

2007 Dark Tobacco Seed Source X Variety Trial

Andy Bailey

Seed lots of Narrowleaf Madole, KY 171, and KT D4LC were obtained from each of the three seed companies marketing dark tobacco seed in Kentucky and Tennessee (Rickard, Workman, and Newton). These varieties represent over 60% of the dark tobacco grown in 2006. All seed sources were screened for low nornicotine conversion. Media source used was Premier Pro-Mix w/ Biofungicide. Standard Speedling (288 cell) float trays were filled with media using a standard gravity-fed media box. Seed from each source and variety were sown into three trays (3 replications) using an ABC Quick Seeder™. All seed were sown on March 16, 2007 and trays were completely randomized and floated on a standard float bed in a typical poly-covered greenhouse at UKREC in Princeton, KY. Cal Mag (15-5-15) water-soluble fertilizer was applied to the float bed water on March 30, 2006 to achieve a nitrogen level of 100 ppm N. Temperatures were maintained in a range of 55 to 90 degrees F. Percent germination and percentage of plants exhibiting symptoms of spiral rooting were measured at 14 and 21 days after seeding (March 30 and April 6). Data analysis indicated that germination and spiral rooting were affected more by variety than by seed source in 2007. For further information, please contact Andy Bailey at: abailey@uky.edu

Table 1. Effect of seed source and variety on germination and spiral rooting at 14 days after seeding*.

Seed Source	Variety	% Germination	% Spiral Rooting
Rickard	Narrowleaf Madole	90.9	10.3
Rickard	KY 171	96.0	0.6
Rickard	KT D4LC	93.3	2.8
Workman	Narrowleaf Madole	92.2	4.6
Workman	KY 171	93.4	1.4
Workman	KT D4LC	94.3	2.4
Newton	Narrowleaf Madole	93.9	8.7
Newton	KY 171	95.9	2.5
Newton	KT D4LC	92.0	3.8
LSD _{0.05}		2.6	3.5

Table 2. Effect of seed source and variety on spiral rooting at 21 days after seeding*.

Seed Source	Variety	% Spiral Rooting
Rickard	Narrowleaf Madole	6.4
Rickard	KY 171	0.5
Rickard	KT D4LC	1.8
Workman	Narrowleaf Madole	4.2
Workman	KY 171	0.7
Workman	KT D4LC	1.4
Newton	Narrowleaf Madole	5.7
Newton	KY 171	1.5
Newton	KT D4LC	1.1
LSD_{0.05}		2.6

*In all tables, values within a column that differ by the LSD value shown for that column are significantly different at the 95% confidence level.