ORCHID INSECT CONTROL AND FOUR MAJOR PESTS.1/

G. W. Dekle, 2/ L. C. Kuitert, 3/ and D. E. Short 4/

INTRODUCTION: THE NUMBER OF INSECTS AND OTHER PESTS KNOWN TO BE ASSOCIATED WITH ORCHIDS IN FLORIDA EXCEEDS 100 SPECIES. FOUR OF THE MAJOR PESTS ARE SHOWN BELOW: BOISDUVAL SCALE (FIG. 1), BROWN SOFT SCALE (FIG. 2), PHALAENOPSIS MITE (FIG. 3) AND ORCHID MEALYBUG (FIG. 4). USUALLY, WHEN GOOD CONTROL OF THESE PESTS IS MAINTAINED, THE OTHER PESTS SHOULD NOT DEVELOP INTO A SERIOUS PROBLEM ON ORCHIDS.

CONTROL: CONTROL RECOMMENDATIONS OF THESE AND OTHER PESTS ARE PRESENTED ON THE REVERSE SIDE.



Fig. 1. Boisduval scale (<u>Diaspis Boisduvalii</u> Sign.), an armored scale on leaf (X15).

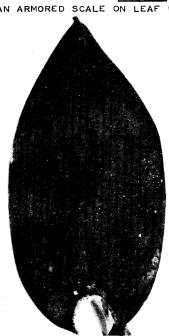


Fig. 3. Phalaenopsis Mite ($\underline{\text{Tenuipalpus}}$ $\underline{\text{Pacificus}}$ Baker)(X^{1}). White specks on leaf are cast skins.

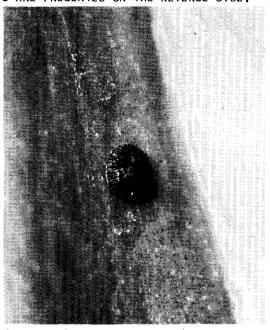


Fig. 2. Brown soft scale (<u>Coccus Hesperloum</u> (Linn.)), a soft scale on leaf (X8).



Fig. 4. Orchid Mealybug (<u>Pseudococcus Micro-circulus</u> McKenzie) (X2). Inset (X4).

1/ Contribution No. 308, Bureau of Entomology, P. O. Box 1269, Gainesville, Florida 32602. 2/ Taxonomic Entomologist, Division of Plant Industry, Gainesville, Florida 32602.

Entomologist, IFAS, Univ. of Florida, Gainesville, Florida 32611.

/ Extension Entomologist, IFAS, Univ. of Florida, Gainesville, Florida 32611.

SPRAY CHART FOR ORCHID INSECTS

(FROM FLORIDA INSECT CONTROL GUIDE)

INSECT	Insecticide and Formulation	Dosage	
		1 GAL.	100 GAL.
ARMORED Scales,	*DIMETHOATE, 23-25% EC	2 TSP.	2 PTS.
Soft Scales, AND	**ETHION, 23-25% EC	2 TSP.	2 PTS.
MEALYBUGS	PLUS OIL EMULSION 97%	3 TBS.	3 q т s.
	MALATHION, 25% WP	6 TBS.	б LBS.
	MALATHION, 50-57% EC	1 TBS.	3 PTS.
	META-SYSTOX-R, 25% EC	2 TSP.	2 PTS.
	DIAZINON, 25% EC	2 TSP.	2 PTS.
MITES	CHLOROBENZILATE, 25% WP	1 TBS.	1 LB.
	ETHION, 23-25% EC	2 TSP.	2 PTS.
	Kelthane, 18/8 EC	2 TSP.	2 PTS.
	KELTHANE, 18-18 WP	2 TBS.	2 LB s.
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APH I DS	DIAZINON, 25% EC	2 TSP.	2 pts.
	*DIMETHOATE, 23-25% EC	2 TSP.	2 PTS.
	LINDANE, 20% EC	1 TSP.	1 PT.
	LINDANE, 25% WP	1 TBS.	1 LB.
	MALATHION, 25% WP	4 TBS.	4 LBS.
	MALATHION, 50-57% EC	2 TSP.	2 PTS.
	META-SYSTOX-R, 25% EC	1 TSP.	1 PT.
SPRINGTAILS	*DIMETHOATE, 23-25% EC	2 TSP.	2 PTS.
AND THRIPS	LINDANE, 25% WP	1 ½TBS.	1 <u>2</u> ∟BS.
	MALATHION, 25% WP	4 TBS.	4 LBS.
	MALATHION, 50-57% EC	2 TSP.	2 PTS.
CATERPILLARS, BEETLES,	DIAZINON, 25% EC	2 TSP.	2 P TS.
AND WEEVILS	SEVIN. 50% WP	2 TBS.	2 LBS.
ANTS AND	CHLORDANE, 40% WP	2½TBS.	2 <u>1</u> LB s.
Cockroaches	CHLORDANE, 42-46% EC	2 TSP.	2 PTS.
	DIAZINON, 25% EC	2 TSP.	2 PTS.
	(SPRAY BENCHES, INTERIOR AND EXTERIOR WALLS)		
Snails and Slugs	MESUROL BAIT (FOLLOW LABEL DIRECT METALDEHYDE, 15% D (DUST IN AND A METALDEHYDE, WP OR BAITS (FOLLOW ZECTRAN, EC (FOLLOW LABEL DIRECT	AROUND POTS AND BENCHES LABEL DIRECTIONS)	3)

ABBREVIATIONS: TBS. = TABLESPOONS; TSP. = TEASPOONS; PT. = PINT; QT. = QUART LB. = POUND; EC = EMULSIFIABLE CONCENTRATION; WP = WETTABLE POWDER; D = DUST

^{*}DIMETHOATE: This material is reported to cause injury to the following orchid plants:

Calanthe Sp., Cynoches dentricosum Bateman (= C. ventricosum Bateman var.

Warscewiczii (Reichb. F.) P. H. Allen) which is erroneously advertised in orchid trade lists in the United States as Cynoches chlorochilon Klotzsch., Dendrobium Moschatum Lindl., D. pulchellum Roxburgh (= D. dalhousieanum Wall.), D. Phalenopsis (Type) and Neomogra Irrorata Rolfe.

^{**}ETHION PLUS OIL EMULSION: NOT RECOMMENDED FOR COMMUNITY POTS. ETHION IS AVAILABLE WITH OIL IN PREPARED FORMULATION; FOLLOW LABEL DIRECTIONS FOR SCALE CONTROL.