

Section VIII  
Mites and Sap-sucking Insects

**Behavioral Response of European Asparagus Aphid to Foliar Applied Insecticides**  
*Brachycorynella asparagi*

Benny Fouche & Debra Boelk  
University of California Cooperative Extension  
420 South Wilson Way, Stockton, California 95205-6243

Experimental plots were established at Victoria Island Farms, west of Stockton, California. The purpose of the research was to evaluate the effectiveness of nine different materials for control of European asparagus aphids feeding on asparagus fern. Plot size was 5 feet wide by 40 feet long with 4 replications. The treatments were applied with a Co2 powered backpack powered spray boom with the application made from both sides of the bed. A volume of 50 gallons/ acre was used in order to simulate the same type of coverage obtained by the grower. Three TJ-60 8002-VS twin even flat spray tips were used to produce fine particle size spray droplets. One application was made on October 5<sup>th</sup>, 2005.

**Materials in Trial**

Products	Formulation	Prod/Acre
Untreated Control		
Provado	1.6 F	8 oz.
Assail	30 SG	2.5 oz.
Venom	20 SG	300 gr.
Platinum	21.6 %	8 oz
Fulfill	50 WDG	2.75 oz
Veggie Pharm	5 %	12.5 Gallons
Warrior	11.4 %	3.84 oz
V10170	50 WDG	40 gr
Knack	0.86 EC	16.4 oz

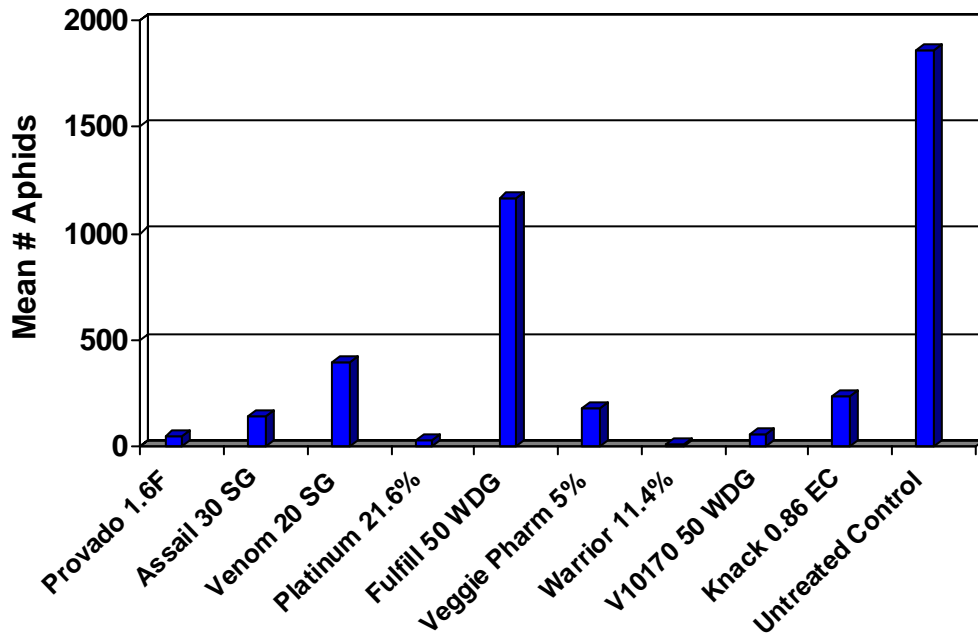
Aphid behavior was evaluated by beating the fern in three areas of the plot in each of 4 replications and rapidly counting aphids observed on an 8 ½ inch by 11 inch foam board. While many lady bird beetles were observed in this trial, they did not provide adequate control until after the aphid numbers had been at damaging levels for some time in the asparagus fern. Evaluations were made for three consecutive weeks following the application.

**Control of European Asparagus Aphid, *Brachycorynella asparagi*, 2004**

Products	Formulation	Prod/Acre	Aphids 11 Oct	Aphids 17 Oct	Aphids 27 Oct
Untreated Control			722b	572b	1861c
Provado	1.6 F	8 oz.	189a	87a	45a
Assail	30 SG	2.5 oz.	67a	166a	139a
Venom	20 SG	300 gr.	112a	87a	392a
Platinum	21.6 %	8 oz	83a	81a	28a
Fulfill	50 WDG	2.75 oz	194a	213a	1161b
Veggie Pharm	5 %	12.5 Gal	116a	47a	176a
Warrior	11.4 %	3.84 oz	8a	3a	5a
V10170	50 WDG	40 gr	35a	28a	57a
Knack	0.86 EC	16.4 oz	110a	284a	231a

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

**Mean Number of European Asparagus Aphids, 2005**



All materials provided good control of spider mites by the end of the trial with the exception of Fulfill. Coverage at 50 GPA was minimal for contact materials and better control could also be expected if air blast type sprayers were used to help penetrate the dense fern.