

## 2006 Dark Tobacco Seed Source X Variety Trial

By 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 2005. All seed sources were screened for low nicotine conversion. Media source used was Premier Pro Mix TA. 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 22, 2006 and trays were completely randomized and floated on a standard float bed in a typical poly-covered greenhouse. A nitrogen level of 100 ppm was achieved with 15-5-15 water-soluble fertilizer applied to the float bed water on April 3, 2006. Temperatures were maintained in a range of 60 to 88 °F. Percent germination and spiral rooting were measured at 14 and 21 days after seeding (April 5 and April 12). Germination and spiral rooting was affected by seed source and variety at 14 and 21 days after seeding. For more information contact the author at: [abailey@uky.edu](mailto:abailey@uky.edu)

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

Variety	Seed Source			LSD <sub>0.05</sub> (seed source)
	Rickard	Workman	Newton	
	-----% Germination -----			
<b>Narrowleaf Madole</b>	91.0	91.8	89.9	6.3
<b>KY 171</b>	91.9	89.1	96.2	6.4
<b>KT D4LC</b>	94.5	94.6	92.5	6.4
LSD <sub>0.05</sub> (variety)	5.3	4.7	6.9	

**Table 2.** Effect of seed source and variety on spiral rooting at 14 days after seeding\*.

Variety	Seed Source			LSD <sub>0.05</sub> (seed source)
	Rickard	Workman	Newton	
	----- % Spiral Rooting -----			
<b>Narrowleaf Madole</b>	12.7	8.9	5.9	6.2
<b>KY 171</b>	2.1	2.4	3.1	4.1
<b>KT D4LC</b>	6.8	6.3	5.9	4.1
LSD <sub>0.05</sub> (variety)	4.3	4.1	6.2	

**Table 3.** Effect of seed source and variety on germination at 21 days after seeding\*.

Variety	Seed Source			LSD <sub>0.05</sub> (seed source)
	Rickard	Workman	Newton	
	----- % Germination ----- -----			
<b>Narrowleaf Madole</b>	92.0	91.8	91.8	1.3
<b>KY 171</b>	92.0	89.1	97.0	4.6
<b>KT D4LC</b>	94.6	95.1	92.5	6.8
LSD <sub>0.05</sub> (variety)	4.5	4.6	4.9	

**Table 4.** Effect of seed source and variety on spiral rooting at 21 days after seeding\*.

Variety	Seed Source			LSD <sub>0.05</sub> (seed source)
	Rickard	Workman	Newton	
	----- % Spiral Rooting ----- -----			
<b>Narrowleaf Madole</b>	11.2	5.4	4.9	3.1
<b>KY 171</b>	1.0	1.4	2.0	0.9
<b>KT D4LC</b>	4.3	4.4	2.6	3.4
LSD <sub>0.05</sub> (variety)	2.0	2.9	2.9	

\*In all tables, values within a column (within a seed source) or within a row (within a variety) that differ by the LSD value shown for that column or row are significantly different at the 95% confidence level.