REGISTRATION OF DEX BROOMCORN\(^1\)
(Reg. No. 3)
D. E. Weibel, J. B. Sieglinger, H. C. Young, Jr.,
and R. A. Hunter\(^2\)

'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 exerted 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, the lemmas are awned. The kernels are light brown, small, obvoid, 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.


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REGISTRATION OF GAHI 3 PEARL MILLET
(Reg. No. 40)
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'GAHI 3' pearl millet, *Pennisetum americanum* cv. Gahi 3, was released cooperatively by the ARS-USDA and the Univ. of Georgia Coastal Plain Exp. Stn. at Tifton, Ga., by the two agencies in 1972.

Gahi 3 is a first-generation hybrid between 'Tilt 23DA'\(^3\) and 'Tift 186'. Because Tift 23DA and Tilt 23DA are near-isogenic except for the d\(_g\) gene that reduces the height of Tilt 23DA by 50%, either female parent pollinated with the near-isogenic Tift 186 male produces Gahi 3. The short hybrid was currently used in the commercial production of Georgia pearl millet.

Gahi 3 is a very uniform, medium-stemmed, leafy hybrid with smooth (non-hairy) leaves and stems. Its nodes develop the reddish color of the female Tilt 23DA parent. Gahi 3 reaches maturity later than Gahi 1 and furnishes good grazing for 2 to 3 months in the summer. It is immune to *Pyricularia grisea* (stink (*Belonolaimus* sp.)) and lesion (*Pratylenchus* spp.)

Gahi 3 has been tested at Tifton in various ways. In several trials and years it has produced from 10 to 19% more dry matter than Gahi 1 and 20% more than 'Millex 22'. Delayed cutting it produced 41 and 61% more than Gahi 1 and 22%, respectively, in the third cuttings in 1970. Average dry matter compared with 609 for Rennells No. 11, 351 for Black Spanish, and 502 for Dex in 1966 and 1967. Results at Springfield, Colo., for 2 years, and at Urbana, Ill. for 3 years, also show Gahi 3 to be superior in yield to the older varieties. Deer is adapted to all of the broomcorn areas in the United States.

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


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