

**Effect of In-Furrow and Foliar Insecticide Treatments on Tomato Spotted Wilt and Yield in New TSWV Resistant Cultivars and Breeding Lines**

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Several new peanut cultivars have excellent yield potential and good field resistance to Tomato spotted wilt. This improved resistance allows more flexibility with factors such as planting date and seeding rates used in integrated management of spotted wilt. Use of phorate (Thimet) insecticide has been a major factor in management of Tomato spotted wilt. Objectives of this project included determining the response of new peanut cultivars to Thimet and whether Thimet is needed on these cultivars.

Field experiments are conducted each year comparing new cultivars/breeding lines with and without in-furrow application of Thimet. In 2015, this trial included cultivars Georgia-06G, TifNV-High 0/L, Georgia-11J, Georgia-12Y, Georgia-13M, Georgia-14N, TUF Runner 297, TUF Runner 511m TUF Runner 727, Bailey, and Tifguard. The trial was planted in early May using a seeding rate of approximately 4.5 seed/ft of row. Pressure from spotted wilt was light. Incidence in nontreated TUF Runner 727 was 15.4 %. Final incidence in Georgia-12T, Georgia-13M, Georgia-14N, and TUF Runner 297 was 5.4% or lower. Across all cultivars, application of Thimet had little effect on incidence of TSW or yield. Across Thimet treatments, yields were 8040 lb/A for Georgia-12Y, which was significantly higher than yields of the next best yielding cultivars, TUF Runner 297 and Georgia-06G, respectively.

Trials were conducted to determine the effects of Velum Total as an in furrow treatment on thrips damage, incidence of tomato spotted wilt, and yield on TUF Runner 727 in a field without CBR or rootknot nematode infestation. Thrips control with the 18 fl oz/A rate of Velum Total was comparable to that of Thimet at 21 days after planting, but was not as good as Thimet at 30 days after planting. Admire Pro applied in furrow also provided good thrips control. Thrips control was not quite as good for any of the insecticides in the twin row (split rate) treatments, but incidence of spotted wilt was lower for twin rows than single rows for all insecticides. Neither Insecticide treatment nor row pattern had any significant effect on incidence of tomato spotted wilt or yield.