(E46)
EGGPLANT: Solanum melongena L. 'Classic'

Tomato pinworm (TPW); Keifeira lycopersicella (Walsingham)

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INSECTICIDAL CONTROL OF TOMATO PINWORM ON EGGPLANT, 1998: Tomato pinworm attacks potato and eggplant in addition to tomato but little information is available on the efficacy of insecticidal control of this pest on non-tomato Solanaceae. The present study was designed to fill that gap for 2 new insecticides. Four beds, 32 inches wide and 245 ft long, on 6-ft centers, were prepared by incorporating 800 lb/acre of 5-16-8, fumigating with 300 lb/acre of 67/33% mixture of methyl bromide/chloropicrin and covering with black polyethylene film. Additional fertilization to supply 130 lb N and 130 lb of K_2O for the growing season was applied through the drip irrigation system. Greenhouse-raised eggplant seedlings were planted 18 inches apart on 3 Apr. The three treatments and untreated check were assigned to 35 ft plots in each bed in a RCB design with four replications. Between each plot of eggplant was a 35 ft plot of untreated tomato to serve as an inoculum source. Foliar treatments were applied with a high clearance sprayer utilizing a hydraulic pump operating at 200 psi and delivering the spray through two drop booms equipped with 2 yellow hollow cone Albuz®7 nozzles each for a rate of 44 gpa on 4 Jun and 12 Jun. An additional nozzle was added to each boom for a total of 66 gpa for the third application on 19 Jun. A mean of 0.4 live larva per 3 leaves was recorded in a pre-treatment count of 10 plants per replication on 3 Jun. Live larvae were counted in 3 leaves/plant from 12 plants/plot for 3 weekly evaluations. Two wing-type sticky traps baited with TPW pheromone (Scentry), trapped 18, 25, 28, 36, and 21 total moths/night when collected on 2, 5, 10, 15, 19, and 24 Jun respectively. Data were analyzed with GLM and means separated with LSD.

Fewer TPW larvae were seen from all treatments compared with the control on all dates with no differences between foliar treatments on 11 and 24 Jun. On 17 Jun, fewest larvae were seen on plants treated with SpinTor. A significant rate response was observed with S-1812. Over all dates, fewest larvae were seen on plants treated with SpinTor but not significantly less than the high rate of S-1812.

Treatment/ formulation	Rate lb/acre	No. TPW larvae/3 leaves			
		11 Jun	17 Jun	24 Jun	All Dates
S-1812 2SC	0.075	0.33b	1.56b	0.25b	0.72b
S-1812 2SC	0.100	0.19b	0.77c	0.08b	0.34bc
SpinTor 2SC	0.100	0.08b	0.21d	0.04b	0.11c
Untreated check		1.06a	3.69a	1.40a	2.05a

Means in a column followed by the same letter are not significantly different (LSD, $P < 0.05$).