

# FEED FOR THOUGHT

News For Cattlemen From Suga-Lik® A Product Of U.S. Sugar Corp.



## Florida Range: Nutritional Realities

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The major limiting factor for producing calves on Florida range is the low nutritional value of range forage. A lactating cow can not regain weight lost during winter, provide milk for a nursing calf, and conceive in spring while grazing range. Early research at the Range Cattle Station at Ona showed that when cows grazed pasture in combination with range, pasture could provide the nutrition needed to get cows in a weight-gaining condition so they would conceive and regain the weight that was lost on range in winter. This resulted in the system of grazing range in fall and winter (October to February) and bahiagrass pasture in spring and summer (March to September) that is now common in Florida for mature cows. Although there are currently few ranches in Florida that use range for grazing, there are still many acres of range utilized. About 2% of Florida ranchers own 48% of the cattle, and these ranchers own 75% of the range.

When dry-pregnant cows come off bahiagrass and onto range in fall, range forage is about 7% crude protein and 45% TDN. For perspective, this is not much different from that of mature bahiagrass in the fall. These levels are below the book values for protein and TDN requirement of cows in the last third of pregnancy, and cows will lose weight in the fall. From a practical standpoint, nutrition from range forage is

adequate if the balance between acceptable weight loss and economics are considered. However, after these March-May bred cows begin to calve in late December, nutritional needs created by lactation far exceed the forage resource, and the consequences of the low nutritive value of range forage can not be ignored. It is clear that a cow cannot eat enough range forage to obtain sufficient protein and TDN.

Cattlemen can increase the amount of range forage through good range management practices, but there is little that can be done to range forage that will result in lasting improvement in nutritional value. Ranchers know the value of burning to increase crude protein and TDN of forage, but the nutritious regrowth is very slow in late winter. In reality, the limited regrowth provides good grazing for a very short period of time, and overgrazing can negatively affect the desirable range grasses. Until cows are rotated to bahiagrass pastures in late February, the only other practical way to limit weight loss of cows on range is supplementation.

Results of research at Ona indicate that mature (4 years or older) cows responded equally well to a molasses-based liquid supplement containing either urea or natural protein. These supplements, which contained 30% crude protein (dry mater basis) and were fed at 3.5 lb/head/day from mid-December through February, reduced weight loss of cows on range. In digestion trials that were conducted in association with the grazing trial, it was found that the molasses-based supplements increased the digestibility of the range forage base in addition to providing additional protein and energy.

# Nutritional Supplements for Florida Range

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The nutrient composition of Creeping Bluestem (Table 1) is typical of most Florida flatwoods and range forages. During the winter regrowth period, range forages will support about 75% of the energy and protein requirements for a 1000 lb dry cow and approximately 50% of the energy and protein requirements for a cow at the peak of her lactation period (typically 20 lbs of milk about 8 to 9 weeks after calving.) Similarly, flatwoods and range forages will supply only 10% to 50% of the cow's requirements for essential minerals. Appropriate nutrient supplementation and health programs are essential to attain economically realistic performance goals.

A sound approach to nutrient supplementation on range is to supplement dry cows in the last trimester of gestation with Fully-Fortified Suga-Lik® Grass Mate HD/12 with Fat (such as product #605). This supplement will provide the dry cow with at least 100% of her (and the calf she's carrying) nutrient requirements. At calving, switch to Fully-Fortified Suga-Lik® Grass Mate HD/16 with Fat (such as product # 509). Free-choice consumption of these products is expected to be about 5 lbs/cow/day through the first week after calving and about 6 lbs/cow/day thereafter. Six pounds of Fully-Fortified Suga-Lik® Grass Mate HD/16 with Fat (#509) along with the adequate amounts of free choice flatwoods range will provide at least 100% of her essential nutrient requirements and maintain her body condition score until about three weeks after calving (12 lbs milk production). From this time on, protein and energy (TDN) become limiting and you can expect a progressive loss of body condition score through a 20 lb peak lactation and until milk

production drops below about 12 lbs (approximately 5 months after calving). It is therefore essential that cows go onto the flatwoods or range in late fall and early winter with a very good body condition score if you expect a successful breeding season in spring. Remember that if your cows calve in late December or early January and you turn in bulls the first of March, you're starting your breeding season very near the period of peak lactation and maximum loss of body condition score. Moving cows from flatwoods range to Bahia in February decreases (but does not prevent) this loss of body condition score. By March, the protein and TDN levels in Bahia increase enough to prevent further body condition loss if supplementation of Fully-Fortified Suga-Lik® Grass Mate HD/16 with Fat (#509) is continued. If supplementation is not continued at this time, body condition score will continue to decrease. This is not conducive to short calving intervals or any other measure of desired reproductive performance.

**Average Dry Matter Composition of Creeping Bluestem<sup>a</sup>**

	Mar-Oct (initial)	Nov-Dec (regrowth)
Crude Protein	7 %	7 %
TDN	45 %	52 %
Calcium	0.14 %	0.21 %
Phosphorus	0.08 %	0.11 %
Potassium	0.38 %	0.38 %
Magnesium	0.11 %	0.13 %
Manganese	39.4 ppm	153 ppm
Copper	1.1 ppm	2.8 ppm
Iron	32.3 ppm	30.4 ppm
Zinc	3.8 ppm	8.5 ppm

<sup>a</sup> mineral composition adapted from Kalmbacher & Martin  
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