

Too Stressed to Eat

Experts share tips on proper postweaning nutrition.

by Melissa Leander



Getting fresh calves to eat postweaning is a challenge, and calves off feed translate into loss of profit for the producer. The weaning period is one of the most stressful periods in a calf's life, and when it doesn't eat as a result, a number of problems ensue.

"Depending on weaning and marketing methods, cattle can express varying degrees of shrink, dehydration and stress if not given a proper nutritional program," says Shane Gadberry, Extension livestock specialist at the University of Arkansas.

Fortunately, researchers have discovered the secrets for helping calves get on track with good nutrition programs.

Nutrient requirements

"The challenge for nutritional programs is to provide a highly palatable feed that stimulates intake, provides critical nutrients, reduces the stress level of calves and helps them begin to perform quickly," says Tom Troxel, Extension beef cattle specialist at the University of Arkansas.

Weaning and shipping do not seem to increase the total requirement for most nutrients; they do, however, increase the needed concentration to ensure total requirements are met as the calves reduce intake within the first week of weaning.

Producers need to determine the condition of their calves in the preconditioning program to determine nutrient needs.

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"There are two main types of calves going into a receiving program: young, light calves and larger calves that have been eating creep feed," Troxel says.

The key nutritional considerations for young beef calves (less than 300 lb.) are that protein and energy requirements are high and roughage levels relatively low.

Typically, calves weighing between 400 and 550 lb. should easily recognize and consume hay. If a high rate of gain is not critical and grass hay is available, a program for calves can be designed with free-choice hay and a supplement, says Troxel.

Under non-stressed conditions, animals allocate nutrients in the following order — body maintenance, pregnancy, growth and then immune response. When an animal becomes sick or

stressed, the order of nutrient use shifts to body maintenance, pregnancy, immune response and then growth. That's why, when a calf is stressed, growth is reduced or stopped completely.

Feeds should be formulated to contain at least 20% crude fiber, 12% crude protein and 62-65% total digestible nutrients (TDN), according to an Auburn University survey. This combination can be met in any number of ways such as hay, commodity feedings or a pellet, dry feed.

Other important factors to consider in a diet are vitamins and trace-mineral supplements. These supplements are essential to immune response. "Research has shown that vitamin E in receiving diets can improve gain and sometimes reduce sickness in stressed cattle," Troxel says. Levels of vitamin E fed generally range from 300-400 international units (IU) per head per day.

Minerals such as calcium, phosphorus, salt, copper, zinc and selenium all play roles in immune response. These minerals can be fed free choice in a mineral feeder or mixed into a ration.

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"All receiving rations should contain a coccidiostat to subdue coccidiosis," Gadberry says.

Range of options

The diet should be based on farm available feeds if possible, according to the Auburn study. But, if that's not an option, a commercial diet will work.

"In Arkansas, many larger scale producers receiving weaned calves are using commodity feed based programs utilizing byproducts," Gadberry says.

Most common commodity programs use corn gluten feed, distiller's grain, hominy, soybean hulls, corn and cottonseed meal. Producers choosing to use this type of feed and also turn cattle onto grass will utilize these feedstuffs as a component of a supplement.

Producers with calves in a dry lot generally blend a total mixed ration using hay at various levels in the final diet. When starting weaned calves in a dry lot, feed free-choice hay out of the bunk for the first three to five days until cattle have settled, introduce the feedstuff on top of the hay and gradually increase feed as calves increase intake. Finally, after calves have reached the desirable intake, hay should be fed free choice, says Troxel.

A final option, and one for smaller producers, is a medicated, commercially manufactured ration such as MFA Inc.'s Cattle Charge, which features a high-energy, low-starch, highly digestible fiber product that fits most small producers' wants and needs without the hassle of creating a ration.

When designing a nutritional program, remember to take into account management experience and facility limitations for each operation. Many operations will have limited options, and compromises must be made between ideal nutritional programs and feasible ones.

Using these recommendations should help in designing a nutritional program for stressed cattle. "The goals are to reduce sickness and provide sufficient weight gain that prepares cattle for profitable performance," Troxel says.

"The sooner we can reduce stress and understand nutritional requirements, the quicker the animal restores its normal intake levels, which result in better growth rates," Gadberry says. **HW**