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## AGRONOMY NOTES

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## A NEW BLACK SHANK RESISTANT HYBRID

December 1963

Seed of a new black shank resistant burley hybrid will be available to growers in 1964. This hybrid is especially for farmers who cannot rotate their tobacco land and, thus, are forced to set their crop in a black shank infested field. The hybrid is a cross between two black shank resistant varieties, MS L8 and Burley 37. The female parent, MS L8, carries black shank resistance from a wild relative of tobacco.

This new hybrid takes advantage of the high resistance in L8 from the wild species <u>N</u>. <u>longiflora</u> and the moderate resistance in Burley 37 from <u>N</u>. <u>tabacum</u>. The L8 resistance will give complete protection on about 99 percent of the farms. The <u>N</u>. <u>tabacum</u> resistance in Burley 37 will give moderate resistance on all farms, including those farms where black shank will attack the L8 variety. Since L8 has dominant resistance to the black shank fungus and Burley 37 has multiple resistance, the hybrid MS L8 x Burley 37 will have both dominant and multiple resistance and, therefore, will have higher resistance to the black shank fungus than either L8 or Burley 37 alone.

It should be remembered that this hybrid is only <u>resistant</u> to black shank and is <u>not immune</u>. So an occasional plant could still die from black shank in a field where the organism is allowed to build up through continuous tobacco culture. If black shank is present in a field, it is always best to rotate the tobacco rather than depend on a resistant variety. Also, this hybrid is not expected to produce yields equal to some of the standard varieties.

> J. H. Smiley Ira E. Massie



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