REGISTRATION OF SLENDERSTEM DIGITGRASS
(Reg. No. 27)

E. M. Hodges and S. C. Schank

'SLENDERSTEM' digitgrass, Digitaria pentzii Stent., was released in September 1969 by the Florida Agricultural Experiment Station as a new perennial forage grass.

Vegetative planting material of Slenderstem (experimental designation Leesburg No. 5) used in trials at the University of Florida Agricultural Research Center, Ona, Fla. was obtained from the Agricultural Research Center, Leesburg, Fla. (formerly Watermelon and Grape Investigations Laboratory) in 1953 with no specific record of source of material or plant introduction number. The first listing of this cultivar as Digitaria sp. was based on a sample (PI 300935) sent to the USDA New Crops Research Branch, Beltsville, Md. from Ona in 1959. Additional biosystematic work in 1969 classified Slenderstem as D. pentzii. We have also compared Slenderstem with specimens of Digitaria in the herbarium of the Institute of Food and Agricultural Sciences, University of Florida, Gainesville. It most closely resembles a specimen labelled Digitaria seriata received as Kuruman PI 106657. Kuruman had been in forage trails at Gainesville and was probably among approximately 70 grasses transferred to Leesburg in 1950 for further evaluation. Since neither Slenderstem nor the Kuruman strain have a branched rhizome with serially arranged culms, as described for D. seriata, the D. seriata classification is considered incorrect.

Slenderstem is adapted only to sub-tropical or tropical areas, usually between 30°N and 30°S latitude. Its area of adaptation is similar to that of 'Pangola.' Slenderstem is being evaluated as a forage grass in Guyana, Surinam, Venezuela, Colombia, Puerto Rico, and El Salvador.

The numerous stolons are similar to Pangola in prostrate growth habit and production of roots at each node. Slenderstem can be distinguished from Pangola by the presence of only four spike-like racemes making up the inflorescence, by longer internode length, and by the smaller stem diameter that gives the cultivar its name. In addition, the leaf blade of Slenderstem has minute soft hairs on both surfaces and a more delicate ligule than Pangola. The tetraploid Slenderstem (2n = 36) produces some viable seed.

The forage production of Slenderstem was 35% more than Pangola and 43% higher than 'Pensacola' bahiagrass in the period of the year from October 1 to May 1. The total forage produced by Slenderstem was 10% more per harvest than Pangola and 11% higher than Pensacola. In a 3-year grazing comparison at Ona using yearling steers, average gains were 450 kg/ha/yr on Slenderstem, 499 on Pangola, and 401 on Pensacola.

Breeder stock of Slenderstem is maintained by the Agricultural Research Center, University of Florida, Ona, Fla. 32601.

REGISTRATION OF OXLEY CICER MILKVETCH
(Reg. No. 14)

A. Johnston, S. Smoliak, M. R. Hanna, and D. McCaleb

'OXLEY' cicer milkvetch (Astragalus cicer L.) was released from the Research Station, Canada Department of Agriculture, Lethbridge, Alberta, and was released and licensed (registration number 1930) on Feb. 4, 1971. Oxley O.A.-488 introduced from the U.S.S.R. in 1951 and grown at the Canada Department of Agriculture Research Substation, Stavely, Alberta. Seed produced at Manyberries brought to the Canada Department of Agriculture Research Station, Lethbridge, Alberta in 1945 as L-71 were established. Seed from these rows was used in plots, in 1950, at the Canada Department of Agriculture Research Substation, Stavely, Alberta. Bulked seed 1965 from the Stavely plots was later identified as 'Oxley' cicer milkvetch. Oxley is a cultivar with excellent winterhardiness. It lacks seedling vigor but has been shown to be highly productive and has established stands. Seed from these rows was used in plots, in 1950, at the Canada Department of Agriculture Research Substation, Stavely, Alberta. Bulked seed 1965 from the Stavely plots was later identified as 'Oxley' cicer milkvetch.

