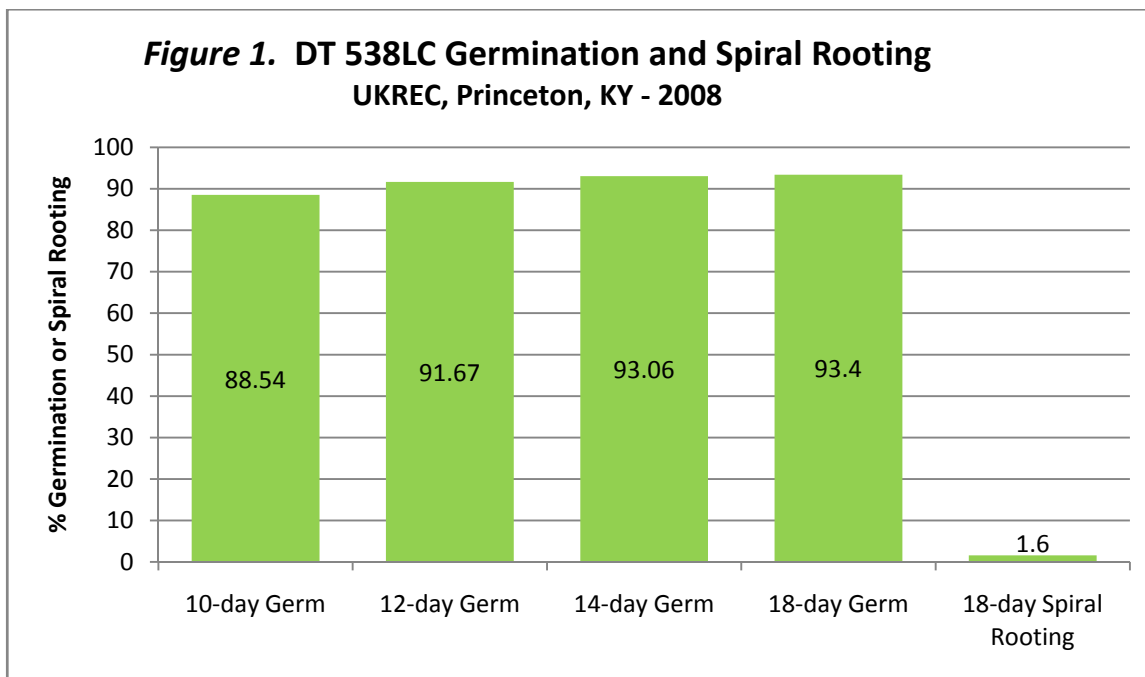


2008 Dark Tobacco Float Bed Report

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Questions are asked by growers annually about the germination and spiral rooting potential of popular dark tobacco varieties, particularly Rickard's Narrowleaf Madole LC. In addition, DT 538LC, a relatively new dark variety from Newton Seed, had a problem with poor germination in pelleted seedlots in 2007 and so was only available as raw seed. New pelleted seedlots of Rickard's Narrowleaf Madole LC, KT D4LC, KY 171, and Newton's DT 538LC were evaluated for germination and spiral rooting in 2008. These experiments were conducted in a standard poly-covered greenhouse at the University of Kentucky Research & Education Center in Princeton, KY. Seeding was done on March 17 with an ABC Quick Seeder using 288-cell Speedling float trays and Carolina Choice growing media. Temperatures in the greenhouse were maintained in the range of 62 F to 88 F. At 7 days after seeding, the float bed was fertilized with Cal-Mag 15-5-15 water soluble fertilizer to a level of 100 ppm N. All other transplant production practices were standard. Germination and spiral rooting data were collected from 3 replications (3 trays) of each variety at various intervals after seeding.



Cool, cloudy conditions that occurred after seeding resulted in slight delays in germination of all varieties. DT 538LC germination from 2008 pelleted seed was acceptable, and reached 93.4% at 18 days after seeding (Fig. 1). Percent spiral rooting of DT 538LC was very low at only 1.6%. Some of the raw seedlings of DT 538LC made in 2007 also showed approximately 30% of the plants having elongated leaves, usually on the first 2 to 4 true leaves and appearing around 4 weeks after seeding. The elongated appearance of these leaves persisted until transplanting but did not have any effect on the health and viability of the plant and was not apparent by 2 weeks after transplanting. This elongated leaf characteristic is also appearing consistently in seedlings of DT 538LC pelleted seed in 2008 (see Fig. 2). Although strange in appearance, this characteristic should not have any effects on DT 538LC performance.

