Registration of 'Florakirk' Bermudagrass

'Florakirk' bermudagrass (Cynodon sp.) (Reg no. CV-37, PI 604246) was developed by G.W. Burton, USDA-ARS, in cooperation with the University of Georgia Coastal Plain Experiment Station, Tifton, GA. It was released in July 1994 by the Florida Agricultural Experiment Station. Florakirk is a sterile F₁ hybrid between 'Tifton 44' (2) and 'Callie' bermudagrass. This cross, made in 1975, was called Callie hybrid 35-3.

Florakirk is a persistent, perennial grass that is well adapted throughout Florida and north to middle Georgia. It is a high-yielding, high-quality, fine-stemmed forage that was released for hay production. It will make excellent growth during the short days of the frost-free cool season. Florakirk exhibits drought tolerance and is persistent on saturated soils, provided plants are not completely submerged. It has good cold tolerance, persisting to a low of −13°C with excellent regrowth.

In 1979, O.C. Ruelke (Univ. of Florida, Gainesville) obtained vegetative plant material of Florakirk from G.W. Burton (USDA-ARS). Florakirk was planted in a mob grazing study at Ona, FL, in 1980 and averaged 16.8 Mg ha⁻¹ total seasonal dry matter (DM) production (2-yr mean) when grazed at 4- and 5-wk frequencies. It had excellent quality and persisted well under 3 yr of grazing when compared with 'Ona' stargrass (C. nemfuenensis Vanderyst var. nemfuenensis) and other Tifton bermudagrass hybrids (10). In a 1985 study, Florakirk yielded 36% more total seasonal DM (2-yr mean) than 'Tifton 78' bermudagrass (1,4) at Ona. At Gainesville, Florakirk yielded 10% higher than 'Coastal' bermudagrass (C. dactylon [L.] Pers.) (5) over a 10-yr period. However, Florakirk produced lower (P ≤ 0.05) warm-season DM yields (11.6 Mg ha⁻¹) than 'Florico' stargrass (7) (13.4 Mg ha⁻¹), 'Florona' stargrass (8) (13.9 Mg ha⁻¹), and 'Tifton 85' bermudagrass (3) (13.7 Mg ha⁻¹) when grazed over 3 yr (9).

Florakirk produced well during cool, short days in subtropical Florida, yielding 26% more DM than Tifton 78 between December and May of 1987 and 1988 (1) and 92% more DM than Tifton 85 between January and mid-April 1995 (9). Florakirk outyielded Florona stargrass, 'Pensacola' bahiagrass (Paspalum notatum Flügge), and Tifton 85 bermudagrass by 0.2, 1.56, and 0.92 Mg ha⁻¹, respectively, after 6 wk of regrowth between mid-December 1997 and late January 1998, and by 0.25, 5.08, and 3.38 Mg ha⁻¹, respectively, after a 12-wk regrowth period from mid-December 1997 to early March 1998 (P. Mislevy, unpublished data, 1998).

Florakirk is recommended for hay production but not for grazing, because of foliar disease build-up in the stubble [leaf spot, caused by Bipolaris sp. (formerly classified as Helminthosporium) and tar spot, caused by Phyllostachya sp.]. Studies at Ona during 1986 and 1987 revealed that yearling steers (Bos taurus) grazing Florakirk had an average daily gain of 0.39 kg, which was 29% and fertility, along with good weed control, a dense 60 cm high can be obtained in 65 to 75 d (6).

Florakirk bermudagrass has a high hydrocyanic acid potential (HCNₚ), especially under high levels of N fertilization, with no detrimental effects on grazing cattle at Ona. However, protection for Florakirk was not requested.

Vegetative foundation stock can be obtained from either source for research purposes. If larger amounts of vegetative plant material are needed, consult with the corresponding author. U.S. plant variety protection for Florakirk was not requested.


References and Notes