

Seed X Media Interaction Test 2003.

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Seed lots of TN 90 and 14 x L8 were obtained from each of the four tobacco seed companies active in Kentucky. This test included one lot of Rickard 14 x L8 pelleted with the new ProfiCote™ coating and one lot of Workman TN 90 pelleted with a “melt coat” coating. Float trays (288 cell) were filled with either Speedling Peat-Lite or Scotts with Coir soilless mix using a Berry automatic tray filler. Seed from each seed lot were sown with a vacuum seeder into four trays (replications) of each brand of media. The trays were randomized and floated in a common float bed in a typical poly covered greenhouse. Temperatures were maintained in the range of 68 to 78°F. Germination and spiral root counts were made 19 days after seeding. The data below show that spiral root is a complex problem involving both media and seed factors. If you have questions concerning this data please contact Bob Pearce at rpearce@uky.edu

Percent germination of tobacco seeds counted 19 days after seeding.

Seed Source/Variety	Speedling Peat-lite	Scotts with COIR	Source Avg.
Clays TN 90	95.4	95.7	95.6
Clays 14 x L8	93.1	93.8	93.5
Newton TN 90	96.4	95.5	95.9
Newton 14 x L8	91.1	91.5	91.3
Rickard TN 90	91.0	97.0	94.0
Rickard 14 x L8	92.4	92.2	92.3
Rickard 14 x L8 Proficote™	93.3	93.5	93.4
Workman TN 90	96.2	95.6	95.9
Workman TN 90 “Melt Coat”	96.1	96.0	96.1
Workman 14 x L8	89.9	91.1	90.5
Media Avg.	93.3	94.1	

* LSD 0.05 for treatment means = 1.9

Percent of germinated seedlings exhibiting symptoms of spiral root at 19 days after seeding.

Seed Source/Variety	Speedling Peat-lite	Scotts with COIR	Source Avg.
Clays TN 90	3.0*	15.8	9.4
Clays 14 x L8	8.9	28.6	18.8
Newton TN 90	0.8	10.8	5.8
Newton 14 x L8	4.5	31.2	17.9
Rickard TN 90	21.1	29.2	25.2
Rickard 14 x L8	20.9	30.1	25.5
Rickard 14 x L8 ProfiCote™	2.4	20.1	11.3
Workman TN 90	4.8	17.7	11.3
Workman TN 90 “Melt Coat”	2.9	21.0	12.0
Workman 14 x L8	5.9	21.7	13.8
Media Avg.	8.4	23.9	

LSD 0.05 for treatment means = 5.9

Percent useable plants at transplanting

Seed Source/Variety	Speedling Peat-lite	Scotts with COIR	Source Avg.
Clays TN 90	84.5	76.4	80.4
Clays 14 x L8	80.4	72.1	76.3
Newton TN 90	90.0	79.3	84.6
Newton 14 x L8	82.8	72.0	77.4
Rickard TN 90	73.7	73.5	73.6
Rickard 14 x L8	70.0	68.2	69.1
Rickard 14 x L8 Proficote™	86.8	71.5	79.2
Workman TN 90	89.3	73.5	81.4
Workman TN 90 “Melt Coat”	85.6	76.5	81.0
Workman 14 x L8	81.5	76.3	78.9
Media Avg.	81.4	73.0	

LSD 0.05 for treatment means = 6.7

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