



PHOTOS BY SHAUNA ROSE HERMEL

Creep-Feeding Options

Pick the right ration to fit your program.

by Brooke Byrd

If using a creep-feeding program, it's important to carefully choose your creep ration and feeding plan based on how you manage your operation.

"Creep rations are formed on a nutrient basis," says Twig Marston, Kansas State University Extension beef specialist. He says rations usually begin with 12%-16% crude protein (CP), depending on what protein is available in the forage.

David Lalman, Extension beef cattle specialist with Oklahoma State University, encourages adjusting protein content as forage needs change. If a calf's daily requirement for protein is 18%, forage with 3%-5% protein simply will not be enough.

But, if forage is of high quality, feeding too much protein in creep could be a waste of resources. For his region, CP content in the tall-grass prairie will be much lower in March than in May, moving from approximately 3% CP to almost 18% CP later in the year.

Typical sources of protein in creep feed include soybean meal, cottonseed meal, linseed meal, wheat middlings, corn

gluten feed and distillers' dried grain, Lalman says.

Marston recommends a 40%- to 50%-energy creep ration, which provides about 75% of the total digestible nutrients (TDN) required. "Energy usually comes from starch or digestible fibers," he says. While corn is the mainstay, there are many coproducts that can also be used, such as wheat middlings, soy hulls and oats.

When thinking about energy in a creep feed, Lalman strongly suggests adding

indigestible fiber. "If calves just eat straight ground corn, they could wind up with acidosis and founder if they consume too much," he says. Putting a small amount of indigestible fiber, usually around 5%, in creep feed will dilute the energy. Possible ingredients include cottonseed hulls, peanut hulls or ground corn cobs.

Ingredient prices vary almost continuously according to current market conditions, Lalman says. Digestible fiber byproducts and other feedgrains are priced

based on the price of corn, and soybean meal sets the price for ingredients like cottonseed meal and distillers' dried grain.

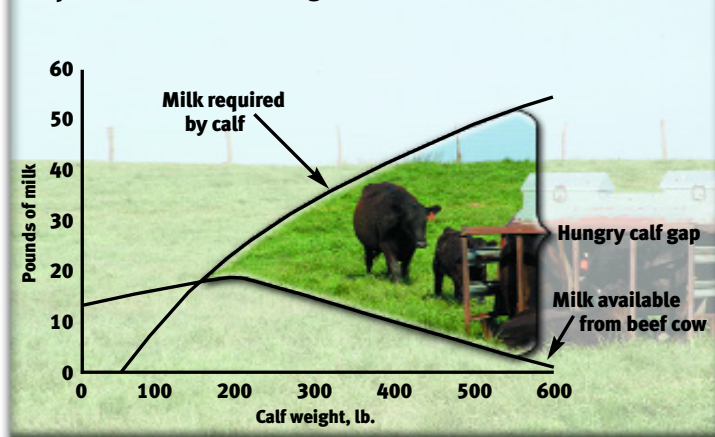
Additive options

"Almost all the creep feeds will have a vitamin-and-mineral package," Lalman states. "Vitamin A is the biggest concern. It's really important during the winter and late summer, when forage is going dormant and quality is declining."

Lalman says creep feeds also should contain small quantities of calcium (Ca) and phosphorus (P), as well as

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Fig. 1: Milk yield of a typical beef cow vs. nutrient requirements of a nursing calf



Source: "Creep Feeding Beef Calves," by Dan Eversole, Publication No. 400-003, February 2003, Virginia Tech.

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copper (Cu), selenium (Se) and zinc (Z), which are especially important if cows are fed low-quality forage.

Other feed additives include ionophores, which can be purchased commercially. Lalman explains that ionophores reduce the production of methane. “A ruminant animal produces methane, and that’s basically wasted energy,” he says. “With lower methane production, you have improved efficiency of the entire diet.”

Some brands of ionophore contain coccidia control to prevent coccidiosis, Lalman notes. “Some people would also include some chlortetracycline, particularly in any stage of production when you expect high stress,” he says.

