

Section VIII.

Mites and Sap-sucking Insects

**EVALUATION OF FOLIAR APPLIED INSECTICIDES FOR CONTROL OF
TWO SPOTTED SPIDER MITES, *Tetranychus urticae*,
In Vegetable Spaghetti Squash**

Calvin Benny Fouché, Luis Alex de Almeida Acosta & Adrienne Bertolucci
University of California Cooperative Extension
420 South Wilson Way, Stockton, California 95205-6243

Experimental plots were established at Two Bees Ag Research and Consulting Farms in Escalon, California. The purpose of the research was to evaluate the effectiveness of five different materials for control of the twospotted spider mites in direct seeded squash fields. The treatments were applied with a Solo 5 hp backpack mist blower from both sides of the bed. A volume of 107 gallons/ acre was used. One application was made on July 27th.

Materials in Trial

Products	Formulation	Prod/Acre
Untreated Control		
Acramite	4 SC	12 oz. Prod.
Acramite	4 SC	16 oz. Prod.
Acramite	50 WS	12 oz. wt.
Fujimite	50 SC	32 oz. Prod.
Agrimek + ¼ % oil	.15 EC	12 oz. Prod.

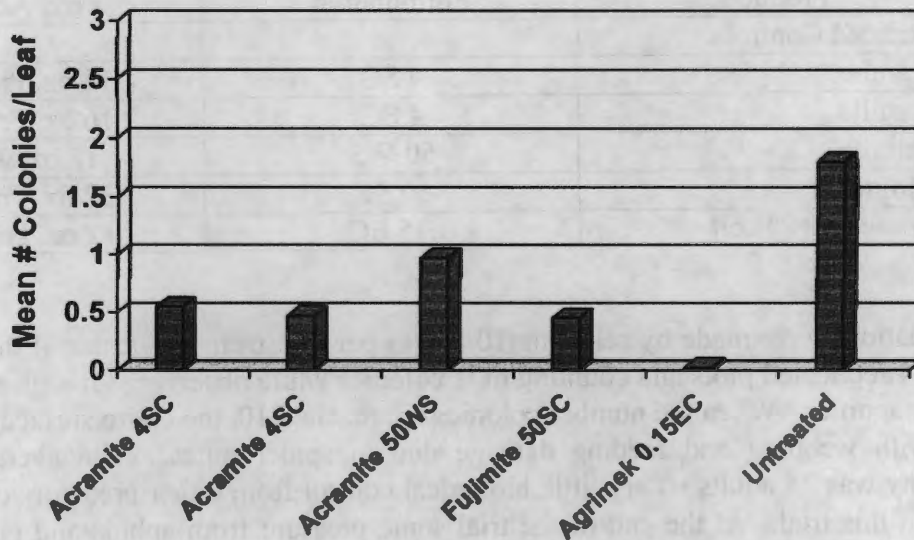
Mite evaluations were made by selecting 10 leaves per plot from the center of the squash plants in each of 4 replicated plots and counting mite colonies while observing through a 4-power, head mounted magnifier. When the number colonies approached 10, the entire surface of the leaf was covered with webbing and feeding damage due to spider mites. The average number of mites/colony was 24 adults. Very little biological control from either predators or parasites was observed in this trial. At the end of the trial some pressure from aphids and powdery mildew was observed and complicated the evaluation of spider mite activity. Fruit was removed from the plants at frequent intervals in order to keep the growth vegetative and lush.

Control of Twospotted Spider Mites, *Tetranychus urticae*, in Spaghetti Squash 2004

Products	Formulation	Prod/Acre	Rating 03 Aug	Rating 10 Aug	Rating 17 Aug
Untreated Control			1.6 b	1.8 b	1.8 d
Acramite	4 SC	12 oz. Prod.	0.17 a	0.75 a	0.55 bc
Acramite	4 SC	16 oz. Prod.	0.12 a	0.59 a	0.47 b
Acramite	50 WS	12 oz. wt.	0.20 a	2.01 b	0.97 c
Fujimite	50 SC	32 oz. Prod.	0.02 a	0.81 a	0.45 ab
Agrimek + ¼ % oil	.15 EC	12 oz. Prod.	0.12 a	0.81 a	0.02a

Means in a column followed by the same letter are not significantly different at the 5%Level.DMR

Mean Number of Mite Colonies/Leaf of Zucchini Squash - Escalon, CA, August 17, 2004



All materials provided good control of spider mites by the end of the trial. On the August 10 evaluation the Acramite 50WS appeared to weaken, however the levels of mite colonies in this treatment dropped by the next evaluation. The Agrimek + oil provided the best level of control by the final rating. Overall, considering the population increase due to the early squash bug treatment with a pyrethroid, all materials performed well in this study.