getting tricky.

Sometimes beef producers mistake the symptoms, such as anemia, icterus, fever, and separation from the herd, for respiratory disease because the cattle are breathing rapidly due to inadequate red blood cell capacity, explained Hausmann, who was a practicing veterinarian for 16 years before joining Alpharma. More often, there simply aren’t any symptoms, and older cattle are simply found dead.

“You very seldom see clinical signs in young cattle,” he said. “Where you see the most signs are in older cattle. That’s because the younger livestock are replacing red blood cells at a much faster rate and more efficiently.”

But, even if they don’t show symptoms of the disease, cattle may indeed be infected, and that can spell trouble for the entire herd.

“You can have what we call enzootically stable herds where cattle recover from the disease but become carriers of the organism,” Hausmann said. “So, adults appear normal, but they are carrying the disease and can pass it on to the young calves through ticks or vaccinations. Some cows—about 20 percent—will even transmit the disease intrauterinely, and the calves won’t show clinical signs.”

“So, you can have a herd that looks normal, but is harboring the organism,” Hausmann added. “When you purchase new animals and turn them out with the current herd, if the new animals have never been exposed to *Anaplasma*, the new animals may get infected and die.”

With vaccines supplying limited help, and no complete cure available, how do you deal with this insidious threat? Hausmann recommends a multi-pronged approach, employing the following elements.

Use preventive strategies. Controlling ticks and biting flies will reduce infection; however, Hausmann acknowledges that insect control can be difficult, especially during warm months and in grazing situations. However, proper hygiene can significantly reduce the risk of contamination from equipment.

“Producers should always use good clean needles and change them frequently when vaccinating cattle,” Hausmann recommended. “When cattle are processed and vaccinated at feed yards, for example, cross contamination can occur if cattle are asymptomatic and handlers don’t change needles. Hygiene is equally important when it comes to castration and dehorning equipment.”

Be vigilant in recognizing symptoms. Always be aware of the symptoms of this costly disease, which include anemia, fever, and abortions—even death. If you suspect a case of anaplasmosis, call your veterinarian immediately for an accurate diagnosis.

Control infection with approved antibiotics. Alpharma’s Aureomycin®, a member of the tetracycline family of antibiotics, is the only tetracycline approved for free-choice use in controlling anaplasmosis infection. It is not a treatment, Hausmann explained, but it will help control losses from the disease.

He added that Aureomycin, which has been on the market for more than 50 years, has a zero day slaughter withdrawal at all approved dosages and label claims. That makes it easy for the producer to cull cattle as needed, and without withdrawing the antibiotic. While the drug does not require a veterinarian’s



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ANAPLASMOSIS FACTS

Organism	Anaplasmosis marginale, a rickettsial blood parasite
Transmission	Ticks, biting flies, contaminated needles, equipment
Symptoms	In adults, anemia, fever, abortions, death
Mortality rate	About 30 percent
Recovery	About 70 percent, but cattle remain carriers for life
Prevention	Control flies and ticks, sterilize needles, equipment
Control	Aureomycin, available in Purina mineral formulas
Vaccine	Approval depends on the state; some serotype specificity

prescription, Hausmann advises getting the veterinarian involved in the herd's overall health program.

"Aureomycin is widely accepted as a beneficial management tool for anaplasmosis," he said. "We used to think the disease was primarily geographic, with most cases in the Southeast or Northwest where there are large tick populations. Now the disease has been diagnosed in every contiguous state of the union. We even see some cases in the winter."

One of the easiest ways to administer Aureomycin is through feed additives. Purina provides Aureomycin in several of its mineral supplements; exact formulations vary in different parts of the country. Talk to your local Purina dealer or your Purina representative to learn more about starting your herd on a mineral program that includes Aureomycin® antibiotic.

Aureomycin® is a registered trademark of AlphaPharma®, Inc., a wholly owned subsidiary of King Pharmaceuticals®, Inc.

MAXIMIZING THE USE OF HOME-GROWN FORAGE

Home grown forages in the form of pasture, hay and silage can supply much of the nutrients required to produce a beef animal, according to information from the University of Arkansas Division of Agriculture.¹

Careful management of pastures can result in green forage being available nearly year-round in many cattle producing regions. Allowing cows to harvest the forage themselves from pastures is the most economical and convenient approach to forage management, according to the division. At the same time, "forage stored as hay or silage will be necessary in most operations to support cattle during periods when pasture production is inadequate to meet livestock nutritional needs."

Your forage-management decisions are always influenced by the need to find an acceptable compromise between yields and forage quality, says the division. Forage yield and plant persistence are usually maximized when plants are harvested at mature stages of growth. Forage quality, on the other hand, is usually highest when plants are harvested in a young, leafy stage of growth when forage is high in protein and digestibility and low in fiber.

