

Section VIII
Mites & Sap-Sucking Pests

ACARICIDAL CONTROL OF CYCLAMEN MITE IN STRAWBERRIES

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Four acaricides were evaluated for cyclamen mite, *Phytonemus pallidus*, efficacy as a renovation treatment on 'Totem' strawberries at the Vancouver REU. Treatments were applied on 2 August to pre-selected 3 year-old plants. To simulate postharvest renovation, we used a rotary lawnmower to form one ft² plots from cyclamen mite damaged plants. Treatments were applied to run-off with a Solo backpack pressure sprayer at 40 psi with a 5500 adjustable conejet nozzle. The trial consisted of two rates of Acramite (bifenazate), Mesa (milbemectin) and single rates of Thiodan (endosulfan), Kanemite (acequinocyl) and untreated check. Treatments were replicated three times with 3 crowns removed at 4 and 7 days posttreatment and placed in a Berlese-Tullgren funnel for controlled heat extraction into 70% ethanol.

Compared with the untreated check, all of the treatments were significantly different at 4 days posttreatment. Acramite was registered on strawberries for spider mite control at 0.75-1.0 lb(AI)/acre in early 2002. This year's data indicate again that Acramite's cyclamen mite activity at the 1.0 rate is comparable with Thiodan to 7 days posttreatment. Mesa was registered last year on strawberry for spider mites, eriophyids and tarsonemids (broad and cyclamen mite species). Thiodan remains the most effective cyclamen mite control in strawberry. However, Mesa at the rate of 0.192 lb(AI)/acre and the recently registered Kanemite (acequinocyl) provided comparable control with Thiodan to 7 days. We concur with Gowan that 2 applications 7-10 days apart should be applied when cyclamen mite symptoms are apparent either in the spring or postharvest. The maximum number of spray applications per crop season is 4 for Mesa and 2 for Thiodan and Kanemite. The traditional recommendation for cyclamen mite control in PNW strawberries is at the dormant and prebloom periods. The spring application(s) for cyclamen mite control is confronted with the physical problem of dense canopy growth that reduces effective penetration into crowns where adult females overwinter. Past research indicate the optimum period to apply a contact miticide for cyclamen mite is when the population is migrating into the fall maturing crown inflorescences. The ideal timing is soon after field renovation

Table 1. 2004, Cyclamen mite trial in strawberry.

Treatment	lb(AI)/acre	Precount	Mean/ ft ²	
			4DAT	7DAT
Acramite 50WS	0.5	19.0a	27.3b	11.3bc
Acramite 50WS	1	19.3a	8.7b	2.3bc
Thiodan 3EC	2	16.7a	5.0c	0.7c
Mesa 1%EC	0.0145	14.7a	14.0c	16.7b
Mesa 1%EC	0.0194	18.0a	6.3c	8.7bc
Kanemite 15SC	0.3	16.0a	8.0c	13.0bc
Untreated check		19.7a	38.3a	34.0a

Means within columns following by the same letter are not significantly different (Tukey HSD test, $P < 0.05$).