REGISTRATION OF GREENEVILLE 107
BURLEY TOBACCO GERMPLASM

(Reg. No. GP17)

C. L. Gupton

GREENEVILLE 107, a multiple disease resistant Burley tobacco (Nicotiana tabacum L.), was developed and released cooperatively by AR-SEA-USDA and the Tennessee Agric. Exp. Stn. Greeneville 107 is the first Burley tobacco germplasm to be released with resistance to potato virus Y (PVY), tobacco vein mottling virus (TVMV), and tobacco etch virus (TEV). In addition, the line is resistant to black root rot, incited by Thielaviopsis basicola (Berk & Br) Ferr.; tobacco mosaic; wildfire, incited by Pseudomonas tabaci (Wolf & Foster) Stevens; and black shank, incited by Phytophthora parasitica Dast. var. nicotianae (Breda de Haan) Tucker which originated from N. debneyi, N. glutinosa, N. longiflora, and 'debneyi.

Greeneville 107 originated from the cross referred to as "Virgin A Mutant") × "Burley 49". This line was developed by the backcross method using Burley 49 as the recurrent parent. The line was in the BC& generation when it was released in 1979. T.I. 1406 provided the source of resistance to PVY, TVMV, and TEV. Resistance to the other diseases was contributed by Burley 49.

Greeneville 107 is similar in plant type to Burley 49, but it may be distinguished in the field by a distinctly green cast and characteristically wrinkled appearance of the leaves. Both genotypes have relatively short stalks with about the same size and shape.

In replicated trials, Greeneville 107 yielded 2,970 kg/ha compared to 3,077 kg/ha for Burley 49. The average grade index (an estimate of quality) was 0.560 and 0.575 for Greeneville 107 and Burley 49, respectively. An average of 51% of the Greeneville 107 and 56% of the Burley 49 cured leaf met the standards of major cigarette manufacturers leaf grades. An expert smoking panel rated Greeneville 107 acceptable but slightly lower in burley taste and flavor than Burley 49.

Grasshoppers (Melanoplus spp.) and Japanese beetles (P. japonica Newman) have a pronounced preference for Greeneville 107 when it is grown in plots at random among other genotypes.

Seeds of Greeneville 107 will be maintained by the Univ. of Tennessee Tobacco Exp. Stn., Route 5, Box 113, Greeneville, TN 37743 and distributed in small amount upon written request.

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CORRECTIONS

In volume 19:727–728 line 6 of the "Materials and Methods" section should read "...and no non-nodulating plants have been identified..."

In volume 19:55 in the Materials and Methods section under the subheading, "Carbon Exchange Rates," the fourth sentence should read, "The system produced a quantum flux density at the leaf surface of about 1,000 μE m⁻² sec⁻¹ of PAR." In volume 19:701 only part of Fig. 4B is shown. The complete figure is shown below.