MARYLAND COOPERATIVE EXTENSION
UNIVERSITY OF MARYLAND
COLLEGE PARK•EASTERN SHORE

Fact Sheet

Fact Sheet 385

Maryland 341 Tobacco Variety

Maryland 341 tobacco variety was developed jointly by H. A. Skoog of the U.S. Department of Agriculture and M. K. Aycock, Jr. of The University of Maryland Agricultural Experiment Station (UMAES). Md. 341 originated from a series of crosses of Md. 10 and Md. 64 breeding lines. The development of this variety started in 1963. The performance of Md. 341 in the field has been good, and quality and flavor of the cured leaf has been found satisfactory by both foreign and domestic users of Maryland tobacco.

Variety Description

During the early part of the growing season, Md. 341 is characterized by rapid and uniform growth. Field appearance of Md. 341 is similar to that of Md. 201. However, the leaves of Md. 341 are more upright than those of Md. 201 and, at maturity, are long and medium in width with a pointed tip. Normally, Md. 341 is dark green throughout the growing season, with a little yellowing at maturity.

A unique characteristic of Md. 341 is that occasionally plants have red flowers. This does not seem to be associated with any other plant characteristic. The genetics of the red flowers is being investigated.

Table 1 shows some of the characteristics of Md. 341 compared with other tobacco varieties. Md. 341 is similar in height to the other varieties and has the highest number of leaves per plant. It flowers about midrange between Md. 10, the earliest, and Md. 201, the latest. Wind resistance of Md. 341 is much better than the resistance of Md. 609 and similar to Md. 10 and Md. 201.

Table 1. Plant growth characteristics of Md. 341 compared with other Maryland Tobacco Varieties

Variety	Plant Height (inches)	Leaves Per Plant	Days to Flower	Wind Resistance
Md. 341	29.4	20.8	56.7	2.8[1]
Md. 10	31.5	20.2	54.3	2.7
Md. 609	30.4	18.2	57.9	4.5
Md. 872	29.8	18.4	55.5	3.2
Md. 201	29.7	20.3	58.8	2.7

[1]A score of 1 is all plants erect and 5, all plants blown down.

Variety Performance

Table 2 shows a comparison between the yield and value of Md. 341 and other varieties. Md. 341 yields in the range with Md. 872 and Md. 201, which is slightly higher than Md. 609 and Md. lo. The average price per pound has been good, resulting in a high gross dollar return.

Table 2. Yield and value of Md. 341 compared with other Maryland tobacco varieties over 4 years at three locations

Variety	Yield (lb/acre)	¢/lb[1]	$/acre
Md. 341	1881	149	2793
Md. 10	1712	148	2540
Md. 609	1692	150	2541
Md. 872	1868	150	2810
Md. 201	1867	149	2779

[1]Adjusted from original price level. From UMAES MP 971, Maryland 341.A new Variety of Maryland Tobacco.

Disease Resistance

Table 3 shows the disease resistance of the released Maryland tobacco varieties. Md. 341 has high resistance to tobacco mosaic virus and wildfire. It has a medium level of resistance to tobacco etch virus, but is susceptible to black shank. Md. 341 has ample fusarium wilt resistance for Maryland conditions, as do the other released Maryland tobacco varieties.

Table 3. Disease resistance of Md. 341 and four previously released Maryland Tobacco Varieties[1]

Variety	Tobacco Mosaic Virus	Wildfire	Black Shank	Etch Virus
Md. 341	High	High	Susc.	Medium
Md. 10	High	Susc.	Susc.	Medium
Md. 609	Susc.	Susc.	High	Susc.
Md. 872	High	High	Susc.	Medium
Md. 201	High	High	Susc.	High

[1]Levels of resistance are classified as high, medium, and susceptible.

Management

General management practices for Md. 341 appear similar to that of other varieties. Md. 341 starts growing quickly after transplanting, in an upright manner. Plant growth continues rapidly under adequate moisture conditions. Md. 341 is considered medium range in maturity. However, it does not tend to "shoot flower" thus making it difficult to top at times. Md. 341 normally maintains a green color into the ripening period with little yellowing at maturity.

Under severe drought conditions Md. 341 appears to be more susceptible to drought spot than other varieties. Drought spot appears as numerous large reddish brown spots surrounded by a yellowish border on the lower and middle leaves. This condition appears to be more severe after topping. Drought spot coupled with slow ripening of the top leaves in dry weather can make determining when to harvest

difficult.

Md. 341 appears to wilt quickly when cut. Stalk size can be large under good growing conditions. Hang sticks wide enough apart in the barn to permit good air movement. Watch large sized tobacco carefully for houseburn during curing.

The cured leaf of Md. 341 normally has a good reddish color, but under adverse growing or curing conditions yellowish colors can develop. Also, the yellowish colors are common when Md. 341 is grown on deep sandy soils.

Maryland 341 Tobacco Variety

by

M.K. Aycock, Jr.
professor
Department of Agronomy

C.G. McKee
professor
Department of Agronomy

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, University of Maryland, College Park, and local governments, Thomas A. Fretz, Director of Maryland Cooperative Extension, University of Maryland.

The University of Maryland is equal opportunity. The University's policies, programs, and activities are in conformance with pertinent Federal and State laws and regulations on nondiscrimination regarding race, color, religion, age, national origin, gender, sexual orientation, marital or parental status, or disability. Inquiries regarding compliance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments; Section 504 of the Rehabilitation Act of 1973; and the Americans With Disabilities Act of 1990; or related legal requirements should be directed to the Director of Human Resources Management, Office of the Dean, College of Agriculture and Natural Resources, Symons Hall, College Park, MD 20742.

1984