REGISTRATION OF CULTIVARS

ing in fields infested with soybean-cyst nematodes and/or phytophthora rot.

Distinguishing characteristics of Mack are purple flowers, tawny pubescence, light tan pod walls, yellow seed coats with a shiny luster and black hila. Maturation, plant height, seed quality, and chemical composition of seed are nearly similar to 'Dare.' Shatter resistance is superior to that for Dare, but Mack lodges somewhat more than Dare. The disease and nematode reaction for Mack is similar to that for Pickett 71, but maturity is approximately 16 days earlier.

Yields of Mack have been similar to 'Hill' and Dare when grown where phytophthora rot and soybean-cyst nematodes were not problems but higher where either or both of these pests reduced yields. Mack is susceptible to root-knot nematodes. Other information on Mack has been published.

The Arkansas Agricultural Experiment Station will maintain breeder seed.

1Registered by the Crop Science Society of America. USRL No. 784. Received Feb. 15, 1972.

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REGISTRATION OF MOSAIC RESISTANT LITTLE CRITTENDEN, BLACK MAMMOTH, MADOLE, AND LITTLE WOOD TOBACCOS

(Crop Nos. 54 to 57)

C. C. Litton, G. B. Collins, P. D. Legg, G. A. Everett, and J. B. Masterson

'MOSAIC RESISTANT LITTLE CRITTENDEN' (Reg. No. 54), 'MOSAIC RESISTANT BLACK MAMMOTH' (Reg. No. 55), 'MOSAIC RESISTANT MADOLE' (Reg. No. 56), and 'MOSAIC RESISTANT LITTLE WOOD' (Reg. No. 57) tobacco (Nicotiana tabacum L.) cultivars were developed cooperatively by the Plant Science Research Division, Agricultural Research Service, U. S. Department of Agriculture and the Kentucky Agricultural Experiment Station. These cultivars were developed for use in controlling tobacco mosaic virus (TMV) in dark tobacco production and are used as air-cured (type 36) or fire-cured (types 22 and 23) cultivars. The resistant cultivars were obtained by transferring TMV resistance into four dark tobacco cultivars. A dark fired breeding line with TMV resistance derived from Nicotiana glutinosa L. was the source of resistance and the non-current parent in each of the cultivars.

Mosaic Resistant Little Crittenden (Reg. No. 54) was developed from a cross between 'Little Crittenden' and the mosaic resistant breeding line. Little Crittenden was the recurrent parent and the new cultivar was released in the BC, S~ generation when released. Mosaic Resistant Little Crittenden produces long, broad, droopy leaves of fine, stiff texture suited to gray loams or clay soils. It produces a light body that is suitable for export (cutting) tobacco. This is primarily fire-cured (type 22) and produces good-quality tobacco on some soil types, mostly in the eastern fire-cured tobacco district. In tests over a 3-year period and under disease-free conditions the resistant cultivar bloomed 3 days earlier and had yields and values per 45.5 kg under air-cured conditions. When fire-cured, the cultivar was superior to the mosaic resistant cultivar by an average of 257 kg and $484 per ha.

Mosaic Resistant Madole (Reg. no. 56) is a cross between the mosaic resistant breeding line MADOLE was the recurrent parent and MADOLE was in the BC, S~ generation when released. Mosaic Resistant Madole produces long, broad, droopy leaves of fine, stiff texture suited to gray loams or clay soils. It produces a light body that is suitable for export (cutting) tobacco. This is primarily fire-cured (type 22) and produces good-quality tobacco on some soil types, mostly in the eastern fire-cured tobacco district. In tests over a 3-year period and under disease-free conditions the resistant cultivar bloomed 3 days earlier and had yields and values per 45.5 kg under air-cured conditions. When fire-cured, the cultivar was superior to the mosaic resistant cultivar by an average of 312 kg and $365 per ha.

The four new cultivars were released in 1972 for increase. Breeder seed will be maintained at the Kentucky Agricultural Experiment Station, Lexington, Kentucky 40506.

REGISTRATION OF YAMHILL WHEAT

(Crop No. 511)

Warren E. Kronstad, Wilson H. Foote, and Manley

'YAMHILL' (Triticum aestivum L. em Thell) is a soft white winter wheat developed from the cross 'Alba' ('Redmond') made in 1960 at the Oregon Agricultural Experiment Station. The original selection was from an F~ row with additional selections made from F~ head rows. 'Alba' ('Redmond') made in 1960 at the Oregon Agricultural Experiment Station. 'Alba' ('Redmond') is a fire-cured, the parental cultivar was superior to the mosaic resistant cultivar by an average of 365 kg and $345 per ha.

Mosaic Resistant Black Mammoth (Reg. No. 57) is a cross between 'Black Mammoth' and the mosaic resistant breeding line. Black Mammoth was used as the recurrent parent, the new cultivar was in the BC, S~ generation when released. Mosaic Resistant Black Mammoth produces long, broad, droopy leaves. The leaf surface is very smooth and shiny and has nerved veins at the base. This cultivar has a medium size stalk, larger growing cultivar than the other mosaic resistant cultivars. It is grown primarily in the eastern fire-cured district for domestic (snuff, chewing, filler, and pipe) use. It is also an excellent air-cured (type 23) cultivar. In tests over a 3-year period and under disease-free conditions the new cultivar bloomed 3 days earlier than the recurrent parent and had slightly reduced yields and values per 45.5 kg (cwt) when fire-cured. When fire-cured, the parental cultivar was superior to the mosaic resistant cultivar by an average of 365 kg and $384 per ha.

Mosaic Resistant Little Wood (Reg. No. 57) is a cross between 'Little Wood' and the mosaic resistant breeding line. Little Wood was the recurrent parent and Little Wood was in the BC, S~ generation when released. Mosaic Resistant Little Wood produces a heavy-bodied tobacco best suited for domestic consumption. It is grown primarily as fire-cured (types 22 and 23) cultivar for domestic (snuff, chewing, filler, and pipe) use. It is also an excellent air-cured (type 36) cultivar. In tests over a 3-year period and under disease-free conditions the new cultivar bloomed 3 days earlier than the recurrent parent and had slightly reduced yields and values per 45.5 kg (cwt) when fire-cured. When fire-cured, the parental cultivar was superior to the mosaic resistant cultivar by an average of 312 kg and $365 per ha.

The four new cultivars were released in 1972 for increase. Breeder seed will be maintained at the Kentucky Agricultural Experiment Station, Lexington, Kentucky 40506.