

Breeder seed will be maintained by the South Carolina Agric. Exp. Stn., Pee Dee Res. and Education Center, P. O. Box 271, Florence, SC 29503.

T.W. CULP, R.F. MOORE, AND J.B. PITNER (4)

References and Notes

1. Culp, T.W., and D.C. Harrell. 1979a. Registration of SC-1 cotton. *Crop Sci.* 19: 410.
2. ----, and ----. 1979b. Registration of Pee Dee 6520 germplasm line of cotton. *Crop Sci.* 19: 752.
3. Kappelman, A.J., Jr. 1969. Regional cotton fusarium wilt screening test. USDA-ARS CR-59-69.
4. Research agronomist and supervisory research entomologist, USDA-ARS, and resident director, Clemson Univ. Pee Dee Res. and Educ. Ctr., Florence, SC 29503. Registration by the Crop Sci. Soc. of Am. Cooperative investigations of USDA-ARS and the South Carolina Agric. Exp. Stn. Journal paper no. 2289 of the South Carolina Agric. Exp. Stn. Accepted 30 July 1984.

REGISTRATION OF HOUND DOG TALL FESCUE

'HOUND DOG' tall fescue (*Festuca arundinacea* Schreb.) (Reg. no. 28) was developed and released by International Seeds, Inc. of Halsey, OR. The New Jersey Agricultural Experiment Station provided some of the germplasm used in the development of this cultivar. Hounddog is an advanced generation synthetic cultivar selected from the progenies of seven clones. The progeny of one clone designated as LPK-1, selected from a shaded lawn in Lexington, KY, provided approximately 50% of the parental germplasm of Hounddog. This clone received pollen from a diverse group of turf-type tall fescue plants selected from 'Rebel' and from old turfs located in Alabama, Georgia, Kentucky, New Jersey, North Carolina, Pennsylvania, and Texas. The remaining one-half of the parental germplasm was derived from tillers selected from six attractive turf plots chosen from a closely mowed lawn trial located near Halsey. These six turf plots were each established from the progeny of single spaced-plants selected for dark green color, good density, fine leaves, and freedom from disease. Four of the above spaced-plant selections were derived from the germplasm source Rutgers T-1, pollinated with selections from 'Missouri 96'. The other two clones were selected from the progeny of a plant selected from an old turf in Knoxville, Tennessee, pollinated with Rutgers T-1. Interplant competition in closely-mowed turf trials was used to eliminate poorly adapted segregates and help identify germplasm with improved turf performance. ISI-791 was the experimental designation of Hounddog. The first certified seed was produced in western Oregon in 1982.

Hounddog is a leafy, persistent, turf-type tall fescue capable of producing an attractive, moderately dense turf with excellent tolerance of heat, drought and moderate shade. The turf is darker green, finer in texture, and has a slower rate of vertical growth compared with 'Kentucky 31' tall fescue. Hounddog has shown good winterhardiness and good summer performance in New Jersey turf trials. This cultivar has exhibited improved resistance to the large brown patch disease caused by *Rhizoctonia solani* Kuhn, and many races of crown rust incited by *Puccinia coronata* Corda. It has very good resistance to the netblotch disease caused by *Helminthosporium dictyoides* Drechs. Hounddog is well adapted to a wide range of soil types. Fertility requirements are substantially lower than the amounts needed for good performance of Kentucky bluegrass (*Poa pratensis* L.) and the improved turf-type perennial ryegrasses (*Lolium perenne*

L.). Hounddog should be useful for the production of a medium low maintenance turf in either full sun or in light to moderate shade in most regions where tall fescue is well adapted for turf use. It has medium maturity in seed production and a high seed yield potential.

Breeder seed is produced by International Seeds, Inc. Propagation of seed should be limited to two generations of increase from breeder seed, one generation each of foundation and certified.

United States Plant Variety Protection Certificate no. 8300011 has been issued for Hounddog tall fescue.

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References and Notes

1. Research director, Pickseed West, P.O. Box 888, Tangent, OR 97389 (former research director, Int. Seeds, P.O. Box 168, Halsey, OR, 97348); research director, Int. Seeds; and professor, Soils and Crops Dep., New Jersey Agric. Exp. Stn. Publication no. D-15166-3-84, New Jersey Agric. Exp. Stn., Cook College, Rutgers Univ., New Brunswick, NJ 08903. Some of this work was conducted as part of NJAES Project no. 15166, supported by New Jersey Agric. Exp. Stn. funds, other grants, and gifts. Additional support was received from the United States Golf Assoc. Green Section Res. and Educ. Fund. Registration by the Crop Sci. Soc. of Am. Accepted 25 June 1984.

REGISTRATION OF WC-C75 PEARL MILLET

'WC-C75' GRAIN cultivar of pearl millet [*Pennisetum americanum* (L.) Leeke] (Reg. no. 95) was developed through recurrent selection using the 'World Composite' at the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). It was tested in India by the Ministry of Agriculture, Government of India and was released by them as WC-C75 on 29 May 1982. WC-C75, also named as ICMV-1 by ICRISAT, averaged 98% of the grain yield of the widely grown hybrid 'BJ104' in 140 replicated tests conducted by the All India Millets Improvement Project from 1977 to 1981(1). A semi-early cultivar, WC-C75 matures about 4 days later than BJ 104 but gives 20% more dry fodder, valued as animal feed after grain harvest. WC-C75 has good resistance to downy mildew caused by *Sclerospora graminicola* (Sacc.) Schroet (2.4% incidence in the 1977-1981 trials compared to 9.7% for BJ 104), and while still moderately susceptible to ergot caused by *Claviceps fusiformis* Loveless, it is much less vulnerable than any existing hybrid to epidemics of this disease. WC-C75 is medium height (185-210 cm) with robust stems, flowering in 48 to 51 days, maturing in 80 to 85 days. Anther color is mixed, cream and purple, heads are medium long (22-28 cm), cylindrical to slightly tapering, compact, non-bristled, with short pale glumes. Grain is bold, 7 to 8 g/1000 seeds, obovate, slate gray in color with a vitreous endosperm. Grain protein is average for pearl millet (9.3% in 32 tests). Seed dormancy and tolerance to mold damage when ripening in humid conditions is superior to BJ 104.