Your challenge is to manage forages and cattle in a way that optimizes both forage performance and animal performance, according to the division.

A prerequisite when managing home-grown forages is the need to consider nutritional needs of the cattle being raised. Depending on your situation, you may decide to match your forages to the desired cattle, or to match the cattle to the existing forages.

For example, production goals for a cow-calf operation might include maintaining the cow as inexpensively as possible while supporting good reproductive performance and milk production that supports high calf-weaning weights. Lactating cows require more nutrients than pregnant, non-lactating cows.

In general, young cattle, such as stockers, calves, or replacement heifers require higher quality forage than mature cows.

SUPPLEMENTATION

Even high quality forages from the best-managed home-grown systems may be deficient in some nutrients, according to the division. "Accurate laboratory forage testing is vital to knowing exactly which nutrients are deficient so that appropriate and cost-effective supplements can be chosen to meet the nutrient needs of the class of cattle being fed," The division said.

Forage also often lacks in one or more minerals. These can be supplied easily in solid blocks or loose mineral feeders, according to the division, whose recommendations should not be implied as an endorsement of any particular product.

Purina's 4-Square® feeding program for your beef cattle is the culmination of more than 80 years of Purina tradition. Purina has performed the in-depth research to develop programs to meet animal needs in all life stages during all four seasons.

Purina ensures top-quality products to work with your grass or hay in a complete diet. These programs are designed to help you extract the most value possible from your home-grown forage resources by optimizing animal performance while enhancing forage utilization.

Purina also offers a comprehensive line of beef cattle minerals in its Wind and Rain® products. Wind and Rain® cattle minerals' large particle size and special formulation keeps the mineral from blowing out of the feeder. Since the moisture from rain or snow passes easily through the mineral, cattle continue to consume it even after it's been wet. This reduces waste.

Talk to your Purina dealer today and discuss how these and other economical beef cattle nutrition programs might fit with your beef cattle business goals.

Reference: 1. http://www.aragriculture.org/forage_pasture/Management_Guides/Forages_Self_Help_Guide5.htm



PURINA

INCREASE PROFIT POTENTIAL BY CREEP FEEDING NURSING CALVES

It's a tried-and-true practice that helps achieve optimal weaning weights and forage utilization

Beef producers are always looking for better ways to cultivate healthy calves, calves that bring top dollar and boost their bottom lines. In a perfect world, where high quality forage is always plentiful and calves are born to prolific milk producers, that task doesn't present insurmountable challenges.

Unfortunately, that's not always the case.

All dams aren't created equal. Some beef cows produce considerably more milk than others, giving some calves a "leg up" and putting others at a disadvantage. Supplementary feeding can help make up for those deficits in nutrition and energy.

Milk isn't enough. Even when cows are producing milk at acceptable levels, they can only supply about half of the nutrients their calves need, according to an analysis published by Dan Eversole, Extension Animal Scientists at Virginia Tech University.

"Milk from a lactating beef cow furnishes only about 50 percent of the nutrients that a 3-4 month-old calf needs for maximum growth. The remaining nutrients must come from elsewhere if the calf is to realize its genetic potential for growth," his article states.¹

In addition, after the first 60 days of the calf's life, the cow's milk production begins to taper off, further compromising the calf's nutrient and energy intake.

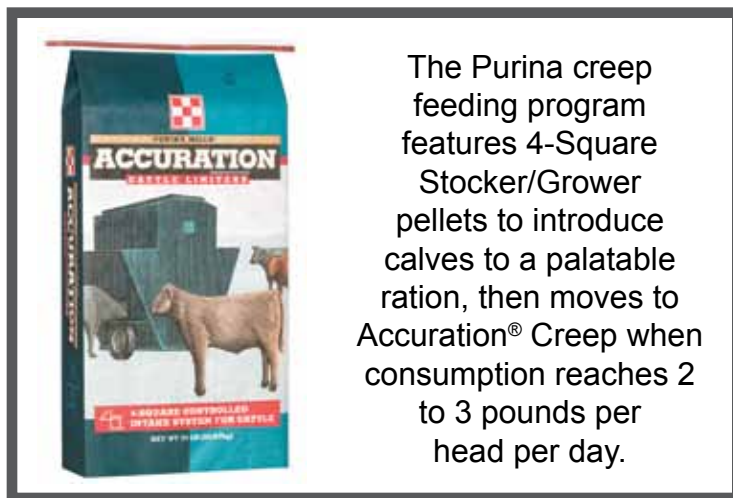
"Studies have revealed that maximum milk production of beef cows occurs during the first two months after calving and then declines. The energy and protein requirements of a growing calf increase well beyond the milking potential of most beef cows to meet the nutritional requirements of calves from birth to weaning."²

Eversole points out that the average beef cow produces about 13 lbs. of milk a day during a 205-day suckling period. And, while 10 lbs. of milk are required by a 100 lb. calf to meet daily energy and protein requirements, a 500 lbs. calf needs 50 lbs, leaving what he calls a "hungry calf gap" of almost 40 lbs.