Yeasts are sometimes used to stimulate rumen fermentation. While an option, Lalman says results haven’t been consistent.

Lalman has seen many different types of feed used, like baby formula byproduct or barley malt sprout pellets. “There are local byproducts available almost everywhere,” he says. “You just have to make sure you do your homework and know the potential benefit or dangers that feed could represent.”

Examining intake

One of the main concerns for producers feeding creep is actually getting their calves to eat. “It takes probably 30 days for the vast majority of calves in the pasture to figure out something pretty good is in there,” Lalman says. “It is important to have a very palatable feed.” Wheat middlings, soybean hulls, corn and milo are some of the feeds that calves find very palatable.

Adding molasses can be a good way to increase the palatability of a highly specialized feed, he says. “It just keeps all the dust down, sticks it all together so the vitamins and minerals stay blended like they should.” He advises using only about 4% molasses, as any more can get sticky and have a difficult time flowing through a feeder.



► For a 220-lb. calf to gain 1.8 lb. per day, it must consume about 7 lb. of a ration providing 1.12 lb. of protein, 2.72 megacalories (Mcal) net energy for maintenance (NE_m) and 1.66 Mcal of net energy for growth (NE_g) per day, according to University of Nebraska NebGuid3 G74-166, “Creep Feeding Beef Calves.” That means a ration that is about 70% TDN and 14%-16% CP.

The way the creep is fed can also have an effect on intake, Lalman explains. “Pelleting will result in slightly higher intake compared to textured feed or non-pelleted feed,” he says. The feed blend is ground before being formed into pellets, and smaller particles pass through the digestive track more rapidly, so calves can eat more.

Lalman suggests giving the calves a week’s worth of feed and checking every two or three days. “What you don’t want to do is get calves started on creep and then leave the feeder empty for a couple days in a row,” he says. Doing so extends the training time and could cause problems with acidosis.

If feeding calves in mid- to late summer, when there is abundant, moderate-quality forage, Lalman expects to see calf consumption gradually increase from 1.5% to 2% of body weight. If feeding during late winter, with little or low-quality forage, he says creep might be consumed at 2% to 2.5% of body weight.

If a producer is worried about calves getting too fat from that much intake, using salt as an intake limiter is an option. To limit

intake, Marston says to add about 4% salt to the creep feed at first. “It takes some management to get the right amount of salt in there to get them down to the intakes that we want,” he says. In feeding trials he performed, to hold feed intake levels down to the desired amount, he added as high as 12%-14% salt to some feeds. “That’s a lot,” he says, “and it’s really hard on creep feeders made out of iron.”

However, Marston still recommends it as a good way to reduce intake. “You can feed that much salt, and you’re not going to have a toxic effect,” he notes.

Feeding methods

Lalman says most producers use commercially available gravity-flow creep feeders, but he has known people to hand-feed calves in small paddocks or to use homemade creep gates. “The most important thing is to match the size of the creep feeder or the number of creep feeders to the group of cattle that are in the pasture,” he says.

He recommends having one creep slot available for every 3-4 calves being fed. Initially, Lalman recommends placing the feeder by a water or shade source, or any other place where cattle naturally congregate, and then gradually moving it to avoid destroying or overgrazing a single section of pasture. Most commercially made feeders are easily moved, he says.

Picking the right ration for a specific operation is the key to success, Lalman notes. Once ingredients and ration formulations have been decided, he says creep-feeding is a good tool for use “anytime you want to grow calves at a faster rate than milk production and forage quality allow.”

Table 1: Sample creep ration for free-choice access

Feed type	Percentage of diet
Corn	38.75
Wheat middlings	27
Cottonseed hulls	10
Alfalfa pellets	10
Soymeal	9
Cane molasses	3
Limestone	1.75
Salt	0.5

Source: Oklahoma State University.

Table 2: Sample creep ration with salt as an intake limiter

Feed type	Percentage of diet
Corn	23
Wheat middlings	33
Soybean hulls	21.25
Soymeal	13
Cane molasses	3
Limestone	1.75
Salt	5

Source: Oklahoma State University.