

FEED FOR THOUGHT

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

Summer Supplementation Pays—Definitely!

Patrick B. Whidden, PAS

Popular opinion says there's no need to supplement beef cattle grazing summer pasture. Contrary, there can be reasons and conditions that merit summer supplementation:

- Forage quality declines over the summer to below the requirements of several classes of beef cattle.
- Nutrient intake declines because forage intake can decline due to forage maturity, heat stress, rainy conditions and insect nuisance.
- Forage type (i.e., – low protein limpgrass) and fertility.

Various classes of beef cattle can clearly improve performance due to summer supplementation:

Cows with Calves. University of Florida research demonstrated improved calf weaning weights and cow body condition scores when liquid supplements were provided from June through weaning.

- In an average of three trials, calf gains were increased by 26 lbs. Using this information, if your cattle were supplemented 75 days and the cow-calf pair consumed 3½ lb Fully Fortified® Suga-Lik® per day, the breakeven selling price of your calves would need to be \$62 cwt to cover the summer supplement cost.
- In these same trials, cows also gained weight; roughly enough to equate gaining an additional ½-point of body condition score (BCS). Cows with better scores breed back earlier (Purdue University research), have higher conception rates (numerous university trials) and wean heavier calves the following year (various university trials). **These factors all contribute to ranch profitability!**

Weaned Calves. Another three University of Florida trials evaluated supplementing fall born calves, weaned in June, retained and grazed on summer bahia pastures. Calf gains

were improved from 0.66 lb/day to 1.31 lb/day. Using this information, if you supplemented your weaned, retained calves 105 days and the calves consumed 5 lb Fully Fortified® Suga-Lik® per day, the breakeven selling price of your calves would need to be \$46 cwt to cover the summer supplement cost.

Yearling Heifers. In yet another three University of Florida trials, yearling heifers grazing summer bahia grass pastures had high gains (1.82 lb/day) while consuming molasses-based liquid supplements. Larger heifers that have attained at least 65% of their mature weight, will likely breed as yearlings and have the opportunity to be significantly more productive over their lifetime.

Explore the potential for additional ranch profits by strategically using a Fully Fortified® Suga-Lik® product this summer.



Why Free-Choice Mineral Consumption Varies So Much

Chet Fields, Ph.D., PAS

We're frequently asked the question, "Why does intake of free-choice mineral vary so much?" Numerous research studies have proven beyond doubt that insofar as essential minerals are concerned, cattle have about as much nutritional wisdom as teenage children. Maybe unbelievable...but true! The only essential mineral for which cattle exhibit any nutritional wisdom is sodium, an element commonly supplemented as sodium chloride (salt). As such, any factor that

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increases sodium excretion or demand by cattle will increase free-choice sodium (salt) intake. Some of these factors include body weight, lactation, growth, pregnancy, ambient temperature/humidity, feed digestibility, and feed composition. During late spring and early summer forage quality typically increases. As digestibility of feed increases, feed and water intake increase. This results in increased urine volume, increased urinary and fecal loss of sodium and subsequently greater voluntary sodium intake. Similarly, higher protein diets result in greater voluntary water intake than lower protein diets. Again, greater urine volume with subsequent increased sodium excretion results in greater voluntary sodium intake.



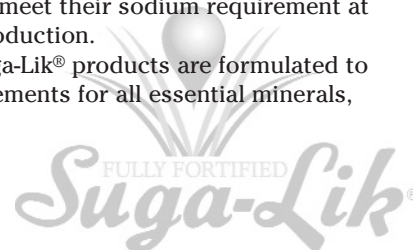
Physiological status of the cattle also has a profound influence on sodium requirement and hence voluntary sodium intake. The sodium requirement for a 1000 lb cow increases from a minimum of about 17 grams of sodium/day (equivalent to 1.5 ounces of salt) for an open, dry, 1000 lb cow at 77°F or less to about 33 grams of sodium/day (equivalent to 3 ounces of salt) for the same cow, 200 days in milk, with a 450 lb calf at an ambient temperature of 86° or higher.

The amount of supplemental sodium consumed will depend upon how much of the cow's sodium requirement is met by sodium in the pasture and drinking water. U.S. Sugar's Florida bahia grass forage data base containing over 800 sodium assays indicates that the concentration of sodium in bahia will vary from a low of about 0.01% in July and August to a high of about 0.03% in December and January (*see chart*). These levels, while quite variable, provide a very small portion of the cow's sodium requirement (less than 3 grams/hd/day). Similarly, a limited

number of drinking water assays indicate that drinking water for cattle on Florida ranches seldom exceeds about 40 ppm. This equates to less than 2 grams of sodium per head/day.

The chart below shows how much range mineral cattle will likely consume to meet their sodium requirement at various stages of reproduction.

Fully Fortified® Suga-Lik® products are formulated to meet the cow's requirements for all essential minerals, including sodium.



SODIUM (NA) REQUIREMENTS FOR A 1000 LB COW GRAZING BAHIA CONTAINING 17% DRY MATTER

	<i>Required Ounces of Intake of Range Mineral to Satisfy Sodium Requirements When % Salt in Range Material is:</i>			
	3.5%	10.0%	20.0%	27.0%
February/March				
Dry Cow, first 1/3 of gestation				
@ temperature < 77° F	38.8	13.5	6.8	5.0
@ > 86° F	41.9	14.7	7.3	5.4
February/March				
Peak Lactation, 20 lbs milk				
@ temperature < 77° F	50.3	17.6	8.8	6.5
@ > 86° F	52.6	18.4	9.2	6.8
July/August				
200 days in milk: 6 lbs milk, conceptus & 450 lb calf				
@ temperature < 77° F	71.2	24.9	12.5	9.2
@ > 86° F	75.2	26.3	13.2	9.8
September/October				
Dry Cow, last 1/3 gestation				
@ temperature < 77° F	44.0	15.4	7.7	5.7
@ > 86° F	50.1	17.5	8.8	6.5

Based upon drinking water containing 40 ppm sodium

DEALERS

Arcadia

Walpole Feed & Supply
863-763-6905

Branford

Mayo Fertilizer & Farm Supply
386-294-2024

Bronson

Owens Liquid Feed
352-486-2442

DeFuniak Springs

West FL Farmers Co-op
850-892-5522

DeLeon Springs

Phil McClure's Feeds
352-563-9884
386-734-0095

Lake Butler

Lake Butler Farm Center
386-496-3921

Lakeland

Kathleen Cash Feed
863-858-3123

Mayo

Mayo Fertilizer & Farm Supply
386-294-2024

Myakka City

Myakka Farm Supply
941-322-1783

Okahumpka

Lasher Milling Co.
352-787-4821

Okeechobee

Walpole Feed & Supply
863-763-6905



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