but dry conditions at maturity. The variety has a high black shank resistance with moderate resistance to fusarium wilt and a fair resistance to black root rot.

Maryland 609 has been analysed for nicotine, nor-nicotine, total alkaloid, smoke, taste, and levels of aroma. The nicotine content is slightly higher than Catterton, 'Wilson', or 'Moore' varieties, but the ratio of secondary amine to total amine was normal. Chemically, Maryland 609 is an acceptable cigarette quality tobacco.

The Maryland 699, a black shank resistant variety, cures down to a thin crop. It has a dull, light textured leaf usually of a tan to a light cherry red color. Maryland 699 produces a high percentage of bright cherry crop leaves and Swiss grades. It has a good root system and responds well to normal fertilizer practices. It produces well on light or heavy soils and grows on a wide range of soil types.

Maryland 609 has a spreading leaf characteristic, between Catterton and Maryland 59 in height, mature leaf has crepe-like (not smooth) surface with a slightly crinkled margin. The lateral veins are acute with respect to midrib. The leaf is a medium broadleaf, more rounded than Maryland 59 and ends abruptly in a point.

Maryland 59 Tobacco

(Registration No. 28)

Omar D. Morgan

'MARYLAND 59 originated from a cross of 'Maryland Robinson' X 'Florida 301' (a black shank resistant Florida cigar wrapper tobacco). The cross was made in Tobacco Investigations, U. S. Department of Agriculture, Beltsville, Md., in 1949. The F₁ and F₂ selfed generations were tested for resistance to black shank at the Cooperative U. S. Department of Agriculture, Tennessee Agricultural Experiment Station, Greeneville, Tenn. Twenty resistant selections were sent to O. D. Morgan for further testing and selecting under Maryland conditions. Maryland 59 segregated out of a single selection (IA4R) that had high resistance and good quality. Previous to a report in 1965, the variety was known as 'Morgan 95'. With successive selfings and selections, a variety was developed with high resistance to black shank and desirable characteristics of type 32 tobacco. It has fewer (19-21) but larger leaves than the Maryland 'Catterton' variety. It has a higher percentage of bright leaf tobacco and exceeds other Maryland varieties in price per hundred pounds. The production in pounds per acre is slightly under Maryland Catterton, the most widely grown variety. Total dollar returns per acre are more than other Maryland varieties. It grows off faster in the plant bed. It flowers 8-10 days later than Catterton; it is light green in color late in season and may cause confusion in the determination of ripeness. It should mature 10-14 days longer than other Maryland varieties before harvesting and sucker development is slower than on other Maryland varieties. It is slow to wilt and holds its vigor longer after they are cut. Some breakage may occur due to brittleness of midrib during harvest and subsequent handling.

Maryland 59 is slow to fire up under hot dry conditions at maturity. The variety has a high black shank resistance with moderate resistance to fusarium wilt and a fair resistance to black root rot.

Maryland 59 has been analysed for nicotine, non-nicotine, total alkaloid, smoke, taste, and levels of aroma. The nicotine content is slightly higher than Catterton, 'Wilson', or 'Moore' varieties, but the ratio of secondary amine to total amine was normal. Chemically, Maryland 59 is an acceptable cigarette quality tobacco.

The Maryland 59, black shank resistant variety, cures down to a thin crop. It has a dull, light textured leaf usually of a tan to a light cherry red color. Maryland 59 produces a high percentage of bright crop leaves and Swiss grades. It has a good root system and responds well to normal fertilizer practices. It produces well on light or heavy soils and grows on a wide range of soil types.

Maryland 59 is a stand-up variety. It is taller than most Maryland grown varieties. The leaf is smooth, margins are curled downward and have a wavy edge at maturity. The lateral leaf veins are acute with respect to midrib. The leaf is a medium broadleaf, tapering to a point giving it a boat-shaped appearance.

Virginia 115 Tobacco

(Registration No. 29)

J. L. LaPrade

In type, 'Va. 115' resembles 'Hicks Broadleaf', its nonresistant parent. The plants are moderately tall with leaves of medium length. Leaves are spaced slightly closer than on Hicks, with two more leaves per plant. The leaf surface is not as smooth as Hicks. Puckering between the veins is pronounced at maturity and contributes to its crepe-like appearance. Breakage resistance is good in the field and in handling at the barn. The leaf cures to a rich lemon or light orange color. Texture is fairly grainy, with a minimum amount of slickness when harvested fully ripe.

Table 1. Losses from black shank in Va. 115 and other selected tobacco varieties in 1964 and performance in regional tests (Georgia, South Carolina, North Carolina, and Virginia) in 1963 and 1964.

<table>
<thead>
<tr>
<th>Variety</th>
<th>% black shank losses and rating</th>
<th>Yield, lb/A</th>
<th>Value index</th>
<th>Nicotine %</th>
<th>Sol. Nitro-</th>
<th>% of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Va. 115</td>
<td>0</td>
<td>16</td>
<td>High</td>
<td>2306</td>
<td>1278</td>
<td>57.69</td>
</tr>
<tr>
<td>Speight G-36</td>
<td>0</td>
<td>9</td>
<td>High</td>
<td>2336</td>
<td>1358</td>
<td>57.88</td>
</tr>
<tr>
<td>Hume Wheat</td>
<td>0</td>
<td>9</td>
<td>High</td>
<td>2323</td>
<td>1392</td>
<td>58.15</td>
</tr>
<tr>
<td>Coker 298</td>
<td>0</td>
<td>9</td>
<td>High</td>
<td>2306</td>
<td>1228</td>
<td>60.92</td>
</tr>
<tr>
<td>Hume - Check</td>
<td>80</td>
<td>9</td>
<td>None</td>
<td>2204</td>
<td>1228</td>
<td>60.92</td>
</tr>
<tr>
<td>Hume Wheat - Check</td>
<td>298</td>
<td>9</td>
<td>None</td>
<td>2204</td>
<td>1228</td>
<td>60.92</td>
</tr>
</tbody>
</table>
| *Disease resistance ratings from tests conducted in North and South Carolina, Georgia, and Virginia on uniform entries. Representatives from the 4 states met in October and examined the data and agreed on the resistance ratings shown.
| *Price index based on prices paid for various grades per 100 lb. of tobacco for 1963 and 1964 compiled through October 1964. | *Index symbol.

'Va. 115 does not bloom prematurely under adverse weather conditions, and has a low number of ground and leaf axil suckers. The stalk is medium in size, with a good root system affording normal resistance to wind and storms. It responds well to fertilization practices used with Hicks Broadleaf and other Hicks Broadleaf-type varieties on different soils.

1 Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Dec. 4, 1965.

2 Associate Professor of Plant Pathology, Virginia Polytechnic Institute, Tobacco Disease Research Station, Chatham, Virginia.

Hume Wheat

(Reg. No. 448)

D. G. Wells, G. W. Buchenau, John A. Johnson, and Karl F. Finney

'Hume'. *Triticum aestivum* L. em. Thell., C. I. 15526 is a hard red winter wheat that originated in the second cycle of a program of recurrent selection for hardiness, earliness, and resistance to black root rot.

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2 Associate Professor of Plant Pathology, Virginia Polytechnic Institute, Tobacco Disease Research Station, Chatham, Virginia.