Section I Mites and Sap-Sucking Insects

> MITE MANAGEMENT ON HOPS W. W. Cone, L. C. Wright and M. M. Conant Washington State University-Prosser Irrigated Agriculture Research and Extension Center Prosser, WA 99350 (509) 786-2226

Abamectin (0.02 lbs Al/A) as an acaricide combined with Imidocloprid (0.1 lbs Al/A) as an aphicide gave superior results in replicated plots of hops at the Irrigated Agriculture Research and Extension Center (IAREC). Bifenthrin (0.1 lbs Al/A) and RH 7988 (0.06 lbs Al/A) were very effective against hop aphids. Chlorpyrifos, used in 1993 under Section 18 at 1.0 lbs Al/A provided fair aphid control. M-Pede provided some aphid control and may be of interest in a program using natural enemies as part of the management strategy.

The use of adjuvants to enhance the activity of abamectin was evaluated on four hop varieties. The adjuvants and the increased yield in 200 lb bales/A over Abamectin alone were: LI 700, +2.217; M-Pede 0.02, + 1.307; R-900, +1.212; Kinetic, +0.444; M-Pede 0.01, 0.222; and Ad-Wet, 0.172.

Systemic insecticides were injected into a subsurface drip irrigation system for control of hop aphids. A single injection of Imidocloprid (0.05 and 0.1 lbs AI/A) on May 27 gave season-long aphid control. Dimethoate (0.5 and 1.0 lbs AI/A) was almost as effective. CGA 215944 and disulfoton were tested at several rates and were not effective for control of hop aphid.