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Feeding Programs To Help Reduce Weaning Stress

by W.F. Brown and F.M. Pate
IFAS, AREC-Ona



For questions or comments regarding this publication contact [William F. Brown](#) or [Findlay Pate](#)

Calves are placed under significant stress at weaning. Although by weaning age calves are consuming a large portion of their diet from grazed forage, they still receive nutrient-rich milk from the cow. Calves generally will not eat much for up to a week after weaning. This places stress on the calf, and increases chances for health problems especially if there is cold weather or rain, and can result in significant weight loss by the calf during the first few weeks after weaning. If heifers are to be bred as yearlings to calve at two years of age, any weight loss at weaning reduces their chances of reaching breeding weight by five to six months after weaning.

Over the past six years, we have conducted experiments investigating calf performance during the first 30 days after weaning. This article summarizes some of this work and gives observations on appropriate feeding programs. In all experiments calves were placed on bahiagrass pasture at weaning and fed stargrass hay plus the supplements described below.

Many calves in Florida are fed a liquid supplement during their first winter after weaning. In one experiment, a liquid supplement was compared to a commercial dry pelleted feed during the first 30 days after weaning. Prior to weaning, one-half of the cows and calves had access to a liquid feed while one-half did not. At weaning, one-half of the calves from each group were fed a molasses-feathermeal-urea slurry and one-half were fed a commercial 14% crude protein pellet. Calves fed the slurry during the first 30 days after weaning did not consume enough (Table 1). Also, having access to a liquid feed before weaning did not have an effect on consumption of the slurry after weaning. Calves fed the pelleted feed gained 0.6 to 0.8 lbs/day, while calves fed the slurry lost weight during the trial. From these results we recommend that a liquid feed not be the sole source of

supplemental feed for calves during the first 30 days after weaning. However, if a liquid feed is to be fed to calves during their first winter after weaning, it is a good idea to have the liquid feed available in the weaning pens. This helps to familiarize the cattle to the liquid feed.

We have also investigated alternative feedstuffs as potential weaning feeds. Soybean hulls are a by-product of the soybean processing industry. They are high in digestible fiber, and we have found them to be equal in supplemental energy value to corn when fed at 6 to 8 lbs/head/ day to yearling cattle. This year we compared soybean hulls, with and without additional protein, to a commercial pelleted feed. Feed intake was restricted for all cattle to 8.0 lbs/day. Cattle fed the soybean hulls alone gained the same as those fed the commercial pelleted feed (Table 2). In this trial, soybean hulls were deficient in protein because cattle fed soybean hulls plus cottonseed meal gained more than cattle fed soybean hulls alone. Current price of soybean hulls is \$95-100 per ton delivered in bulk loads. Soybean hulls work very well in a self-feeder where a producer has the storage facilities and equipment to handle a 20-ton bulk load.

Including an antibiotic in the weaning feed provides a safety factor in case the weather turns cold and/or rainy or respiratory problems develop in the cattle. We did not include an antibiotic in the weaning feed this year, but we had dry, warm weather at weaning time. When using a alternative feed such as soybean hulls including items such as supplemental protein or antibiotics will influence the price of the final feed, and is a decision that each producer must make when comparing this to a commercial feed.

TABLE 1. Response of calves fed a liquid feed or a dry pelleted feed during the first 30 days after weaning.				
	No liquid feed before weaning		+ liquid feed before weaning	
	Dry Feed	Slurry	Dry Feed	Slurry
Intake, lbs. dry matter	8.5	3.2	7.8	2.9
Daily gain, lbs.	.8	-.7	.6	-.8

TABLE 2. Response of calves fed soybean hulls or a dry pelleted feed during the first 30 days after weaning.

	Soyhulls alone	Soyhulls + 1.0 lb. cottonseed meal	Commercial pelleted feed
Intake, lbs. dry matter	8.0	8.0	8.0
Daily gain, lbs.	.9	1.3	.8