

Section VIII
Mites & Sap-Sucking Pests

BAMBOO SPIDER MITE CONTROL WITH FOLIAR APPLIED ACARICIDES

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Bamboo spider mites, *Stigmaeopsis celarius* Banks (= *Schizotetranychus celarius*) live in protected web nests and are difficult to control. Current recommendations are outdated and do not reflect the new acaricide chemistries. Nine acaricides were evaluated for bamboo spider mite control. Bioassays were performed with a Precision Spray Tower. Acaricides were applied at 15 psi in 1 ml of an aqueous suspension on to 0.5 inch long sections of bamboo leaves, *Phyllostachys nigra* inverted on water moistened cotton wool pads placed in Petri dishes. Spider mites were scored as alive or dead based on the presence/absence of motile live stages at 1, 2 and 3 days posttreatment. Replicated bioassays were performed on 23, 28 and 30 September 2004. Data for corresponding replications for the trial dates were from 25 leaf arenas per treatment.

Talstar (bifenthrin) provided complete control of the heavily webbed bamboo spider mite colonies after 24 hours. Metasystox-R (oxydemeton-methyl), Tame (fenpropathrin), Sanmite (pyridaben) and Mesa (milbemectin) provided comparable results with Talstar at 2 and 3 days posttreatment. The selective contact miticides Avid (abamectin), Floramite (bifenazate) and Kanemite (acequinocyl) performed poorly against the bamboo spider mite after 3 days. Specialty bamboo growers require quick knockdown of incipient bamboo spider mite colonies that can rapidly construct dense web nests reducing pesticide contact, making conventional control methods difficult.

Table 1. Bamboo spider mite bioassay on *Phyllostachys nigra* foliage.

Treatment	amt/100 gal	lb(AI)	Percent mortality		
			1DAT	2DAT	3DAT
Avid 0.15EC	118 ml	0.005	15c	30b	44b
Floramite SC	113 g	0.25	15c	15bc	23bc
Kanemite 15EC	917 ml	0.3	11c	15bc	26bc
Metasystox-R	946 ml	0.5	96a	96a	100a
Mesa EC	946 ml	0.02	60b	78a	78a
Sanmite 75WP	113g	0.2	84ab	96a	100a
Talstar F	592 ml	0.1	100a		
Tame 2.4EC	473 ml	0.3	89a	100a	
Untreated check			0.0c	0.0c	0.0c

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