Supplementing forage. Quality pasture is the best and most economical source for augmenting the nutrition calves receive from milk. However, location, seasons and weather patterns can all affect the quality and quantity of forage.

In spring-calving herds, for instance, when calves start switching from mother's milk to grass often comes right at the time when pasture quality and quantity are deficient in the proper nutrients. In addition, Eversole says the developing rumen of nursing calves often cannot digest the amount of forage roughage it would take to satisfy nutritional needs not met by the calf's milk intake.³

Supplementing with creep feed. Since nursing calves can't always achieve normal weaning weights for any of these



The Purina creep feeding program features 4-Square Stocker/Grower pellets to introduce calves to a palatable ration, then moves to Accuration® Creep when consumption reaches 2 to 3 pounds per head per day.

reasons, and when producers want to give their calves an extra boost, supplemental creep feeding is the logical answer.

Creep feeding, when administered properly, has proven an effective strategy for protecting and supporting optimal weaning weights in calves born to young or very old mothers, or when pasture conditions are poor. Male calves and crossbred animals respond best to creep feeding.

Timing is everything. Utilizing special rations and special feed units, gates or buildings that allow only young calves access, creep feeding is generally started when calves are 2-3 months old. That's when their nutritional requirements approach the first peak of their lifetime; it's also when their mother's milk production begins to decline. Nutritional stress on the mother will be heightened as she conceives her next calf. And, without creep feeding, nursing mothers and calves compete for the same food.

Location. Location. Location. It's important to locate your creep-feeding unit in a place where calves will notice and use it, and where they will be able to eat at their leisure, without being rushed. That means placing it in an area where the herd congregates, such as near a watering location, hay bunk or even in a shaded pasture.

Choosing the right formulation. Many creep-feed formulations are commercially available. Your choice should be based on such factors as the age and breed of the mother, pasture conditions and weather. Purina offers options that are suited to almost any producer's situation. Talk to your Purina dealer or local representative to find out more about the creep feeding solution that's right for you.

References: 1. Creep Feeding Beef Calves, by Dan E. Eversole, Extension Animal Scientist, Virginia Tech University, May 1, 2009, www.pubs.ext.vt.edu/400/400-003/400-003.html 2. Ibid. 3. Ibid.



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GOOD NUTRITION A KEY ELEMENT IN SUCCESSFUL RE-BREEDING

It goes without saying that the profitability of cow-calf operations depends on the number and quality of calves they produce. Ranchers have to make sure they are maximizing every calving opportunity in order to keep their bottom lines healthy.

The largest single determinant of how many calves are conceived is the overall condition and health of the cows. Unfortunately, many producers give too little attention to the nutrition and condition of their cows prior to conception, and suffer the financial consequences as a result.

Research has demonstrated that cows in poor body condition are slower to conceive than others. Specifically, multiple studies have shown that more than 30 percent of cows in thin or moderate condition at calving will skip an estrous cycle. That loss of 21 days translates into calves that weigh about 50 pounds less at the time of sale. It also means they won't achieve a 365 day calving interval.¹

The cost of both these results can mount up. The reduced calf weight is an obvious loss. But the lost 21 days in the breeding cycle can ultimately cost producers a lost year for that cow, according to Justin Sexten, State Extension Specialist-Beef Nutrition at the University of Missouri-Columbia.

"If she doesn't breed back until 100 days, she's calving 21 days later in the calving season. Let's say she does that over 3 years. At end of the third year, she will not breed back because she is outside the 60-day breeding season," he explained. "Then she runs the risk of working her way out of the herd in a controlled breeding season."

Sexten says breeders need to pay greater attention to body condition and nutrition in the 60-90 days prior to calving in order to reduce the incidence of late re-breeding.

"The cow needs to calve between a 5 and 6 body condition score (BCS) to give her adequate fat reserves to get her through the 80 days after calving and before breeding season," he said. "After calving, the priority of nutrients goes to milk production."

FORAGE TESTING CAN HELP

In addition to BCS scores, a method for increasing the likelihood that cattle have adequate nutrition is through forage testing, according to Sexten. He notes that nutrients in forage will vary, according to areas of the country, soil and weather.

