

COMUNICACIONES

A name for University of Florida hybrid digitgrass x46-2¹/.

A hybrid digitgrass bred at the University of Florida, Gainesville, is now being successfully grown in South America, particularly in regions of Venezuela, Surinam, and Brazil. Indications are for expanded use of this grass in the humid tropics which merits recognition of this hybrid by a formal nomenclatural status and name.

Digitaria X umfolozi D. W. Hall = *Digitaria setivalva* Stent ♀ X *D. valida* Stent ♂

Perennis; culmis erectis, caespitosis, cum stolonibus; nodis glabellis; vaginis scaberulis, cum capillis aliquando longis ad apicem; ligula prominenti, pubescenti, et margine lacerata; lamina ad 1.3 cm latis et ad 27.6 cm longis, planis, scaberulis supra et infra cum nonnullis dispersis capillis longis ad basim supra; paniculis cum 7-12 ramis, ramis 5.1-18.0 cm longis, 2-3 verticillatis; rachidi alata, 0.5-0.7 mm lata; spiculis 2.8-3.2 mm longis, binis in pedicellis impari longitudine, altero brevissimo altero longo, gluma prima 0.1-0.4 mm longa, enervi; secunda gluma 1.6-2.1 mm longa, ternervata, pubescenti cum dense longis pilis saepe extensis plus quam 1.0 mm ultra apicem; lemmate inferiore sterili, 7-nervato, dense longo pubescenti inter omnes nervos praeter medios tres nervos exceptis, pari in longitudine spiculo fertili; palea inferiore rudimentali ad 0.3 mm longa; lemmate superiore fertili, brevior quam spiculo, acuto, reticulato minute, schistaceo; palea superiore parum brevior quam lemmate, acuta, reticulata minute, schistacea.

Perennial; culms erect, tufted, stoloniferous; nodes glabrous; sheaths scabrous with occasional long hairs near apex; ligule prominent, pubescent, margin lacerate; blades to 1.3 cm wide and 27.6 cm long, flat, scabrous above and below with some scattered long hairs at base above; panicles with 7-12 branches, branches 5.1-18.0 cm long, 2-3 verticillate; rachis winged, 0.5-0.7 mm wide; spikelets 2.8-3.2 mm long, in pairs on pedicels of unequal length, one very short and the other long; first glume 0.1-0.4 mm long, nerveless; second glume 1.6-2.1 mm long, 3-nerved, densely long pubescent with hairs often extending more than 1.0 mm past apex; lower lemma sterile, 7-nerved, densely long pubescent between all but central 3 nerves, as long as fertile spikelet; lower palea rudimentary to 0.3 mm long; upper lemma fertile, shorter than spikelet, sharply acute, minutely reticulate, gray; upper palea slightly shorter than lemma, sharply acute, minutely reticulate, gray.

Type: United States: Florida: Alachua County; Cultivated in plot at the Experiment Station at the University of Florida in Gainesville, 28 Sept. 1977, D. W. Hall 482 (holotype FLAS; isotypes to be distributed to BH, BM, FSU, GH, ISC, MO, NY, US, USF).

This hybrid differs from *Digitaria natalensis* in that the ligule is only 3.0 mm long, culms are not geniculate nor rooting at lower nodes, and the sheaths are scabrous with only occasional long hairs. *Digitaria X umfolozi* differs from *D. milaniana* in that it lacks rhizomes and the sheaths are not pubescent. *D. X umfolozi* differs from *D. valida* as the hybrid has blades that are scabrous above, shorter spikelets, and stolons lacking internodal hairs. *Digitaria polevansii* is

¹ This paper is Florida Agricultural Experiment Station Journal Series No. 4257

very close but has rhizomes, whereas *D. X umfolozi* lacks them, Henrad (1).

