REGISTRATION OF BURLEY 64 TOBACCO1
(Reg. No. 60)
C. L. Gupton and M. O. Neas2

'Burley 64' is a multiple-disease resistant burley tobacco (Nicotiana tabacum L.). The new cultivar was developed jointly by the Agricultural Research Service, U.S. Department of Agriculture, and the Tennessee Agricultural Experiment Station. It was tested as Greeneville 64A and released in 1973.

Burley 64 originated from the cross 62-231-25H × 62-486-25H and was in the F3 generation when released. The 62-486-25H parent contributed resistance to black root rot, tobacco mosaic, and wildfire, which originated from N. debneyi, N. glutinosa, and N. longiflora, respectively. This parent also contained resistance to Fusarium wilt and black shank. A high leaf number and resistance to all of the diseases listed above, except black root rot, were contributed by 62-231-25H. Survival of Burley 64 was about 93% in nurseries infested with either race 0 or race 1 of Phytophthora parasitica Dast. var. Nicotianae (Breda de Haan) Tucker. About 83% of Burley 64 plants remained symptomless when inoculated with Fusarium oxysporum Schlecht. f. Nicotianae (J. Johnson) Snyd. & Hans.

Burley 64 flowers 7 to 9 days later than 'Burley 49' and produces more leaves than any present commercial cultivar. However, if it is topped to 22 or 23 leaves about August 1, the upper leaves will be sufficiently expanded and mature at harvest. Similar to Burley 49, an average plant height of only 120 cm and the upright leaves of this cultivar contribute to the ease of lifting and a minimum of leaf breakage during harvest, and facilitate air flow during curing. Leaves of the new cultivar are of about the same width as but average about 2.5 cm longer than those of Burley 49.

Burley 64 has met acceptable standards for physical and chemical characteristics of cured leaf and smoke flavor in evaluations made by the laboratories of leading cigarette manufacturers. The cultivar was evaluated in the Tennessee yield and quality trials from 1968 through 1972 and in the 1972 Tennessee-Kentucky-Virginia-North Carolina Regional Burley Variety Test. The average yield of Burley 64 in these tests was about 3,013 kg/ha, which was 294 kg/ha more than that of Burley 49. Burley 64 flowers 7 to 9 days later than 'Burley 49' and produces more leaves than any present commercial cultivar. However, if it is topped to 22 or 23 leaves about August 1, the upper leaves will be sufficiently expanded and mature at harvest. Similar to Burley 49, an average plant height of only 120 cm and the upright leaves of this cultivar contribute to the ease of lifting and a minimum of leaf breakage during harvest, and facilitate air flow during curing. Leaves of the new cultivar are of about the same width as but average about 2.5 cm longer than those of Burley 49.

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Breeder seed will be maintained and distributed by the University of Tennessee Tobacco Experiment Station, Route 5, Greeneville, TN 37743.

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REGISTRATION OF BRONZE WHEAT1
(Reg. No. 538)

J. S. Quick, D. E. Walsh, K. L. Lebsock, and R. C. Hoveland

'Ward' (Triticum durum Desf.), CI 15892, is a spring durum wheat developed cooperatively by the North Dakota Agricultural Experiment Station from the second cycle of recurrent selection for winterhardiness and earliness.

Interpollinations were made between two of the hardiest F3 lines selected from two crosses, CI 7780/Ld 362 (Pyrenophora trichostoma) and CI 7780/Ld 362 (Pyrenophora trichostoma) and 'Scout 66,' Lancer, 'Scoutland,' and 'Centurk,' but 'Centurk' was susceptible.

Bronze is resistant to shattering, having shown 0.5% loss in our tests.

Bronze has a milling value between 'Omaha' and Lancer and is superior to Lancer and Scout 66 in baking characteristics. Spikes of Bronze are inclined to nodding, medium size, and fusiform. Glumes are glabrous, brown, narrow, to midwide, with narrow to midwide oblique suture. Beaks are acuminate and moderately long. Beaks are hard, ovate, midlong; crease midwide and rounded to angular; brush midized, midlong.

Breeder seed will be maintained by the North Dakota Agricultural Experiment Station.

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1 Registered by the Crop Science Society of America. Cooperative investigations of the Southern Region, ARS, USDA, and the Department of Plant and Soil Science, Tennessee Agricultural Experiment Station, Knoxville, TN 37901. Received April 16, 1974.

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