There are some general parameters about forage content, he points out. In the eastern United States, for instance, many forages are deficient in energy; in the West, we are more concerned about protein deficiencies.

But, forage testing is the only way to know for sure what nutrients your cattle are getting, he says, and therefore, what supplements they need. When forage is inadequate in nutrients,

supplementation, based on forage testing, not only can enhance the condition of the herd, but it can also help the cows utilize the forage they do have.

"In an Oklahoma State study, when they provided protein for cattle on poor quality forages, forage intake went up, because forage digestibility was enhanced due to the protein supplements," Sexten elaborated.

SORT COWS BY MANAGEMENT GROUP

Another method Sexten recommends, prior to calving, is sorting cows into management groups, based on their body condition scores. He says it is a cost-efficient way to make sure the cows are getting fed relative to their condition.

"I would argue that most producers can go into their herds and determine which cows are fat enough and which are too thin to reproduce," he said. "Then provide supplementary feed for the thinner cows for 60 days prior to calving. By not feeding cows that are fat enough, there are no additional costs for product or labor, and it's a better way to target nutrients to the cattle that need it."

If producers supplement for the entire herd, he points out, half may be getting overfed. At the same time the thinner cows are not getting the added benefit of the feed the fatter cows are receiving.

PREG-CHECKING AND THOROUGH RECORD-KEEPING CAN IMPROVE EFFICIENCY

Cost efficiencies can also be achieved through preg-checking and keeping thorough records. Similar to sorting into management groups, preg-checking can help producers target their feeding and supplementation program appropriately.

"If we don't pregnancy-check, we don't know until calving if a cow bred back," Sexten clarified. "So, we run the risk of feeding that cow for 100 days before it becomes clear she is not going to calve. You wouldn't keep an employee around that doesn't come to work for three months."

If the cow is not bred, then you can evaluate your nutrition program to find out what, if anything, went wrong, he says. Further, in order to determine the source of the problem, producers need to keep accurate records of seasonal body condition, forage quality and supplementation programs used, as well as what bull was bred to the cow.

"If we don't know these things, it becomes difficult to determine if—and where—nutrition went wrong," he concludes.

References: 1. Nancy Noecker, Cow Calf Specialist, Ontario Ministry of Agriculture, Food and Rural Affairs, "The Breed Back Blue-Avoid Calving and Breeding Problems," July 10, 2009. <http://www.omafra.gov.on.ca/english/livestock/beef/news/vbn0709a2.htm>



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PURINA INTRODUCES THE NEXT GENERATION OF WIND & RAIN® MINERALS

The health and productivity of your herd depends on the nutrition package you provide. A properly balanced mineral supplement helps to assure your cattle receive the nutrients they need for your specific situation. To that end, Purina research is constantly looking for the best ingredients, and the most effective levels of those ingredients, to assure your cattle perform up to their genetic potential.

Recently, Purina introduced the “Next Generation” Wind & Rain® Minerals. The new formulations offer consistent mineral consumption, balanced nutrition and improved weather resistant capabilities, all in a new, stronger bag for less wear and tear during shipping and handling.

Consistent mineral intake is critical to meet daily requirements, animal-to-animal and day-to-day. Some animals will eat more of a free-choice product to achieve those requirements, and others may reject the same formulation, both resulting in performance deficits and unnecessary out-of-pocket expenses. Research and field trials have shown the new Wind & Rain formulations reduce intake variation from animal-to-animal

by 25 percent. In other words, proper intake is achieved without encouraging over-consumption, resulting in increased performance potential at a lower cost.

These new formulas are so fine-tuned that they contain all of the essential macro and micro minerals, at proper levels and ratios, designed to address the mineral deficiencies in your forages. They are the most precisely formulated minerals ever offered, so your cattle’s nutritional requirements are met every day throughout the year.

Already recognized as the industry leader in weather-resistant mineral formulations and technology, Purina now offers the most advanced products available. Unlike conventional minerals, a larger particle size keeps the mineral from blowing out of the feeder, and the new formulation assures the mineral will remain palatable, even if it gets wet. Cattle will still eat the product, so Wind & Rain® mineral products help to protect your mineral investment.

Easy to absorb, palatable, predictable and reliable – those are the benefits you get from Purina’s “Next Generation” Wind & Rain® Minerals. Talk to your local Purina dealer today to learn how these mineral products can help you achieve your performance and profit goals.



Maximizing the Use of Home-Grown Forage

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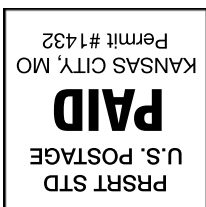
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