

Evaluating Incidence of Tomato Spotted Wilt Virus in Peanut

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ABSTRACT

Research was conducted to evaluate the incidence of tomato spotted wilt virus (TSWV) in peanut. Peanut farmers have adjusted planting dates, row patterns, seed spacing, and now are looking to change variety selection to reduce incidence of TSWV. An on-farm irrigated variety trial was conducted. The experimental design was a randomized complete block. Each rep contained six varieties (GA Green, Georgia-O3L, AP-3, Georgia-O1R, Georgia-O2C, and C-99R). The six row plots were planted in a twin row configuration with three seed per each twin row with an average row length of 800 feet. Stand counts were taken after emergence. Data was collected by visually rating each rep for TSWV during the mid point of the growing season. Yield was determined on each rep, and each variety was graded. There was no statistically significant difference in the incidence of TSWV in the trial.



FARMER PRODUCTION PRACTICES

- ❑ Field was turned and Sonalan incorporated prior to bedding
- ❑ Herbicides: Valor applied at planting. Cadre applied 28 days after planting
- ❑ Insecticides: Thimet applied in-furrow
- ❑ Fungicides: 2 Bravo, 4 Folicur, 1 Bravo

METHODS

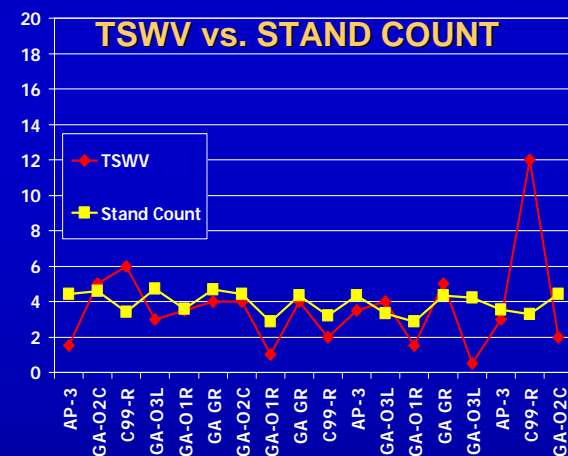
- ❑ The trial was planted in three reps on May 12, 2006
- ❑ Each rep contained 6 varieties in 6 twin row plots
- ❑ Planter was set to plant 3.04 seed/foot of row in each twin.
- ❑ Individual plot length was measured with Dell Axim X50 with attached GPS
- ❑ Stand counts were taken on June 1
- ❑ Plot evaluated for TSWV on July 26
- ❑ Standard maturing varieties: AP-3, GA Green and GAO3L were inverted on Sept. 26 and picked Sept. 29
- ❑ Later maturing varieties: GAO2C, GAO1R and C-99R were inverted on October 18 and picked on October 26
- ❑ Each Individual plot was weighed
- ❑ Each variety graded



COMBINED RESULTS

Variety	% TSWV	Stand/Ft	Yield/Ac	Grade
AP-3	2.67	4.09	4390	70
C-99R	6.67	3.24	4180	73
GA GR	4.44	4.00	4168	74
GA-O1R	2.00	3.11	4585	76
GA-O2C	3.67	4.47	4613	78
GA-O3L	2.50	4.00	4568	72

TSWV vs. STAND COUNT



CONCLUSIONS

- ❑ GAO1R had the least TSWV, but 2nd highest yield and grade
- ❑ GAO3L had the 2nd lowest TSWV, and 3rd highest yield, but 2nd lowest grade
- ❑ AP-3 had 3rd lowest TSWV, 4th highest yield but lowest grade
- ❑ GAO2C had 4th lowest TSWV, but highest yield and highest grade