ICRISAT Center, Patancheru, India, will maintain breeder seed. Small quantities of seed can be obtained from the Principal Groundnut Breeder, ICRISAT on request.


References and Notes

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Registration of 'Florico' Stargrass

'Florico' sargass (Cynodon nlemfuensis Vanderyst var. nlem-fuensis) (Reg. no. CV-154, PI 562690) (Puerto Rico [PR] PI 2341) is a dark green, pubescent, high-yielding perennial grass, well adapted to many tropical soils. The grass was introduced into Puerto Rico in 1957 from Kenya, Africa. Field tests at Gurabo, PR (8), showed that dry matter and protein yields of PR pl 2341 were superior to most other grasses tested. At present, PR PI 2341 is grown extensively in Puerto Rico and is considered to have improved pasture potential compared with other forages (2). In 1972, several ramets of PR PI 2341 were brought from Puerto Rico to the Agricultural Research and Education Center (AREC), Ona, FL. Florico, an asexually propagated clone was released jointly by the Florida Agricultural Experiment Station, Puerto Rico Agricultural Experiment Station, and USDA-ARS in July 1989.

The tropical nature of Florico limits its productivity and persistence to the southern two-thirds of Florida and to the warmer tropical areas of the world. Florico stargrass is vegetatively propagated from sterns and stolons. When adequate moisture and fertility are available, a dense stand of grass can be obtained 70 to 90 d after planting.

Florico is responsive to high rates of fertilization, and an intensive utilization program must be followed to obtain maximum return from this cultivar. With adequate moisture and fertility, the grass will produce forage under both wet, warm (average monthly maximum temperature 34 °C) or cool (average maximum return from this cultivar. With adequate moisture and fertility, the grass will produce forage under both wet, warm (average monthly maximum temperature 34 °C) or cool (maximum return from this cultivar. With adequate moisture and fertility, the grass will produce forage under both wet, warm (average monthly maximum temperature 34 °C) or cool (average monthly minimum temperature 12 °C) environmental conditions. The hydrocyanic acid (HCN) potential is high under heavy N fertilization, especially during the early stages of plant development. No HCN toxicity to cattle (Bos spp.) grazing Florico has been evidenced at Ona in 16 yr of testing. Insect problems are less severe than on most tropical perennial grasses, but plants are susceptible to armyworm [Spodoptera frugiperda (J.E. Smith)] and grass looper [Mocis latipes (Guene'e)]. A foliar blight (caused by Rhizoctonia solani Kühn, (Anastomosis Group 1), was occasionally observed in Florico. The incidence of blight seemed to be associated with dense stands of tall, ungrazed forage and tended to disappear as the cool-dry season approached. Cattle consumed infected plants relatively well with no signs of rejection or plant loss. Ectoparasitic nematodes, stubby-root (Pararithichodoras spp.) and sheath (Hemicycliophora spp.), were found to be supported by Florico, but had little effect on production and persistence of this stargrass.

Dry matter (DM) yields of Florico harvested at 4 and 5 wk intervals, respectively, from two mob-grazing studies ranged from 12.0 to 15.7 Mg ha⁻¹ yr⁻¹ when fertilized with 160 to 220 kg ha⁻¹ yr⁻¹ N (5,7). In vitro organic matter digestion (IVOMD) and crude protein (CP) concentration averaged 600 g kg⁻¹ and 125 g kg⁻¹ for Florico pastures grazed at 4 and 5 wk intervals, respectively, during June and September (6). The IVOMD of Florico is 20 to 30 g kg⁻¹ higher than 'Ona' stargrass and similar to 'Pangola' digitgrass (Digitaria decumbens Stent.) (6).

Florico grown in a reclamation study on phosphatic clay had a 3-yr average yield of 14.1 Mg ha⁻¹, with a CP range during the warm season of 107 to 139 g kg⁻¹ and IVOMD range of 630 to 696 g kg⁻¹ (3).

Grazing studies with Florico at the AREC, Ona, FL, produced a 3-yr average daily gain of 0.5 kg and 743 kg ha⁻¹ yr⁻¹ live weight gain at a stocking rate of 7.2 steers ha⁻¹ over 200 d during the warm season (May to December) (4). This level of animal performance is considerably higher than that obtained from 'Pensacola' bahiagrass (Paspalum notatum Flügge), which is currently the most common pasture grass used in Florida.

Florico should be allowed a rest period of 4 to 5 wk between intensive grazing or harvesting treatments. This management results in excellent persistence and high DM yield of good quality. Florico should be maintained at a stubble height of 15 to 25 cm for best persistence. Because plant height above the stubble has a major effect on forage yield and quality, plants should be grazed when plant height above the stubble is 15 to 45 cm. Stubble height influences root development of Florico. Compared with an unharvested treatment, root DM accumulation was reduced 97% for plants that were repeatedly harvested to a 5-cm stubble after attaining 15 cm of top growth above the stubble (1).

Foundation vegetative planting stock of Florico is available from the University of Florida, Institute of Food and Agricultural Sciences, AREC, Ona, FL 33865. The Florida Foundation Seed Producers, Inc. P.O. Box 309, Greenwood, FL 32433, maintains a list of growers who obtained initial planting stock from 1988 to 1992.


References and Notes