

## **Cattle Business in Mississippi – September 2004** **“Stocker Cents” article**

### **Nutritional Management of Newly Arrived Stocker Cattle**

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Stockering describes a management system that takes young, lightweight calves to a desired weight primarily on forage-based diets. After calves reach a desired weight or at the end of the grazing season, they are sorted into uniform groups and placed in feedlots or used as herd replacements. In general, most of the calves entering stocker programs are newly weaned, commingled with calves from many locations, deprived of feed and water for several days, and exposed to many diseases for the first time. Many bull calves are still intact, many calves still have horns, and lots of incoming stocker calves have never received a vaccination. Stocker calves must adapt to new and different diets, adjust to new surroundings, establish a new pecking order, and acclimate to changing weather conditions.

Successful stocker operations have a plan that requires prior preparation. The plan should include:

1. Properly designed facilities for ease of handling newly received cattle.
2. A nutritional program to address the special needs of stressed calves.
3. A program designed for management and care sick cattle.
4. Personnel trained in identifying and handling sick cattle.
5. Targeted marketing and risk management strategies.

A well-designed nutritional program is a vital part of a successful stockering enterprise. The receiving period is a unique and challenging period in a calf's life. Proper nutritional management of stocker calves at receiving time is fundamental in improving stockering profitability.

#### **Receiving Diets**

Stressed calves have special nutritional problems. In most cases, calves have had low feed and water intake from one day to several days. Upon arrival, calves should be placed in small lots with adequate shade and clean water. Calves over 400 lbs. should be able to easily recognize and consume hay and should have access to good quality grass hay to stimulate proper rumen function. Calves will find water and hay easier if they are placed around the fences. Let the calves rest upon arrival, and plan to process them the next morning.

Calves must be able to quickly recognize and consume feed. On average, feed intake of newly received calves is low. Because of this, diets for newly arrived stocker calves should be formulated to maximize intake and provide greater concentrations of required nutrients. Receiving diets must be highly palatable, stimulate intake, provide acceptable levels of critical nutrients, and minimize the potential for nutritional disorders. Generally,

receiving diets containing over 55% concentrate can lead to digestive problems, which result in higher medication costs. Although cottonseed hulls are relatively low in nutrient value compared to other feedstuffs, they can serve as a good fiber source or “scratch” factor to stimulate gut movement and reduce the risk of acidosis. Cottonseed hulls are very palatable to cattle and can work as an appetite stimulant as well. Pelleting ingredients such as soybean meal, minerals, and other additives can promote intake as long as the pellets are not too hard or large (diameter of pellet should be ½ inch or less). However, pelleting roughages reduces the “scratch” factor, so any pelleted diet needs to include at least two to three lbs. of long stem hay per day.

Diet formulation should take the age and size of the calf into consideration. As a general rule of thumb, receiving diets should be formulated so that the calf receives at least maintenance requirements for protein, vitamins, and minerals when feed consumption is 1.0 to 1.5% of body weight. Lightweight (350 lbs. or less) and early-weaned (weaned at or before four months of age) calves may need more nutrient dense diets than larger, later-weaned calves. These lighter calves require higher percentages of protein and a good source of digestible energy in their diets than larger calves. For lightweight calves, a diet with free-choice hay as the main ingredient is often not utilized as effectively as a complete, mixed diet that contains higher levels of concentrates. A complete, mixed diet for lightweight calves has the added advantage of reducing the possibility of calves sorting roughage from grain. If ground hay is used in a mixed diet, then do not over grind. Leave 1 ½ to 2-inch stem lengths, and check to see if molasses needs to be added to control any dustiness.

The source of protein is also critical in receiving diets. Non-protein nitrogen (urea) is not recommended in receiving diets for calves under 600 lbs. and should be avoided altogether for feeding lightweight calves. Plant protein sources such as soybean meal, cottonseed meal, and alfalfa are acceptable protein supplements for these calves. For young calves, soybean meal is preferable to cottonseed meal because of the potential for problems with gossypol from cottonseed meal, particularly in calves under 400 lbs.

Providing proper salt and mineral supplementation is an essential component of a good nutritional program for stocker calves. Phosphorus levels are typically low on forage-based diets, so next to sodium and chloride, phosphorus is a key mineral to supplement to balance the diet. Trace minerals such as zinc and copper along with vitamins A and E are also important in meeting the nutritional needs of stocker calves.

## **Feeding Management**

Adequate bunk space is an important consideration in feeding management of stocker calves. A good guideline is to provide 18 to 24 linear inches of bunk space per calf. This limits crowding out of animals at the bunk and allows timid cattle more of an opportunity to feed. Cattle should be fed at approximately the same time each day to establish a routine, consistent eating time. Twice-a-day feedings can be worthwhile during the first two to three weeks of the receiving period for highly stressed, young, or lightweight cattle. Sick calves may be slow to come to the feed bunk, so it is useful to observe

feeding behavior to help identify potential health problems. Feed bunks should be closely monitored, and any moldy feed, manure, or trash should be removed from feeders.

Good stocker cattle nutrition and health go hand in hand. Next month “Stocker Cents” will address receiving health programs for newly arrived stocker cattle. For more information on stockering, contact your local Extension office.