ONA REPORTS

published in

THE FLORIDA CATTLEMAN AND LIVESTOCK JOURNAL

March 2004

Cow and calf gains on creeping signalgrass and bahiagrass

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Bahiagrass fits well in our system of pasture extensive management and is the major grass with about 2.5 million acres state-wide, however, the loss of nearly 100,000 acres of bahiagrass in the mid-1990s to tawny mole cricket highlighted the need to identify other grasses with qualities similar to bahiagrass. Creeping signalgrass (Brachiaria humidicola) shares many of the desirable characteristics of bahiagrass. It produces moderate yield with low soil fertility, establishes from seed and withstands close grazing. Although it does not tolerate the wide range of soil conditions and temperatures that bahiagrass does, it is adapted to the wet, infertile soils of the warmer central and south Florida, where the majority of the state's cattle are produced. Signalgrass was tested earlier at the Range Cattle REC in small-plot trials, and it was found to be persistent, relatively high yielding, and had similar nutritive value compared with bahiagrass. However, we knew nothing about cattle production or grazing management of signalgrass.

Last fall we completed a 4-year grazing study comparing creeping signalgrass and Pensacola bahiagrass. Grazing for Brangus cows and calves began in mid-May, calves were weaned the first week in August, and cows remained on pasture through October. Cattle were stocked at 1 pair/acre and grazed in a 28-day, 4-pasture rotation. At weaning, the 4-year average weight for calves on signalgrass was 549 lb vs. 519 lb for bahiagrass at 266-days of age. Cows, which began in May at 1133 lb, averaged 1145 on signalgrass and 1093 on bahiagrass in August. In October cows averaged 1241 lb on signalgrass vs. 1136 lb on bahiagrass with a body condition score of 5.7 and 4.7, respectively.

These results look interesting for signalgrass, but let's compare some of the growth characteristics of signalgrass and bahiagrass. First, while bahiagrass can provide grazing in early March, signalgrass is a summer grass with no appreciable growth before mid-May. While N fertilization rates are similar for signalgrass and bahiagrass, it is important not to fertilize signalgrass before May. Second, signalgrass produces about 10% more grass annually than bahiagrass, but signalgrass is difficult to stock correctly because it has a tremendous flush of growth in mid-June to July. In the last 2 years of our study, we found that we needed to double our cow numbers (2 pairs/acre) on signalgrass during this 4-6 week period in order to utilize the grass efficiently and not end-up with a large mass of poor-quality pasture. Third, signalgrass is not cold tolerant and considerable stand loss can occur in central Florida.

If you are considering planting signalgrass, give thought to where weaknesses occur in your grazing program and why signalgrass might make a contribution. A weakness of bahiagrass is declining nutritive value during June to July. Our data showed that calves on signalgrass pastures at this time were 30 lb heavier than calves on bahiagrass at weaning in August. A small, centrally-located pasture of signalgrass into which cattle can be conveniently rotated would be an good complement to a bahiagrass-based pasture system. Diversification and balance are important in any pasture system, and signalgrass has a place as a specialty grass in our region.

Creeping signalgrass should be fertilized in early May in most years. In order to efficiently utilize the flush of summer growth, the grass should be stocked with 2 cow-calf pairs/acre from mid-June through July.