The World Composite random mating parental population of WC-C75 was constituted in Nigeria in 1971 at the Institute for Agricultural Research, Ahmadu Bello University, from derivatives of numerous crosses between world wide sources of pearl millet germplasm and Nigerian early maturing landraces locally known as "gero". Bulk seed of the World Composite was supplied to ICRISAT in 1973.

Full-sib recurrent selection was conducted on the World Composite. In 1975 441 full-sib families derived from selected, heterozygous plants in the previous generation, were tested at Coimbatore, (South India), Hissar, north India

and ICRISAT Center. Seven superior full-sib families were selected at Coimbatore, using supporting data from the other two locations. Disease free plants from the seven full-sib families were selfed in a downy mildew screening nursery at ICRISAT Centre. The resulting S1 bulk was sown in the next season's downy mildew nursery, and bulk pollen was used to enforce intermating. The experimental variety produced by this intermating was tested as WC-C75. In the five subsequent generations, before the production of breeder seed, a small proportion of the plants in the cultivar, which was naturally intermated in isolation, were discarded for poor agronomic characteristics.

Breeder seed has been made available to the National Seeds Corporation and many other government and non-government Institutions in India, and will be maintained by the Pearl Millet Improvement Program, ICRISAT.

D.J. ANDREWS, S.C. GUPTA, AND PHERU SINGH(2)

References and Notes

1. Harinarayana, G. 1982 AICMIP: Developments since 1977. Millets Workshop, ICAR, 26-28 Apr. 1982, Coimbatore, India.
2. Professor, Dep. of Agronomy, Univ. of Nebraska, Lincoln, NE 68583, formerly program leader and plant breeder, Pearl Millet Improvement Program, ICRISAT; Pearl millet breeder, ICRISAT West African Co-operative Program, CNRA, Bambey, Senegal; and plant breeder, Pearl Millet Improvement Program, ICRISAT Patancheru P.O., A.P. 502 324, India respectively. Registration by the Crop Sci. Soc. of Am. Accepted 30 July 1984.

REGISTRATION OF COWLEY SWEET SORGHUM

'COWLEY' is a sweet sorghum, *Sorghum bicolor* (L.) Moench, (Reg. no. 124) cultivar developed for sucrose and biomass production in the Lower Rio Grande Valley of Texas. The cultivar was released in 1984 through the cooperative research programs of the Texas Agricultural Experiment Station and the USDA-ARS. Cowley was selected in 1971 from an F₂ progeny of the cross Mer. 64-7 × Mer. 64-6 and was evaluated as Mer. 75-10.

The panicle of Cowley is erect, compact to semicompact, and elliptic in shape. The panicle branches arise in whorls from eight nodes. Pubescence on the dark brown to black glumes is semideciduous except on the edges and callus where it is longer and more persistent. The indurate glumes have a sharp apex and cover approximately one-half of the caryopsis at maturity. The glumes do not clasp the grain at maturity and are nonpersistent in the threshed seed. The seed of Cowley is medium to large in size, white or cream colored, ovate, and displays a dimple. Cowley possesses a white pericarp and a brown testa. The endosperm is partly chalky with a medium to thick corneous layer. Culms of Cowley are juicy and sweet. The coleoptile is green.

Cowley is highly resistant to leaf anthracnose and stalk red rot, both caused by *Colletotrichum graminicola* (Ces.) G. W. Wils., as well as to rough leaf spot caused by *Ascochyta sorghina* Sacc. It has good resistance to head smut caused by *Sphacelotheca reiliana* (Kuehn) Clint and fair resistance to downy mildew caused by *Perenosclerospora sorghi* (Weston and Uppal) C. G. Shaw and maize dwarf mosaic virus. Cowley does not exhibit leaf burn when exposed to most cotton insecticides.

Cowley is a late season cultivar that matures about 2 to 4 weeks later than 'Wray'. It is similar in height to Wray ranging from 2.5 to 2.7 m. Unlike Wray, Cowley possesses a nontapering barrel. The juice quality of Cowley is equal to that of Wray while its yields of millable stalks and sugar per hectare are approximately 20% greater than Wray.

Breeder seed will be maintained at the Texas Agric. Exp. Stn., Weslaco, TX 78596.

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References and Notes

1. Assistant professor, Texas Agric. Exp. Stn., Weslaco, TX 78596; supervisory research chemist, USDA-ARS Agric. Products Quality Res. Unit, Weslaco, TX 78596; and supervisory research agronomist (retired), USDA-ARS Sugar Crops Field Stn., Meridian, MS 39301. Technical article 19452 of the Agric. Exp. Stn., Texas A&M Univ., College Station, TX 77843. This research was conducted in cooperation with the USDA-ARS, Southern Region. Registration by the Crop Sci. Soc. of Am. Accepted 30 July 1984.