

EVALUATION OF SELECTED SEED AND SOIL APPLIED INSECTICIDES AGAINST THIRPS IN COTTON, 2007

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Selected insecticides were evaluated for control of thrips at the Macon Ridge Research Station (Franklin Parish) near Winnsboro, LA. Cotton seed (Stoneville 4646 B2RR) was planted on 9 Apr in a Gigger-Gilbert silt loam soil. Plots consisted of four rows (centered on 40 inches) and 50 ft in length. Treatments were arranged in a RCB design with five replications. Treatments were applied in the seed furrow either as treated seed (Aeris or Avicta) or granules (Temik 15G) with belt cone applicators mounted on the planter. Insecticide efficacy was measured by randomly selecting 10 plants per plot at 28 and 36 DAP and recording total number of adult and immature thrips using whole plant washing procedures. Plant damage due to thrips injury was visually evaluated (0 = no damage up to 5 = severe stunting, stacked internodes, reduced leaf area and terminal bud abortion) at 28 and 39 DAP. Plant stand was determined by counting the total number of plants on the center two rows of each plot. Plots were mechanically harvested with a spindle-type picker to determine seedcotton per acre. Data were subjected to ANOVA and means separated according to DMRT. Normal rainfall events were recorded from planting until harvest. Rainfall was not a factor intervening total efficacy against thrips on seedling cotton.

All insecticides significantly reduced the number of thrips compared to that in the non-treated plots at 28 and 36 DAP. Thrips injury ratings were significantly lower in all insecticide-treated plots compared to that in the non-treated plots at 28 and 39 DAP. Plant density and seedcotton yield were significantly higher in the insecticide-treated plots compared to that in the non-treated plots. The addition of Temik 15 to Aeris or Avicta-treated seed did not significantly improve thrips control or increase yields.

Table 1.

Treatment/ formulation	Rate/acre (mg AI/seed)	No. thrips/10 plants ^a		Thrips damage rating ^b		Plant density (no./ft)	Seedcotton yield (lb /acre)
		28 DAP ^c	36 DAP	28 DAP	39 DAP	44 DAP	
Aeris 48G	0.15	5.8b	4.4b	1.3b	1.5b	1.5b	2240.3a
Aeris + Temik 15G	0.15 + 0.75 ^a	3.4b	3.2b	1.3b	1.6b	1.5ab	2316.1a
Avicta Complete Pak 500G	0.15	7.2b	8.2b	1.5b	1.8b	1.6a	2399.7a
Avicta Complete Pak 500G + Temik 15G	0.15 + 0.75 ^a	4.0b	4.0b	1.6b	1.7b	1.6ab	2270.3a
Non-treated	-----	29.0a	25.0a	4.0a	3.9a	1.2c	1626.9b

Column means followed by the same letter are not significantly different (DMRT, $P = 0.05$).

^aAdult and immature thrips.

^bDamage rating scale: 0 = no damage, 5 = severe stunting, stacked internodes, reduced leaf area and terminal bud abortion.

^cDays after planting.