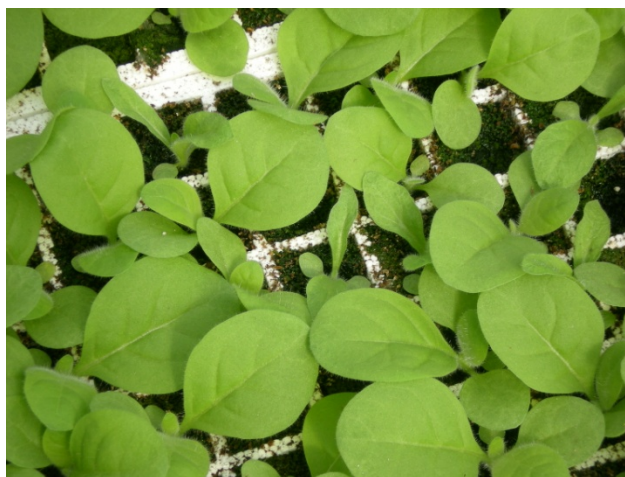
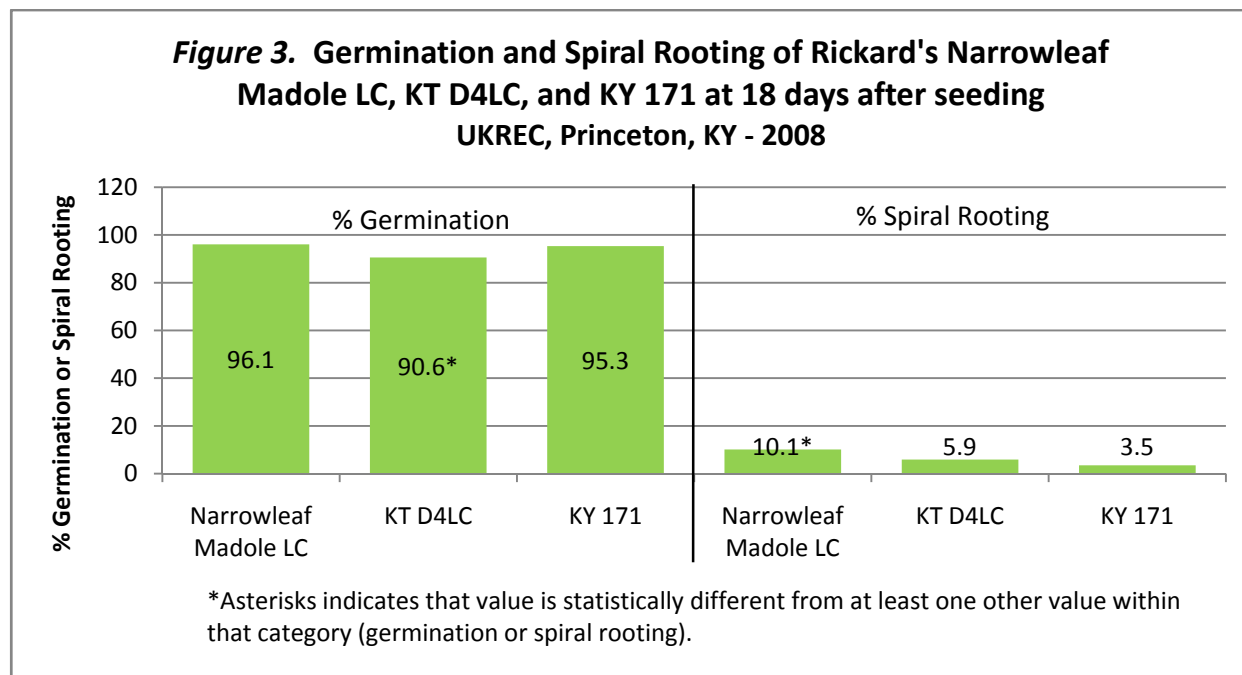


Figure 2. DT 538LC leaf elongation at 4 weeks after seeding.



Although Rickard's Narrowleaf Madole LC, KT D4LC, and KY 171 all had over 90% germination at 18 days, germination of KT D4LC (90.6%) was lower than that of Narrowleaf Madole LC or KY 171 (Fig. 3). Rickard's Narrowleaf Madole LC also had the highest level of spiral rooting at 10.1%.