REGISTRATION OF CROP VARIETIES

The level of resistance to Helminthosporium turceum Pass. in Cumberland is superior to that of Common sudangrass and about equal to that of Greenleaf and Piper.4
Seed production of Cumberland will be on a three-generation basis, namely; breeder, foundation and certified. Breeder seed will consist of seed of lines SG 2-7, SG 7-5 and SG 1-16 each produced under isolation. Foundation seed is produced by planting a mixture of equal weights of viable seed of the three lines. Certified seed is produced from foundation seed. The Tennessee Agricultural Experiment Station will maintain breeder seed.

REGISTRATION OF KY 170 TOBACCO

(Reg. No. 33)

C. C. Litton and G. W. Stokes

'KY 170' was the first dark fire-cured tobacco variety developed with resistance to black root rot (caused by Thielaviopsis basicola Berk & Br. Ferr.) from Nicotiana delmeyi. The resistance, a single dominant factor, was first transferred and stablilcized with breeding line, BR-1. Crosses to burley and dark tobacco types resulted in a wildfire, mosiac, and black root rot resistant breeding line designated Bel 8-11. Crosses of Bel 8-11 were made to 'Little Wood' and 'KY 153.' The parentage of KY 170 includes the following varieties with backcrosses in the order shown: BR-RR-1-56A × BR-1, GR 27, 'Burley 21,' 'Madole,' Madole, Little Wood, KY 153 × KY 153. Burley 21 was the source of resistance to wildfire, from N. longiflora Cav., and to tobacco mosaic, from N. glutinosa, both inherited as single dominant factors. The variety was released to growers in 1966.

Ky 170 produces plants of medium height with two to four more leaves per plant than Ky 151. The leaves are wider, but shorter and are held off the ground better than those of 'KY 151.' This variety flowers on the average 3 to 5 days later than Ky 151. Ky 170 is best fire-cured and produces excellent sniff and good cutting tobacco. When compared with Ky 151, Ky 170 yields are approximately 10%, higher, with leaf of slightly lower quality than Ky 151. Ky 170 produces plants of medium height with two to four more leaves per plant than Ky 151. The leaves are wider, but shorter and are held off the ground better than those of 'KY 151.' This variety flowers on the average 3 to 5 days later than Ky 151. Ky 170 is best fire-cured and produces excellent sniff and good cutting tobacco. When compared with Ky 151, Ky 170 yields are approximately 10%, higher, with leaf of slightly lower quality than Ky 151.

Ky 151 is an especially good producer in a dry season and produces excellent quality leaf. In wet seasons, it produces a very thin leaf and is not as suitable for scrap chewing purposes. Additional information on the variety has been published.5

'HAVAYA 501' was derived from a cross of Havana 501 and 'Burley 21.' The cross was made in an attempt to produce a variety more resistant to wildfire than Havana 501. Havana 501 is superior to Havana 503 in both disease resistance and quality characteristics. The new variety was released to certified seed growers for seed increase in 1966.

Three years of testing in replicated plots on the Ashton Research Farm and in farmer field trials have shown that Havana 503 produces as good or better yield and leaf quality than three older certified varieties. Havana 503 has homozgyous resistance to wildfire and tobacco mosaic, and a high degree of resistance to the black root rot disease.

Havana 503 has a taller stalk after topping than Havana 142 or 307. It has fewer leaves than Havana 142 but more than Havana 307 or 501. The leaves are longer, but not as wide as the leaves on Havana 501, 142, or 307. An outstanding characteristic is the production of smaller and fewer suckers than other varieties. Havana 503 matures 3 days later than Havana 142 and 4 to 7 days later than Havana 501 and 307. It cures faster than other varieties and produces a larger percentage of uniform light-colored leaves. It is a good stand-up type. This helps to protect the plant from excessive wind and leaf breakage when harvested.

The quality ratings for Havana 503 have been higher than for other Havana varieties, indicating a greater percentage of leaf in the cigar-binder grades. Chewing tobacco manufacturers like Havana 503 better than Havana 501, but not as well Havana 142. Cigar manufacturers seem to like the body and light color of Havana 503 as a natural binder and wrapper. Smoking and chemical characteristics have been satisfactory.


REGISTRATION OF KY 10 AND KY 12

(Reg. Nos. 36 and 37)

G. W. Stokes and W. D. Valleau

'KY 10' and 'KY 12' are good quality high-yielding burley tobacco varieties released to growers in 1960 and 1962, respectively. KY 10 has high resistance to tobacco mosaic and a moderate level of resistance to fusarium wilt and black root rot. KY 12 was the first burley variety to carry high resistance to black root rot, wildfire, fusarium wilt, and tobacco mosaic. KY 10 resulted from the cross 'VA B29' × 'BB 56-53.' VA B29, Virginia variety, is a light-colored high-yielding variety. The breeding line BB 56-53 carried tobacco mosaic and black root rot resistance. The parentage of KY 12 includes the following breeding lines and varieties in the order given: 'Warner' × 'Burley 21,' × EX 1, 'KY 10' × Burley 21, × EX 4. Burley 21 was the source of wildfire resistance and EX 4 the source of high fusarium wilt and black root rot resistance.

KY 10 and KY 12 are standup types with 30 to 35 leaves per plant before topping. The leaves of KY 10 are broad and close together on a short stalk. The variety is lighter colored in the field than most varieties. It has been outstanding in yields with quality of leaf somewhat lower than Burley 21. It matures 8 to 10 days later than Burley 21. Because of its high-yielding utility and acceptable quality, KY 10 has been used extensively with Burley 21 for making F1 hybrids. KY 12 grows taller, has a darker green color, and matures 10 to 12 days later than Burley 21. The leaves in the upper part of the plant are smaller than those of KY 10 and Burley 21. KY 12 produced higher yields of lower quality leaf than Burley 21. It should be of special benefit to growers who have had losses from black root fusarium and black rot.

1Ky 10 and KY 12 were developed by the Kentucky Agricultural Experiment Station, Lexington, Kentucky. The investigation reported in this paper (No. 66-11-96) is in connection with a project of the Agricultural Experiment Station and is published with the approval of the Director. Received Nov. 10, 1967.

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