Cicer milkvetch is a rhizomatous, perennial, cold-tolerant forage crop. It is not known to induce bloat in livestock. Unlike other species, it does not accumulate high levels of Se. Oxley is a tetraploid species. Oxley is being evaluated by the Research Station, Canada Department of Agriculture, Lethbridge, Alberta. It is being evaluated by the Beltsville, Md. from Ona in 1959. Additional biosystematic work in 1969 classified Slenderstem as D. pentzii. We have also compared Slenderstem with specimens of Digitaria in the herbarium of the Institute of Food and Agricultural Sciences, University of Florida, Gainesville. It most closely resembles a specimen labelled D. seriata received as Kuruman PI 106657. Kuruman had been in forage trails at Gainesville and was probably among approximately 70 grasses transferred to Leesburg in 1950 for further evaluation. Since neither Slenderstem nor the Kuruman strain have a branched rhizome with serially arranged culms, as described for D. seriata, the D. seriata classification is considered incorrect.

Slenderstem is adapted only to sub-tropical or tropical areas, usually between 30°N and 30°S latitude. Its area of adaptation is similar to that of 'Pangola.' Slenderstem is being evaluated as a forage grass in Guyana, Surinam, Venezuela, Colombia, Puerto Rico, and El Salvador.

The numerous stolons are similar to Pangola in prostrate growth habit and production of roots at each node. Slenderstem can be distinguished from Pangola by the presence of only four spike-like racemes making up the inflorescence, by longer internode length, and by the smaller stem diameter that gives the cultivar its name. In addition, the leaf blade of Slenderstem has minute soft hairs on both surfaces and a more delicate ligule than Pangola. The tetraploid Slenderstem (2n = 36) produces some viable seed.

The forage production of Slenderstem was 35% more than Pangola and 43% higher than 'Pensacola' bahiagrass in the period of the year from October 1 to May 1. The total forage produced by Slenderstem was 10% more per harvest than Pangola and 11% higher than Pensacola. In a 3-year grazing comparison at Ona using yearling steers, average gains were 450 kg/ha/yr on Slenderstem, 499 on Pangola, and 401 on Pensacola.

Breeder stock of Slenderstem is maintained by the Agricultural Research Center, University of Florida, Ona, Fla. 32601.

1 Registered by the Crop Science Society of America. Paper from the Florida Agricultural Experiment Station, Ona, Florida. Received May 9, 1972.
2 Agronomist, Agricultural Research Center, Ona, Fla. and Agronomist, Institute of Food and Agricultural Sciences, Gainesville, Fla. 32601. Early tests were conducted by the late J. E. McCaleb.
3 Appreciation is extended to Dr. Henry F. Deckcr, Agrostologist, Ohio Wesleyan University, Delaware, Ohio, who spent sabbatic leave in Florida studying the biosystematics of the genus Digitaria.
4 Pangola is a cultivar represented by a population resulting from chance hybridization of closely related species.

Pangola is a stoloniferous perennial with stems and very abundant leaves. The firm ligule is from 2.5 to 5 mm long. The stoloniferous vegetative roots at the nodes when they are in contact with nodes of the stolons are very pubescent yet the leaf blades are nearly glabrous. The nodes of the culm carry the inflorescence. The inflorescence is a compound spike-like structure composed of one or two whorls, with five spikes on each at the first whorl. Pangola is triploid (2n = 27) and female sterile. At Gainesville, less than 0.001% have been obtained.

Pangola is generally established vegetatively from green stems cut at the hay stage and disking into moist soil. It may be grazed after 60 to 90 days if the weather is favorable. It is best adapted between 30°N and 30°S latitude to level to 1,800 m and where annual rainfall is at least 450 mm.

Average gain by calves grazing Pangola for three years (1966-68) at Ona, Florida was 418 kg ha/yr compared to only 270 kg ha/yr obtained with 'Pensacola' bahiagrass. Pangola is used as a hay or silage crop.

Breeder stock of Pangola is maintained by the Florida Agricultural Experiment Station, Gainesville, Florida.