

Section V
Soil Arthropods

LACK OF CONTROL OF GARDEN CENTIPEDES WITH INSECTICIDES

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California growers in the San Joaquin Delta region often face problems with garden centipedes in crops such as asparagus, beans, sugar beets, potatoes and corn. Typically infestations are localised and occur in the soils high in organic matter and clay soils that have cracks and crevices that allow for movement of the symphylans. Dyfonate has been the material of choice but is no longer available. Mocap is still effective in beans, corn and potatoes but is not registered in tomatoes. Many growers have applied diazinon with erratic results. This trial was initiated in order to evaluate control with Platinum and Admire in transplanted processing tomatoes.

Products	Active ingredient	Timing	Formulation	G ai/100m	Lb ai/ac
1. Platinum	Neonicotiniod	Transplanting	2SC	0.75	0.09
2. Platinum	Neonicotiniod	Transplanting	2SC	1.04	0.12
3. Admire	Imadiclopid	Transplanting	2SC	2.80	0.33
4. AG 600 WBC	Diazinon	Transplanting	AG600	34.40	4.00
8. Untreated	Water	Transplanting			

Each material was dissolved in water with 250ml of solution applied to the soil immediately after transplanting. The solution was applied to the base of the plant and allowed to penetrate the soil profile to a level just below the plug. All materials were applied on June 3, 1999.

Stand counts were taken by visually rating the number of plants alive out of the total of 20 in the plots. Stand vigor was evaluated based on the growth and vigor of the plants outside of the affected area. Counts of symphylids per plants was highly variable and only used in the precount evaluation. The Diazinon AG600 was the only material to provide protection from garden centipedes in this trial. Diazinon provided protection for the 48 days the plants were observed.

Tomato Symphylid Trial-1999
Tracy, Ca

Trt.	June 3-existing plant population presample			
	Stand Count	Stand Vigor	# Symphylid per plot	# Symphylid per plant
Platinum 2SC 0.75 g ai	11.0 b	3.9 bc	11.5 ab	2.6 ab
Platinum 2SC1.04 g ai	9.0 ab	3.1 abc	14.0 ab	2.8 ab
Admire 2FS 2.8 g ai	5.8 a	2.1 a	19.5 b	4.1 b
Diazinon AG600 34 g ai	11.5 b	4.8 c	4.8 a	1.1 a
Untreated Control	8.4 ab	2.4 ab	11.3 ab	2.5 ab

Means within a column followed by the same letter(s) are not significantly different (DMRT, P=0.05)
Stand Count is out of twenty plants Stand vigor is visual rating, 1=low vigor, 10=high vigor
Yield=mean fresh weight in grams of whole plants

Tomato Symphylid Trial-1999
Tracy, Ca

Trt.	June 17 14 days after trt		July 1 28 days after trt		July 21 48 days after trt	
	Stand Count	Stand Vigor	Stand Count	Stand Vigor	Stand Count	Grams per plant
Platinum 2SC 0.75 g ai	20 a	4.8 a	14 ab	4.3 a	14 ab	153 a
Platinum 2SC1.04 g ai	20 a	4.5 a	13 a	3.8 a	13 a	129 a
Admire 2FS 2.8 g ai	20 a	5.3 ab	16 ab	5.6 ab	16 ab	270 a
Diazinon AG600 34 g ai	20 a	7.8 b	19 b	9 b	19 b	579 b
Untreated Control	19 a	4.7 a	15 ab	4.3 a	15 ab	142 a

Means within a column followed by the same letter(s) are not significantly different (DMRT, P=0.05)
Stand Count is out of twenty plants Stand vigor is visual rating, 1=low vigor, 10=high vigor
Yield=mean fresh weight in grams of whole plants

