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Bermudagrass, Stargrass, and Bahiagrass Growth During a Frost-Free Winter

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Bahiagrass is the most popular forage grass in Florida occupying about 70% of the states improved-pasture. This warm-season grass produces 85% of its forage during long days (April-September), with only 15% of its production between October and March. This forces cattle producers to feed hay, or stockpiled forage, or to use other forms of supplement. In recent years considerable bahiagrass pasture area has been lost to mole crickets, causing commercial growers to consider other options regarding perennial grass selection. In the southeastern United States bermudagrass is a base forage for beef and dairy producers. However, in Florida bermudagrasses and stargrasses are used more as speciality grasses for hay, haylage, and where high yields of quality forage are desired under intensive grazing. Bermudagrass and stargrass cultivars will produce considerable forage in the fall and during January and February if temperatures are favorable (avg low of 52 to 55F and no freeze). The increased popularity of bermudagrasses and stargrasses has also been attributed to drought tolerance, rapid establishment, good persistence and resistance to most pests (except army worms and loopers) including mole crickets.

In 1997 an experiment was conducted to compare Pensacola bahiagrass, Florakirk and Tifton 85 bermudagrass and Florona stargrass for dry matter yield. During short days (mid December to early March) and cool conditions, with no frost. On December 16, 1997 all grasses were mowed back to a 3" stubble and fertilized with 50 lb/A N. Grasses were harvested after 6 and 12 wk regrowth. Florakirk bermudagrass followed closely by Florona stargrass produced the highest dry matter yields after 6 wk regrowth, averaging 0.74 and 0.65 t/A respectively (Table 1). Tifton 85 bermudagrass produced considerably lower yields averaging 0.33 t/A, followed by Pensacola bahiagrass 0.05 t/A.

Grasses allowed to grow for 12 wk showed a similar pattern, with Florakirk bermudagrass and Florona stargrass producing the highest yield averaging 2.3 and 2.2 t/A, respectively (Table 1). Tifton 85 produced lower yields (0.8 t/A), followed by Pensacola which averaged 0.04 t/A. Both Florakirk and Florona produced good dry matter yields during the short-days (December - February) provided winter temperatures remain warm, with no frost. If frost occurs during January, followed by warm temperatures these two grasses will make rapid growth during February and March. Bahiagrass produces little or no forage during the winter season even with warm temperatures, because it will not grow during short days.

Table. Dry matter yield of perennial grasses after a 6 and 12 wk regrowth period during the winter (December-March), 1997-98.

	Regrowth	
Grass Cultivar	6 weeks	12 weeks
	------ tons/A DM ------	
Florakirk bermudagrass	0.74 (100%)	2.3 (100%)
Florona stargrass	0.65 (88%)	2.2 (96%)
Pensacola bahia	0.05 (7%)	0.04 (2%)
Tifton 85 bermudagrass	0.33 (45%)	0.8 (35%)

( ) = yield of other grasses as % of Florakirk.

6 wk regrowth cut 1/28/98.

12 wk regrowth cut 3/11/98.