

# **ONA REPORTS**

*published in*

**THE FLORIDA CATTLEMAN AND LIVESTOCK JOURNAL**

**July 2003**

## **Forage Yield and Nutrient Value of *Brachiaria* Grasses in Central Florida**

**Dr. Paul Mislevy**

*University of Florida/IFAS*

*Range Cattle Research and Education Center*



For questions or comments regarding this publication contact

[Dr. Paul Mislevy](#)

*Brachiaria* grasses are considered one of the most widely grown improved forage grasses in the tropical world. These are grown extensively throughout Central and South America. Land area currently in *Brachiaria* pastures is estimated to range between 75 and 170 million acres in Brazil alone.

To provide Florida forage producers with the best forage grasses there is a continued need for screening and testing new forage germplasm and to develop management practices under grazing.

A grazing study was conducted at the Range Cattle REC to determine productivity, nutrient value, and persistence of six tropical grasses consisting of four *Brachiarias*, and two *Andropogon*'s, comparing them with Florona stargrass and Pensacola bahiagrass. The *Brachiarias* consisted of Insurgente, Abundance (Mulato), *B. dictyoneura*, and creeping signalgrass (Chetumal). The *Andropogon* cultivars were Llanero and Tun Tun.

The year following establishment, grasses were grazed at 2, 4, 5 and 7 week frequencies. Grasses were fertilized in the spring of 2000 with 50-30-60 lb/A N-P2O5-K2O + 1.5 lb/A Cu, Zn, Fe, Mn (sulfate form), 0.15 lb/A B and 6.0 lb/A S. A total of 150 lb/A N was applied annually in a split application. Harvesting all grasses at a 2-week frequency averaged lowest yield (2.0 tons/acre) and highest nutritive value (crude protein 20% and 68% digestibility), whereas at a 7-week frequency grasses produced highest yield (5.0 tons/acre) and lowest nutritive value (14% crude protein and 59% digestibility). Generally a harvest frequency of 4 to 5 weeks or grazing frequency of 4 weeks is recommended for tropical grasses. In this study grasses producing the highest total yield when harvested at a 5-week frequency were Florona stargrass (4.8 tons/acre), *Brachiaria*

Mulato (4.3 tons/acre) and B. Insurgente (4.1 tons/acre). Pensacola bahiagrass yielded 1.9 tons/acre when harvested at the same frequency.

Forage nutritive value of the three highest producing grasses was B. Insurgente 17% crude protein and 66% digestibility, B. Mulato 17% crude protein and 68% digestibility and Florona stargrass 22% crude protein and 60% digestibility. Pensacola bahiagrass also harvested at 5 weeks averaged 20% crude protein and 59% digestibility.

*Brachiaria* Insurgente and Mulato are excellent yielding and are very leafy bunch grasses with little or no winter production. They have good crude protein concentration and excellent digestibility. In fact digestibility will run 6 to 8 percentage units above Florona stargrass. The problem with *Brachiarias* at Ona was cold tolerance. The temperature during the fall of 2000 and spring of 2001 dropped below 32oF 11 times with a one time extreme low of 19oF at ground level and 23oF at 4.5 feet (US Weather Bureau height). This temperature regime killed 100% of the *Brachiaria* study. One commercial producer west of Okeechobee has been growing two *Brachiaria* cultivars for at least 3 years with no persistence problems. It appears that Bracharia may be a viable alternative for warmer areas of south Florida. If additional information is desired, please call 863-735-1314.