

XXVI. SUSCEPTIBILITY OF VIRGINIA- AND RUNNER-TYPE PEANUTS TO SCLEROTINIA BLIGHT (TAREC Research farm)

A. PURPOSE: To assess disease and yield of cultivars in the absence of fungicide treatments

B. EXPERIMENTAL DESIGN:

1. Four randomized complete blocks separated by 10-ft alleys
2. Two, 20-ft rows per plot with 36 in. row spacing

C. CULTIVAR: V=virginia-type; R=runner-type

1. Perry (V)
2. VA 98R (V)
3. Gregory (V)
4. GA Hi/OL (V)
5. DP-1 (R)
6. Hull (R)
7. GA Green (R)
8. GA-02C (R)
9. GA-03L (R)
10. C99R (R)

D. ADDITIONAL INFORMATION:

1. Location: TAREC Research Farm, Hare Rd., Suffolk
2. Crop history: corn 2004, cotton 2003, peanut 2002
3. Planting date: 1 Jun 2005
4. Soil fertility report: (Dec 2004)

pH.....	6.9	K.....	53 ppm
Ca.....	317 ppm	Zn.....	0.7 ppm
Mg.....	43 ppm	Mn.....	3.5 ppm
P.....	34 ppm	Soil type.....	Kenansville loamy sand
5. Herbicide:
 - Pre-plant - Prowl 1 pt/A (31 Mar)
 - Dual II Magnum 1 pt + Strongarm 0.23 fl oz/A (27 Apr)
 - Pre-emergence - Dual II Magnum 1 pt + Strongarm 0.23 fl oz/A (1 Jun)
6. Cylindrocladium black rot control: Vapam 7.5 gal/A (19 Apr)
7. Insecticide: Temik 15G 7 lb/A in furrow (1 Jun)
 - Orthene 97S 6 oz/A (28 Jun)
 - Lorsban 15G 13 lb/A (22 Jul)
8. Acaricide: Danitol 6 fl oz/A (22 Aug)
9. Cercospora leaf spot control: Bravo WS 1.5 pt/A (18 Jul, 2 Aug, 22 Aug) according to leaf spot advisory program
10. Additional crop management:
 - a. Liquid boron 1 qt/A (31 Mar)
 - b. Landplaster: Peanut Maker 1500 lb/A (24 Jun)
 - c. Liquid Mn 1 qt/A (2 Aug)
 - d. Irrigation: ca. 1 in. (22 Jun, Aug, 31); ca. 0.75 in. (9 Aug, 1 Sep, 6 Sep)
 - e. Cultivation: 22 Jul
11. Harvest date: 1 Nov 2005

Table 92. Effect of cultivar on incidence of soilborne disease, yield and value of peanut.

Cultivar and type	Sclerotinia ¹			CBR/TSWV ² (Oct 21)	Yield ³ (lb/A)	Value ⁴ (\$/A)
	Sep 14	Oct 11	Oct 21			
Virginia type						
Perry.....	1.3 c	7.5 cd	12.0 d	5.5 ab	4887	865 ab
VA 98R	1.3 c	9.0 c	15.5 cd	6.5 a	4670	795 b
Gregory	0.8 c	11.3 c	18.8 bc	3.3 b-d	4887	575 c
GA Hi/OL	0.8 c	2.0 d	4.5 e	4.3 a-c	4735	876 ab
Runner type						
DP-1	2.3 bc	12.5 bc	22.5 ab	2.3 cd	3844	578 c
Hull	2.5 bc	17.0 ab	23.8 ab	2.3 cd	5039	837 ab
GA Green.....	4.5 a	18.3 a	24.8 ab	2.0 cd	5104	844 ab
GA-02C.....	0.8 c	10.5 c	18.5 bc	1.8 d	5017	885 ab
GA-03L.....	0.8 c	11.3 c	13.5 cd	3.3 b-d	4952	769 b
C99R.....	4.0 ab	19.5 a	28.3 a	2.0 cd	5538	958 a
LSD.....	1.8	5.6	6.4	2.3	n.s.	140

¹ Counts of infection centers in a total of 40 ft of row. An infection center was a point of active growth by *Sclerotinia minor* and included 6 in. on either side of that point.

² Number of symptomatic and/or dead plants per plot.

³ Yield of peanuts with 7% moisture. Peanuts were dug on 21 Oct and harvested on 1 Nov 2005.

⁴ Composite samples of pods were graded to determine market value at the loan rate, and multiplied by yield to estimate value at farm gate (\$/A).

Means followed by the same letter(s) in a column are not significantly different according to Fisher's Protected LSD test (P=0.05). "n.s." = not significant.

Table 93. Grade characteristics of peanut cultivars.

Cultivar and type	%*						Value** (¢/lb)
	FAN	ELK	SS	OK	DK	SMK	
Virginia type							
Perry.....	74	44	0.9	1.9	2.1	68	17.70
VA 98R	75	41	2.1	2.4	2.5	64.5	17.03
Gregory	88	50	1	1.7	7.5	60.5	11.77
GA Hi/OL	52	43	0.9	1.7	2	71.4	18.51
Runner type							
DP-1	0	0	0.8	12.4	0.6	57.9	15.04
Hull	0	0	0.8	5.9	0.5	66.3	16.61
GA Green.....	0	0	2.3	10.6	1	63.1	16.53
GA-02C.....	0	0	2.7	6.1	1	68.6	17.64
GA-03L.....	0	0	1.4	7.7	0.4	60.7	15.53
C99R.....	0	0	0.9	6.7	0.1	68.8	17.30

* FM=foreign material, LSK=loose shelled kernels, FAN=fancy sized in-shell, ELK=extra large kernels, SS=sound splits, OK=other kernels, DK=damaged kernels, SMK=sound mature kernels. Data are from a composite sample from four reps of each variety.

** Value (¢/lb) represents the market value of peanuts based on the loan rate.