Section 1 Mites and Sap-Sucking Insects

> CONTROL OF TWOSPOTTED SPIDER MITE ON AZUKI BEAN H.G. Aguilar(1), L.K. Tanigoshi(1) and T.A. Lumpkin(2) (1) Department of Entomology, Washington State University, Pullman, WA 99163-6382

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Five materials were evaluated to control Tetranychus urticae Koch (TSSM) on azuki bean, Vigna angularis at the Irrigated Agriculture Research and Extension Center, Prosser, Benton County, WA. Spray treatments were applied with a back pack sprayer calibrated to deliver 25 gal/acre at 60 psi. A completely randomized design was used with 0.01 acre plots replicated 5 times. Treatments were applied twice, on 9 September and 17 September 1993. TSSM females were sampled by radomly selecting 20 leaflets/plot. Leaflets were place in paper bags and kept cool in a coldbox until processed with a mite brushing machine. This Summer, the four best treatments evaluated last year, were sprayed again as well as a new chemical. All the pesticides worked efficiently controlling the TSSM population. Four weeks after the second application, the five chemicals evaluated still showed a very low population of the pest, whereas the untreated check had a considerable weekly increase. These data show that when plants have high spider mite populations, two applications with a weekly interval, could be very effective and are able to confer a notable residuality.

Mean No. TSSM/leaf*		
10 Sep	16 Sep	24 Sep
26.64a	12.84c	0.12b
28.20a	32.28a	2.64b
32.28a	29.88ab	0.48b
36.72a	15.00bc	0.72b
33.84a	24.24abc	2.28b
35.52a	27.36abc	41.16a
1 Oct	8 Oct	15 Oct
0.60b	2.04b	0.00b
1.92b	6.24b	0.96b
0.84b	4.68b	1.08b
0.48b	1.68b	0.24b
0.36b	0.00b	0.12b
66.36a	155.40a	
	10 Sep 26.64a 28.20a 32.28a 36.72a 33.84a 35.52a 1 Oct 0.60b 1.92b 0.84b 0.84b 0.48b 0.36b	10 Sep 16 Sep   26.64a 12.84c   28.20a 32.28a   32.28a 29.88ab   36.72a 15.00bc   33.84a 24.24abc   35.52a 27.36abc   1 Oct 8 Oct   0.60b 2.04b   1.92b 6.24b   0.84b 4.68b   0.48b 1.68b   0.36b 0.00b

\* Means within the same column not followed by the same letter differ significantly (P= 0.05) LSD.