

Section VII
Foliage & Seed Insects

CONTROL OF ARMYWORMS IN PROCESSING TOMATOES

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The purpose of this trial was to evaluate new insecticides for control of various armyworms in processing tomatoes. Fifteen treatments were replicated four times in a randomized, complete block design. Plots were 5' (1 row) wide by 100' long. Materials were mixed in 50 gallons of water per acre and applied with a backpack CO₂ powered handgun. The handgun was equipped with 3 nozzles in order to cover the 5' bed. The center nozzle was an 8002VS and the outer 2 nozzles were 11002VS. The pressure was 35 psi.

The applications were made on July. 29, Aug. 11, Aug. 25, and Sep. 8. Vines were evaluated on Aug. 4, Aug. 18, Sep. 1, and Sep. 15. Ten feet (that's a lot of tomatoes) of vines was cut and the fruit was shaken off. Fruit was inspected for worm damage and presence of worms. Number of fruit per plot began at 300 and ended at 900. On Aug. 11 and Sep.8 laboratory raised worms were added to native field populations. In the first evaluation all of the worms found were beet armyworms. By the last evaluation 18% of the worms found were tomato fruitworms. All treatments reduced armyworm populations below the untreated control. Avaunt and S-1812 provided the best worm control. Lannate + Asana was not as effective as most experimental treatments. The results from this study should be valid for situations where field conditions permit the use of properly calibrated ground equipment. Some of the test materials may not perform as well with aerial applications.



Tomato Insecticide Trial-1999-Farmington, CA						
Treatment	Formulation	Rate	WDF 8/4	WDF 8/18	WDF 9/1	WDF 9/15
AC xxxx EC	1.6 lb./gal.	0.10	1.3 ab	12.8 c	21.8 cd	25.8 d
AC xxxx EC	1.6 lb./gal.	0.175	1.5 ab	4.8 abc	7.0 abc	11.0 abc
AC xxxx SC	1.6 lb./gal.	0.10	2.0 ab	2.0 ab	0.5 a	6.8 abc
AC xxxx SC	1.6 lb./gal.	0.175	3.3 ab	2.0 ab	1.8 ab	6.5abc
S-1812	35 WP	0.1	2.8 ab	2.8 abc	3.5 ab	3.8 ab
S-1812	35 WP	0.2	1.5 ab	3.8 abc	3.5 ab	5.3 abc
S-1812	4 EC	0.1	3.5 b	7.0 abc	2.8 ab	4.3 ab
S-1812	4 EC	0.2	0.5 a	3.8 abc	0.3 a	4.0ab
Avaunt	30 WG	0.045	2.0 ab	4.0 abc	4.3 ab	2.0 a
Avaunt	30 WG	0.065	1.0 ab	0.3 a	4.5 ab	1.5 a
Decis	0.2 EC	0.0169	1.3 ab	11.8 bc	16.0 bcd	17.5 cd
Decis	0.2 EC	0.028	1.5 ab	5.5 abc	11.8 abcd	11.0 abc
Success	2.0 SC	0.067	2.0 ab	5.5 abc	8.5 abc	7.5 abc
Lannate+Asana	90 SP+ 0.66 EC	0.45 + 0.042	2.5 ab	5.3 abc	26.5 d	16.8bcd
Untreated	----- -----	----- -----	1.5 ab	26.3 d	47.3 e	60.0f

Means within a column followed by the same letter (s) are not significantly different (DMRT, P=0.05)
WDF = Worm damaged fruit; red & green, all fruit examined for worm damage.)

