Registration of ‘VA 119’ Tobacco

‘VA 119’ flue-cured tobacco (Nicotiana tabacum L.) (Reg. no. CV-123, PI 641060) was developed by the Virginia Agricultural Experiment Station and approved for release in 2003. It was developed from the cross ‘Coker 371 Gold’ (PI 552524) (Johnson et al., 2002)/‘VA 116’ (PI 543922) (Wilkinson et al., 1991). The initial cross was made in 1993. The pedigree system of breeding was used. Individual plant selections were made through the fifth generation. Selection in earlier generations was for plant type and black shank [caused by Phytophthora parasitica Dastur var. nicotianae (Breda de Haan) Tucker; syn P. nicotianae Breda de Haan var. nicotianae G.M. Waterhouse] resistance. Final selections were made from replicated yield and quality trials. The base for this cultivar is a composite of F5 seed collected from six plants in a single F4 progeny row.

VA 119 was evaluated as VPI 119 in the Regional Flue-Cured Tobacco Variety Evaluation Program in 1999 and 2001 (Bowman et al., 1999, 2001) and in replicated yield trials at the Virginia Tech Southern Piedmont Agricultural Research and Extension Center for 5 yr (1997 to 2001). The average yield of VA 119 and the two check cultivars, NC 2326 and NC 95, in the Regional Program were 2937, 2711, and 3046 kg ha\(^{-1}\), respectively. Percentage of usable cured leaf of VA 119 was 16 and 23% greater than the average of the two check cultivars in 1999 and 2001, respectively. VA 119 has acceptable cured leaf chemical and physical characteristics and acceptable smoke flavor based on evaluations conducted as part of the Regional Flue-Cured Variety Evaluation Program. Comments from cooperators in the second year of the Regional Program indicate VA 119 ripens fast, is quality tobacco in all stalk positions, is easy to cure, has good color, and handles well. VA 119 has a low level of resistance to black shank and bacterial wilt [caused by Pseudomonas solanacearum (Smith) Smith]. Disease resistance data was collected from replicated field tests conducted in 1999 and 2001 in the Regional Flue-Cured Variety Evaluation Program (Flue-Cured Tobacco Variety Evaluation Committee Report). The average percentage of disease for VA 119 and K 326 in black shank trials was 72 and 84%, respectively. The average percentage of disease for VA 119 and K 326 in bacterial wilt trials was 45 and 40%, respectively.

Data from 5 yr of replicated tests indicated average yield of VA 119 (3904 kg ha\(^{-1}\)) was similar to K 326 (3932 kg ha\(^{-1}\)). Average dollar per quintal (US$180 and US$181) and grade index (74 and 75) for VA 119 and K 326, respectively, were similar. VA 119 was about 97 cm tall, produced 18 harvestable leaves when topped, and flowered about 57 d after transplanting. The average length and width of middle and top leaves were 69, 31, 64, and 30 cm, respectively. VA 119 matures three ground suckers per 24-plant plot. VA 119 averages three ground suckers per 24-plant plot. VA 119 is adapted to all flue-cured tobacco growing regions in the USA. Exclusive release of VA 119 has been granted to Cross Creek Seed Inc. Ownership of VA 119 is maintained and distributed by the Southern Piedmont Agricultural Research and Extension Center, Virginia Institute and State University, 2375 Darvills Road, Blackstone, VA 23824. Small quantities of seed may be obtained from the corresponding author for at least 5 yr.

C.A. Wilkinson,* T.D. Reed, and W.M. Tilson

References


Virginia Tech Southern Piedmont Agric. Res. and Ext. Center, 2375 Darvills Road, Blackstone, VA 23824. Registration by CSSA. Received 25 Oct. 2005. *Corresponding author (wilki@vt.edu).

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