**ORCHIDS: Dendrobium** Jaquelyn Thomas '0580' cvs. Uniwai Blush (UH 44), Uniwai Supreme (UH 232), Uniwai Pearl (UH 306)

A. H. Hara and D. J. Kawakami
Beaumont Agricultural Research Center
University of Hawaii at Manoa
461 W. Lanikaula St.
Hilo, Hawaii 96720

**PHYTOTOXICITY ON DENDROBIUM, HAWAII, 1986:** Phytotoxicity trials were conducted on matured dendrobium orchid plants, grown under 30% polypropylene net shade in no. 3 crushed basalt rock. Four weekly applications of selected insecticides at 4 x the recommended use rate were applied on 6, 13, 20 and 27 Jun to runoff using a compressed air sprayer with a no. 8004 Teejet nozzle at 40 psi. On 18 Jul, raceme length, flower length and the number of flowers per spray were recorded. Racemes were excised from the cane and measured for total length. Flower length was measured from the base of the most matured flower to the base of the youngest flower. Flowers and leaves were observed weekly for phytotoxic symptoms. Each treatment consisted of 12 plants replicated twice.

There were no significant differences among treatments in raceme length, flower spray length and the number of flowers per spray. Phytotoxicity was not observed on the foliage or flowers of the treated plants; however, objectionable spray residue did occur with Dursban 50W at the rate of 2.0 lb AI/100 gal.

**POINSETTIA: Euphorbium pulcherrima** var. Annette Hegg Dark Red

Greenhouse whitefly; *Trialeurodes vaporariorum* Westwood

P. J. Vittum and R. A. Mimms
University of Massachusetts
Suburban Experiment Station
240 Beaver Street
Waltham, MA 02254

**PHYTOTOXICITY AND GREENHOUSE WHITEFLY CONTROL ON POINSETTIAS, MASSACHUSETTS GREENHOUSE, 1986:** Plants were grown in 6 inch plastic pots in 25% Metro Mix 350, 25% Terralite, and 50% sterilized field soil. Plants were pinched to 7 leaves on 9 Oct. Bracts began to color early in the second week of Nov. Insecticides were applied on 30 Sep and again on 14 Oct. Each insecticide except Lynx was sprayed to run-off with a CO2-powered sprayer delivering 35 psi. Lynx was applied as a soil drench, with 100 ml of solution applied to each pot. Foliar sprays were directed to both upper and lower leaf surfaces of 4 plants, which were then arranged randomly on benches. Observations for efficacy and phytotoxicity were made at 3, 7, 10, 14, and 21 DAT.

Oxamyl at the higher rate induced a marginal leaf necrosis, but it was not severe enough to render the plant unsaleable. The drench with Lynx 25WP resulted in some chlorosis shortly after the first application (3 to 7 days), but the plant ultimately outgrew the damage. None of the other materials induced any visible phytotoxic response in any of the plants. All of the materials reduced whitefly populations to an occasional immature on a leaf, compared 3 to 7 immatures per leaf on the untreated check plants.