

Tobacco Greenhouse Soiless Media Test 2006

Bob Pearce and Jack Zeleznik

Ten soiless media entries and two types of trays were tested in 2006. All media were used directly from the bag without adding any water. Two types of trays (288 cell) were filled mechanically with a Berry Seeder filler box. One tray was a standard size tray (26.25" long x 13.25" wide x 2.5" deep) from Speedling Inc the other was a "shallow" tray (26.25" long x 13.25" wide x 1.5" deep) from Beltwide Inc. Trays were seeded with Rickard TN90 pelleted tobacco seed and floated in a randomized block design in a common float bay. Temperature was maintained between 68 to 82°F during germination. Germination and spiral roots were counted 2 weeks after seeding. Questions? Contact Bob Pearce at rpearce@uky.edu.

Table 1. Germination rate of TN 90 burley tobacco seed on different brands of media.

Brand of Media	Kentucky Burley Molding Tray	Beltwide "Shallow" Tray	Media Avg.
All Peat	98.1	96.2	97.2
Burley Gold	96.5	96.8	96.7
Carolina Silver	97.3	97.2	97.3
Carolina Choice	98.0	96.3	97.2
Kentucky Paydirt	97.3	95.8	96.6
Metromix Ag-Lite	97.6	97.8	97.7
Southern States	97.5	96.0	96.7
Southern States w COIR	96.5	97.5	97.0
Speedling Fortified	98.2	96.3	97.2
Sunshine LT5	96.6	97.5	97.1
Tray Avg.	97.4	96.7	

No significant differences.

Table 2. Spiral root rate of Tn 90 burley tobacco seed on different brands of media.

Brand of Media	Kentucky Burley Molding Tray	Beltwide "Shallow" Tray	Media Avg.
All Peat	0.5	3.0	1.8
Burley Gold	1.9	2.5	2.2
Carolina Silver	2.8	3.9	3.4
Carolina Choice	1.0	1.9	1.5
Kentucky Paydirt	1.8	3.8	2.8
Metromix Ag-Lite	0.5	0.7	0.6
Southern States	2.5	4.1	3.3
Southern States w COIR	5.6	4.0	4.8
Speedling Fortified	0.7	1.4	1.1
Sunshine LT5	1.5	2.4	1.9
Tray Avg.	1.9	2.8	

No significant interaction LSD 0.05 for tray effect = 0.6, LSD 0.05 for media effect = 1.3.

Table 3. Useable plant percentage of TN 90 burley tobacco seed on different brands of media.

Brand of Media	Kentucky Burley Molding Tray	Beltwide "Shallow" Tray	Media Avg.
All Peat	90.4	89.3	89.8
Burley Gold	87.2	89.2	88.2
Carolina Silver	92.5	92.7	92.6
Carolina Choice	94.7	91.9	93.3
Kentucky Paydirt	91.7	89.0	90.4
Metromix Ag-Lite	94.2	94.2	94.2
Southern States	93.7	91.0	92.4
Southern States w COIR	87.0	89.1	88.1
Speedling Fortified	91.1	90.5	90.8
Sunshine LT5	91.3	92.7	92.0
Tray Avg.	91.4	91.0	

No significant interaction: Tray effect not significant: LSD 0.05 for media effect = 2.2

*PLANT & SOIL SCIENCES FACT SHEET TOB-1-07 replaces 2-06