From data obtained in Brazil, Schank *et al.* (2) showed this hybrid to have the highest dry matter production (30 008 kg/ha/yr) of thirty *Digitaria* genotypes tested. It had the highest *in vitro* organic matter digestibility (68.16%). The hybrid also tested significantly higher in digestibility ($P = > 0.05$) and in dry matter yield (8.24 g/m²/day) than did four commercial cultivars of digitgrass and Bermudagrass. This combination of high yield with high quality is unusual and is expected to lead to the plant's wide utilization for forage.

The hybrid *Digitaria* has been known and distributed under the number given the cross, x46-2. It originated from a crossing accomplished in 1965 between *Digitaria setivalva* Stent (Plant Introduction No. 299892) and *Digitaria valida* Stent (Plant Introduction No. 299850). This cultivar has been named 'Survenola'. The widest use of 'Survenola' will be in the tropics. It is not adapted to the flatwoods soils of Florida, nor will it grow north of Gainesville, Florida (29°40' n. longitude 82°19' w. latitude).

Acknowledgements

A grateful acknowledgement is given Lewis Sussman for providing the Latin diagnosis and Robert Shaw for his review.

May 14, 1983

DAVID W. HALL*
STANLEY C. SCHANK**

* Department of Botany, University of Florida, Gainesville, FL 32611.

** Department of Agronomy, University of Florida, Gainesville, FL 32611.

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2. SCHANK, S. C., DAY, J. M. and DELGADO DE LUCAS, E. Nitrogenase activity, nitrogen content, *in vitro* digestibility and yield of 30 tropical forage grasses in Brazil. *Tropical Agriculture* 54(2):111-125. 1977.

Determinación del período crítico de competencia de las malezas con el frijol (*Phaseolus vulgaris* L.) 'Muy Finca' en el invierno.

Summary. Under the conditions of Lambayeque, Perú, a study to determine the critical period of competition of undergrowth weeds with the cultivation of beans (*Phaseolus vulgaris*) 'Muy Finca' was carried out in the Experimental Station of Vista Florida with irrigation of pre-seed planting. The results and the statistical analysis showed that: 1) the treatments without weeds during the first 70 days and during all cycle yielded 1 702 and 1 636 kg/ha of bean, respectively and 2) in the all cycle undergrowth weeded treatment, the yield was only 731 kg/ha of bean, which is a 57% reduction of the highest yield. Regarding the effects of the undergrowth weeded and un-weeded treatments on the bean crop, the critical period of competence of the weeds with beans in conditions of irrigation of pre-seed planting goes from the 14th to the 70th days after sowing of the crop.

En los campos de frijol si la eliminación de las malezas se realiza en forma inoportuna ocasiona una disminución significativa de la producción. De allí que surge la necesidad de conocer la época o período crítico de competencia de las malezas con el cultivo.

Bajo ciertas condiciones las malezas causan efectos severos durante los primeros 30 días del cultivo, con reducciones de cerca del 50% de la producción (1). Sin embargo, el grado de competencia de las malezas con los cultivos varía con la especie, variedad o cultivar y la densidad entre plantas y en las malezas por la especie, densidad, distribución y período de competencia.

En Cuba, se considera para el frijol arbustivo var. Cueto que el período crítico equivale a 50 días (4), considerándose que la competencia de las malezas deja de ser importante una vez que el cultivo haya "cerrado", cuando haya dado sombra completa del suelo. Cultivos como la yuca y la caña de azúcar tienen épocas críticas de competencia más prolongadas que cultivos de rápido desarrollo inicial como el frijol y el sorgo (5, 6).

Materiales y métodos

Este trabajo fue conducido en invierno de 1980 en la Estación Experimental del CIAG-Vista Florida, ubicada en la parte baja del Valle Chancay, Departamento de Lambayeque, Perú.

En este estudio, se probaron períodos sin infestación de malezas de 14, 28, 42, 56, 70, 84 días y todo el ciclo (100 días), en contraposición con períodos con maleza de 14, 28, 42, 56, 70 días y todo el ciclo (Cuadro 1). La siembra se efectuó en un terreno regado con anterioridad. Se usó el cultivar Muy Finca