Registration of Crop Cultivars

REGISTRATION OF DEX BROOMCORN
(Reg. No. 3)
D. E. Weibel, J. B. Sieglinger, H. C. Young, Jr.,
and R. A. Hunter

'Dex' broomcorn, *Sorghum bicolor* (L.) Moench, was released in 1964 by the Oklahoma Agric. Exp. Stn. and the ARS-USDA. The variety was selected from the cross 'Black Spanish' CI 827; 'Evergreen Dwarf'-CI 597-'Red Kafir' CI 34, × 'Leoti'-Black Spanish, CI 827, in a pedigree breeding program at the Southern Great Plains Field Station, Woodward, Okla. The pedigree of Dex was abbreviated to Exserted × 0-stem-1-2 during evaluation, a descriptive designation to indicate that the brush was exserted from the boot and that there was no center stem or rachis in the inflorescence.

Dex grows to the height of the western dwarf type of broomcorn (177 cm in 7-year average at Woodward), but it is somewhat shorter than 'Rennells No. 11'. Dex matures earlier than Rennells No. 11, but later than Black Spanish. Dex has red plant color, good exsertion, high quality brush, similar to that of Black Spanish, but the fibers are slightly shorter (46 cm) than those of Black Spanish with seed-bearing branches occurring along the terminal one-half to one-third of the head. The glumes are tan to reddish tan; the lemmae are awned. The kernels are light brown, small, obovoid, and almost entirely covered by the glumes.

At Woodward, Dex had a substantial yield advantage over Rennells No. 11 and Black Spanish in 7 years of testing, 1957-63. It also exhibited a high degree of tolerance to anthracnose stalk rot, *Colletotrichum graminicolum*, in areas where Rennells No. 11 and Black Spanish were damaged. Dex is best adapted to the eastern areas of broomcorn production in Oklahoma.

Breeder seed will be maintained by the Oklahoma Agric. Exp. Stn., Stillwater, OK 74074.

REGISTRATION OF GAHI 3 PEARL MILLET
(Reg. No. 40)
Glenn W. Burton

'GAHI 3' pearl millet, *Pennisetum americanum* (L.) K. Schum., was developed cooperatively by the ARS-USDA and the Georgia Coastal Plain Exp. Stn. at Tifton, Ga. in 1972 by the two agencies in 1972.

GAHI 3 is a first-generation hybrid between 'Tilt 23A' and 'Tilt 186'. Because Tilt 23DA is near-isogenic except for the d2 gene that reduces the height of Tilt 23DA by 50%, either female parent pollinated with the tall Tilt 23DA and Tilt 186 male produces GAHI 3. The short hybrid is currently used in the commercial production of Georgia State cross-pollination and seed harvest.

GAHI 3 is a very uniform, medium-stemmed, leafy, smooth (non-hairy) leaves and stems. Its nodes develop the reddish color of the female Tilt 23DA and approach maturation. The hybrid vigor of GAHI 3 is in this hybrid well suited for grain drill planting. It is later than GAHI 1 and furnishes good grazing for a longer period in the summer. It is immune to *Pyricularia grisea* (B. & C.) and *Lesion pleurinodes*.

GAHI 3 has been tested at Tifton in various ways. In several trials and years it has produced more dry matter than GAHI 1 and 10% more than 'Millen'. Delayed cutting it produced 41% and 61% more than 'Millex 22', in the third cuttings in 1970. Average daily gains and acre gains of animals grazing GAHI 3 exceeded those of 'Evergreen Dwarf'-CI 597-'Red Kafir' CI 34, × 'Leoti'-Black Spanish, CI 827, in a pedigree breeding program at the Southern Great Plains Field Station, Woodward, Okla. The pedigree of Dex was abbreviated to Exserted × 0-stem-1-2 during evaluation, a descriptive designation to indicate that the brush was exserted from the boot and that there was no center stem or rachis in the inflorescence.

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