

Serengeti-Style Grazing

African Method Achieves High Success in South

by Sabino Cortez, Jr.

Ever since the invention of bob wire (barbed wire), finding nutritious forage in the hot arid regions of the United States has been a challenge to both ranchers and dairy producers alike. But, maybe just like King Arthur's search for the Holy Grail, the answer has been buried right in our own backyard the whole time.

When manipulated to grow as it did in its country of origin, Africa, common Bermuda grass is proving to be the most palatable, nutritious and economically beneficial grass for livestock production in tropical and subtropical climates. Before 1934, there were no cultivators of Bermuda grass to be found anywhere in the Americas. Common Bermuda grass, or African Bermuda, evolved in the Serengeti plains of Kenya. In Africa, the evolution of this plant species evolved as a heavily grazed forage. Rumens of all types would graze on this forage, shoulder to shoulder, day after day without migrating during the rainy season. This created a natural life cycle which benefitted the soil, the plant, and of course the animals.

It has been well documented (Dr. Neil Pratt, Texas A&M) that Bermuda grass, 4 inches or shorter, has a protein value of 26 percent and a TDN in the high 60's. Because of this high digestibility, grazing animals were reintroducing the carbon required to sustain this intense grazing themselves. Under these extreme grazing conditions, with proper nutrition and adequate rainfall, Bermuda grass roots become very dense and develop a vegetative defense mechanism to enable rapid recovery. This type of heavy grazing only occurs during the rainy season; when the rains stop, the animals move into the high country to eat the tall forage that had previously been resting.

We decided to mimic these ideal conditions with the cooperation of Ted Stevens, a rancher who raises grass-fed



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devons in Texas. The first thing that we had to do was create our own Texas monsoon season; this was accomplished through irrigation. Stevens chose to use the K-Line irrigation system. When you mention irrigation in Texas, eyebrows are raised seeing as how irrigation in our dry climate is quite a pricey endeavor. Fortunately, the stocking rates will justify the cost.

Secondly, we had to create a healthy dung beetle population. Fortunately the first owner of the ranch, the late Johnny Yates, had long been on a biological program. For everyone else, this means no more Ivomec as a wormer. Ivomec is the sure way to get rid of dung beetles. Instead we started to use high minerals, such as Redmond conditioner, Flo-

ra-Stim, and feed grade Diatomaceous Earth (DE). These were given free-choice to the cattle.

Thirdly was the introduction of the Erath Earth Compost Tea machine. This enabled us to add high volumes of carbohydrates, soluble nutrients (micro and macro), fungal and bacterial inoculants, plus their proper food sources. We also introduced a high-volume injection pump which enabled us to put out as much as 200 gallons of compost tea per hour through the irrigation system. The fourth, and arguably most important piece of this puzzle, was the addition of livestock. Finally, here is where we justify the expense of the irrigation system.

In our first year, we stocked 30-800 pound Devon bulls on six acres. The

second year we put a total of 59 head (cow-calf) on six acres. Here is where we usually lose everyone's attention: we did not rotate the livestock. We did not move the livestock during irrigation; we simply kept all the livestock on the same six acres of irrigated Bermuda grass during the entire growing season. Our primary objective here was not to let the Bermuda grass grow any taller than 4 inches high. If the Bermuda grass had grown over 4 inches, then there would not have been enough livestock on the acreage. Really, this is nothing new. Researchers and ranchers have attempted intensive Bermuda grass grazing in previous years. The reason they were not successful was because they attempted this type of Serengeti grazing with chemical inputs.

Do not attempt this grazing technique with chemicals because it will not work! There is no silver bullet; everything in nature is synergistic. Milk goes better with cookies. It takes a combination of techniques and inputs to produce a complete circle between soil, plant and animal. A healthy, full-grown Bovine produces 15 to 20 gallons of saliva per day which contains proteins, enzymes and microbes. By keeping the grass short, it benefits daily from the inoculation of the living plant. While the cow grazes, the saliva inoculates both the living grass tissue as well as the consumed forage. The tender forage with its high TDN releases abundant energy and protein for the grazing animal.

The manure from this lush vegetation is easily consumed by the healthy dung beetle population, which in turn introduces a carbon and nutrient source into the soil. The compost tea introduces digestive microbes which help to neutralize the urine as well as providing biology to break down the cellulose in the manure.

All that said, pastures where Serengeti grazing is practiced have the appearance of a manicured golf course; it's actually a thing of beauty! You have to look long and hard to find any droppings because they literally disappear overnight. Back to our aforementioned fear of irrigation price: the investment of an irrigation system is ultimately justified by the stocking rates, while different soil types dictate different recovery times. Based on our personal research over the last seven years, we estimate that 200 to 600 pounds of cattle can be grazed at a stocking rate of 40 to 60 head per acre using this method.

Without a doubt, the organic dairy industry could greatly benefit from Serengeti grazing. With the current required rate of 120 days of grazing, smaller tracts of land would be necessary, thus allowing for a dramatic reduction of input costs. In a five-year study done on short Bermuda grass grazing with milking cows, both the 100 weight and butterfat was higher than could be achieved with the best alfalfa

money could buy. The limiting factor of Serengeti grazing is that the hotter the climate, the better the system works. This is strictly a southern delight. Zacate Afrikana!

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