to all other accessions of prairie sandreed tested. At Bridger, the average seed production has been 185 kg/ha under irrigation; plant height has been 86 and 178 cm under dryland and irrigated conditions, respectively.

The increase of Goshen is limited to one generation each of foundation and certified seed classes. The USDA, SCS Plant Materials Center at Bridger, Mont. will maintain breeder and foundation seed.

**REGISTRATION OF KY 15 TOBACCO**

(Reg. No. 82)

G. B. Collins, C. C. Litton, P. D. Legg, and J. H. Smiley

'Ky 15' tobacco (*Nicotiana tabacum* L.) was developed and released cooperatively in 1977 by the Kentucky Agricultural Experiment Station and the FR, SEA, USDA. Ky 15 is an air-cured burley cultivar (type 31) with multiple disease resistances and excellent yield potential. The cultivar was evaluated under the experimental number Ex 2A and was developed using a modified backcross procedure after the initial cross involving 'Ky 14' and 'Burley 49'. Backcrosses were made to Ky 14, 'Burley 21', and 'Ky 10'. Ky 15 was released in the F2 generation after the final backcross.

The new cultivar is highly resistant to tobacco mosaic virus, wildfire (*Pseudomonas tabaci* (Wolf and Foster) E. L. Stevens), and black root rot (*Thielaviopsis basicola* (Berk. and Br.) Ferr.). Ky 15 carries medium to high resistance to fusarium wilt (*Fusarium oxysporum* (Schlecht.) Wr. var. *nicotianae* J. Johnson), and it is classified as tolerant in reaction to tobacco etch and tobacco vein mottling viruses. Resistance to tobacco mosaic virus, wildfire, and black root rot is controlled by different single dominant genes originally transferred from *N. glutinosa* L., *N. longiflora* Cav. and *N. debneyi* Domini, respectively. The fusarium wilt resistance was derived from a *N. tabacum* source (blue-cured cultivar 'McCuller 27'), and the resistance is multigenic in nature.

Ky 15 yields were 129 kg/ha more than Ky 10 and 554 kg/ha greater than Burley 49 in replicated tests conducted over a 5-year period at numerous locations in Kentucky. Ky 15 yields were significantly higher than those recorded for Burley 49. Ky 15 flowers 5 to 7 days earlier than Ky 10 and averages 18 cm taller than Ky 10. The leaf size of Ky 15 is slightly shorter and narrower than that of Ky 10 at the middle and upper stalk positions. Ky 15 is a standup cultivar, with an average of 21 usable leaves per plant. The average total alkaloid content is 5.2% on a dry weight basis. Chemical composition of cured leaves and tests of smoking quality were found to be acceptable for Ky 15.

Breeder and foundation seed classes will be maintained by the Agronomy Department, Kentucky Agricultural Experiment Station, Lexington, KY 40506.

1 Registered by the Crop Science Society of America. The investigation reported in this paper (77-3-11-225) is in connection with a project of the Kentucky Agricultural Experiment Station and it is published with the approval of the Director. Accepted 25 Apr. 1978.

2 Professor of agronomy, Univ. of Kentucky; research agronomist and research geneticist, FR, SEA, USDA; and extension professor of agronomy, Univ. of Kentucky, respectively, Lexington, KY 40506.

**REGISTRATION OF POTOMAC WHEAT**

(Reg. No. 598)

J. W. Johnson, T. M. Starling, and J. G. Shannon

'Potomac' wheat (*Triticum aestivum* L. em Thell.), CI 15922, is a soft red winter cultivar developed by the Virginia Agricultural Experiment Station and released jointly by the Maryland and Virginia Agricultural Experiment Stations in 1975. Potomac was selected in 1956 in the F6, generation following a complex series of crosses with the final cross in 1956. The parentage of Potomac is 'Pennoil'/4/Norin 10'/Brevor/3/.

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