2 cm less than that of Certified Madole in most years. Leaf number and spacing of DF 485 and DF 300 are very similar. In comparison to other commercial dark-fired cultivars, DF 485 has fewer leaves that are spaced farther apart on the stalk. The growth habit of DF 485 is less upright and leaf color is darker green in comparison to Certified Madole or DF 300. Cured leaf of DF 485 is darker brown in color than that of other dark fire-cured cultivars under normal curing conditions.

DF 485 was evaluated in 26 variety performance trials in Tennessee from 1980 through 1984. Average yields of DF 485, DF 300, and Certified Madole in nonblack shank infested soils were 2678, 2613, and 2658 kg/ha, respectively; trials conducted in black shank infested soils gave respective yields of 2007, 2017, and 1772 kg/ha. Although both DF 485 and DF 300 have moderate resistance to black shank, substantial stand losses may occur in heavily infested fields under severe drought stress. Survival rates in a nursery heavily infested with race 0 black shank were 87, 82, and 38% for DF 485, DF 300, and Certified Madole, respectively. Under normal growing conditions, the quality of the cured leaf of DF 485 was comparable to that of Certified Madole and DF 300. When produced under very wet growing conditions, the cured lower leaves of DF 485 had a greenish color that resulted in a lower sale price. Although DF 485 is well adapted for the production of dark fire-cured tobacco in middle Tennessee and western Kentucky, limited information has indicated that it does not produce acceptable quality dark air-cured leaf. Results of chemical analyses indicated that levels of important chemical components of DF 485 were well within acceptable ranges.

Breeders seed of DF 485 will be maintained and distributed by the University of Tennessee Tobacco Experiment Station, Route 5, Box 113, Greenville, TN 37743.

R. D. MILLER AND P. P. HUNTER (4)

References and Notes

2. The original cross was made by Dennis H. Latham, former associate professor, Univ. of Tennessee Dep. of Agricultural Biology, Springfield, TN.
3. Breeding line D70-581 was obtained in 1970 from John Cross, USDA, Beltsville, MD.

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REGISTRATION OF ‘WILLIAMS’ WHEAT

‘WILLIAMS’ (Reg. no. 721) (PI 508082) is a soft red winter wheat (Triticum aestivum L.) developed by the South Carolina Agricultural Experiment Station and released in May 1984. Williams originated as an F3 bulked head row selection made in 1977 from the cross ‘Knox 62’/‘Coker 70-14’.

Williams was tested as SC770164 in the Uniform Southern Soft Red Winter Wheat Nursery from 1981 to 1983 and from 1980 to 1983 in the South Carolina official variety test trials. During the state-wide testing period, Williams outyielded ‘Coker 68-15’ by 7% over 16 location-years. Under South Carolina conditions, Williams matures about 5 to 7 days later than ‘Florida 301’ and 2 to 3 days earlier than ‘Coker 762’. Williams is about 4 to 6 cm shorter than Florida 301, with 2 to 5% taller (5 to 10 cm) plants. Tests during the 1980 season by the USDA-ARS Soft Wheat Quality Laboratory, Wooster, OH, indicated that Williams was comparable to Coker 68-15 in milling and baking qualities.

The plant type of Williams is similar to that of ‘McNair 1003’. Spikes are lax, inclined, fusiform, midlong to long, and unevenly apically awnletted with some longer awns. Glumes are glabrous, white, midlong to long with midwide oblique shoulders. Beaks are moderately long, mostly recurved, midwide, and obtuse. Grains are red, short to midlong, and ovate, with a midsized germ, and a midwide and middeep to deep crease. Cheeks are angular, and the brush is midsized and midlong. Auricles are narrow to midwide, strongly curved, and turn white as the plant matures.

Williams is moderately susceptible to most races of leaf rust (caused by Puccinia recondita Rob. ex Desm. f. sp. tritici). It is moderately resistant to prevailing races of powdery mildew (incited by Erysiphe graminis DC f. sp. tritici E. Marchal). Incidence of powdery mildew has been consistently low with no apparent increase since Williams was released. Williams has been rated resistant to current races of Hessian fly [Mayetiola destructor (Say)] in South Carolina (J.W. Chapin, 1986, personal communication).

Variety protection under the Plant Variety Protection Act is not contemplated for Williams. Breeder seed will be maintained by the Agronomy and Soils Department, Clemson University, Clemson, SC 29634. Foundation seed will be available from the South Carolina Foundation Seed Association, Clemson University, Clemson, SC 29634.

W. D. GRAHAM, G. C. KINGSLAND, AND R. H. GAMBRELL (1)

References and Notes

1. Professor, agronomy and soils; professor, plant and pathology and physiology; and agricultural science associate, agronomy and soils, Clemson Univ., Clemson, SC 29634. Published with the approval of the South Carolina Agric. Exp. Stn. as Technical Paper no. 2670. Registration by the Crop Sci. Soc. of Am. Accepted 30 May 1987.

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REGISTRATION OF ‘GENEVA’ WINTER WHEAT

‘GENEVA’ is a soft white winter wheat (Triticum aestivum L.) (Reg. no. 722) (PI 505819) developed and released by the Cornell Agricultural Experiment Station for production in the northeastern USA. It was developed using the bulk method of breeding with selection in early generations for white kernel color and large kernels. The pureline originated as a single plant selection from an F, bulk population of the 1961 cross, ‘Ross Selection’/3/(NY5207a-BB-34) ‘Burt’/‘Genesee’/CI12658/4/Genesee. Ross Selection is a cultivar introduced from Germany by Carl Ross in the early 1950s. It is believed to be synonymous with ‘Heine’s VII’ based on plant morphology and electrophoretic mobility of gladiin seed proteins (R.L. Clements, 1986, personal communication). Geneva was tested in New York since 1968 and first entered the Uniform Eastern Soft White Winter Wheat Nursery in 1979.

Geneva reaches anthesis 3 to 5 days earlier than other soft white winter wheat cultivars grown in New York, but matures about the same time. Geneva has yellow-green stems and leaves at booting and hollow white stems at maturity. At heading the flag leaf is erect and straight, and the stems have a waxy bloom. Spikes are middense, fusiform, apically