REGISTRATION OF CROP CULTIVARS

REGISTRATION OF ‘GRAZER’ BERMUDAGRASS

‘GRAZER’ bermudagrass [Cynodon dactylon (L.) Pers.] (Reg. no. 16) is an F₁ hybrid (PI 255450 × PI 320876) developed by the USDA-ARS, Coastal Plain Experiment Station, Tifton, GA, and was registered for bermudagrass germplasm as Tifton 72-84 (1). The cultivar was released by the Louisiana Agricultural Experiment Station and USDA-ARS on 1 May 1985.

Grazer is a highly stoloniferous, slightly rhizomatous perennial that produces a dense stand of dark-green, robust culms. In a 3-yr replicated grazing trial, following establishment of paddocks in 1980 and 1981, at Calhoun, LA, on Coastal Plain soil, weight gain of yearling crossbred Brahman steers grazed on Grazer averaged 1.25 Mg ha⁻¹ for 145 days (2). Steer (Bos indicus × Bos taurus) gain from Grazer paddocks was 11, 10, and 6% higher than cultivars ‘Tifton 44’, ‘Coastal’, and ‘Brazos’, respectively. Cattle grazed on Grazer made higher (P<0.05) gain day⁻¹ than cattle on other cultivars during the latter 42 days (mid-August to mid-September) of the grazing seasons, e.g., 0.72 kg for Grazer and 0.46, 0.36, and 0.34 kg for Tifton 44, Brazos, and Coastal, respectively.

In a 3-yr (1974–1977) replicated clipping trial, which simulated hay production on Coastal Plain Soil at Homer, LA, digestibility of Grazer (IVDMD) for five annual cuttings was 0.36 and 0.34 kg for Tifton 44, Brazos, and Coastal, respectively. Cultivars ‘Tifton 44’, ‘Coastal’, and ‘Brazos’, respectively. Cattle grazed on Grazer made higher (P<0.05) gain day⁻¹ than cattle on other cultivars during the latter 42 days (mid-August to mid-September) of the grazing seasons, e.g., 0.72 kg for Grazer and 0.46, 0.36, and 0.34 kg for Tifton 44, Brazos, and Coastal, respectively.

Clipping trials at both locations failed to measure the true yield potential of Grazer because a considerable amount of forage remained on plots below the cutter-bar height (2.54 to 5.08 cm). Such forage would be available to grazing ruminants. The name Grazer was chosen for selection 72-84 to indicate that the grass is more adapted for grazing by ruminants than for hay production.

A northern limit for Grazer is yet to be established. Grazer has persisted in northern Louisiana, where minimum temperature of -15°C was recorded for 3 h in 1983; temperature was less than 0°C for 216 h consecutively.

Breeder stock of Grazer (72-84) will be maintained by the Georgia Coastal Plain Experiment Station, Tifton, GA 31793. Foundation stock for release to growers will be maintained at the Hill Farm Research Station, Homer, LA 71040, and the Calhoun Research Station, Calhoun, LA 71225.

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References and Notes


REGISTRATION OF ‘PIEDMONT’ ORCHARDGRASS

‘PIEDMONT’ orchardgrass (Dactylis glomerata L.) (Reg. no. 12) is a four-clone synthetic cultivar developed by the South Carolina Agricultural Experiment Station and released 21 Dec. 1978. Prior to its release, Piedmont was tested as OG65G. This selection was one of seven experimental synthetics formed from 30 clones chosen in 1965 based on survival, forage yield, and resistance to foliar disease in several trials. The principal trial included 100 elite clones planted in replicated rows that were harvested 15 times from 1963 to 1965. OG65G was selected for entry into regional trials based on its performance in South Carolina in replicated, solid-seeded plots from 1968 through 1972.

The parental clones of Piedmont are SC91, SC92, SC93, and SC94. Parental clone SC91 was taken as a tiller from a row seeded with progeny of Pa. clone XXX-3 in a source nursery of 175 entries established by Dr. R.J. Metzger in 1953 with seed received from Dr. H.R. Fortman at Pennsylvania State University. This clone subsequently was evaluated in spaced-plant, polycross, and single-cross trials. Parental clone SC92 traces to ‘Va. Syn. V.’ Parental clone SC93 arose from crosses involving Kentucky Selection and clones Pa. MIll-19 and Va. 66. Both parental clones were initially selected from 2000 spaced plants overseeded with ladino clover (Trifolium repens L.), which were clipped regularly. Parental clone SC94 is a survivor of a greenhouse rust screening test of approximately 30 000 seedlings conducted in 1956, a field rust test of 2544 plants in 1957, and a yield trial of 100 clones in replicated one-row plots evaluated from 1960 through 1962. Source of the clone is unknown.

Piedmont attains 50% anthesis approximately 10 days later than ‘Potomac’ and produces fewer panicles at Clemson, SC. Stand persistence has been superior to cultivars of comparable maturity tested at Clemson. Forage yields as percent of the mean of ‘Potomac’, ‘Hallmark’, ‘Napier’, and ‘Able’ were 110 in Alabama, 110 (Napier excluded) in Tennessee, 105 in Iowa, 102 to 115 in Indiana, and 105 to 114 in Missouri (1). Similar comparisons in South Carolina ranged from 88 to 111. Piedmont was the highest yielding entry in 1982 in a North Carolina trial planted in 1978 on the Upper Piedmont Research Station.

Piedmont exhibited superior retention of green color during drought in South Carolina. In Minnesota, Piedmont suffered less winter injury than Able but more injury than earlier maturing cultivars. Poor survival following a moderately