Chemical Control/New Products

SUCCESS FOR CONTROL OF PEACH TWIG BORER IN PEACHES
Michael Reding & Diane Alston

Utah State University, Department of Biology, 5305 Old Main Hill, Logan, UT 84322-5305

Keywords: Peach cultivar 'Suncrest', Success (spinosad), *Anarsia lineatella* (peach twig borer).

Objective. To evaluate the efficacy of Success (spinosad; Dow AgroSciences), for control of peach twig borer (*A. lineatella*) in peach as compared to an industry standard insecticide program using Thiodan (endosulfan; FMC) and Guthion (azinphosmethyl; Bayer). Success was registered on stone fruits at the time of this trial.

METHODS

This trial was conducted in a 10-year-old, 1 acre block of peaches ('Suncrest') at the Utah State University research farm in Kaysville, UT. A delayed-dormant (calyx-green to first pink) treatment of Superior oil + Thiodan 3EC at 0.67 qt/acre was applied to the entire orchard on 6 April 2000 for control of early season peach twig borer larvae. This was a large block trial with replications 3 rows wide and 5 trees long. Experimental design was randomized complete block with 3 treatments and 4 replications. Insecticides were applied by airblast sprayer at 70-80 gallons/acre.

Treatments: *1st cover applied 400DD after biofix, 2nd cover applied 1460DD after biofix.*
1). Success (spinosad; 22.8% ai; Dow AgroSci.) @ 6 fl oz/acre - applied on 12 June and 27 July
2). Thiodan 50 WP (endosulfan; 50% ai; FMC) @ 4 lb/acre – applied on 12 June and Guthion 50WP (azinphosmethyl; 50% ai; Bayer) @ 2 lb/acre – applied on 27 July
3). Untreated Check

Upon maturity, 40 fruit were sampled from 2 center trees per plot (320 fruit/treatment). Each fruit was cut open to determine if a larva was present

RESULTS

Both the Success and Thiodan-Guthion treatments provided excellent control of peach twig borer and had significantly lower levels of damage than the untreated trees (Table 1).

Table 1. Percentage fruit injury from peach twig borer at harvest on 23 August 2000.

Treatment	Mean % wormy fruit*	Std dev+	# fruit sampled
Success	0.63 b	1.16	320
Thiodan/Guthion	0.00 b	0.00	320
Untreated	9.06 a	8.86	320
P>F	0.006		

*Means followed by the same letter within a column are not significantly different (P<0.05) using Tukey's studentized range test.
+Std dev=standard deviation.