

ORCHID INSECT CONTROL AND FOUR MAJOR PESTS,<sup>1/</sup>

G. W. DEKLE,<sup>2/</sup> L. C. KUITERT,<sup>3/</sup> AND D. E. SHORT<sup>4/</sup>

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), PHALAEOPSIS 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 (DIASPIS BOISDUVALII SIGN.), AN ARMORED SCALE ON LEAF (X15).

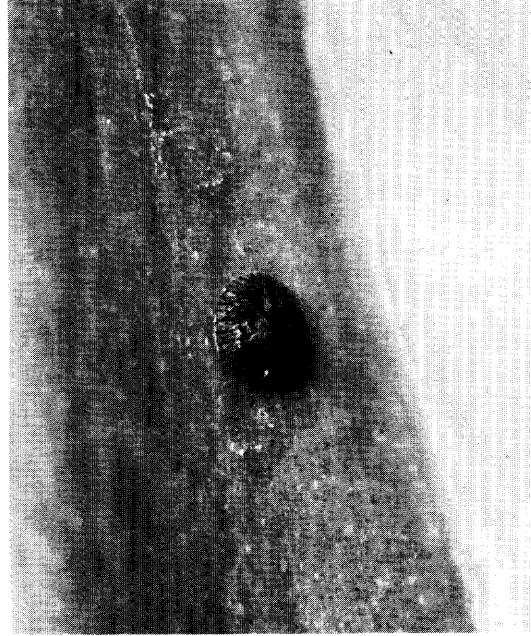


FIG. 2. BROWN SOFT SCALE (COCCUS HESPERIDUM (LINN.)), A SOFT SCALE ON LEAF (X8).



FIG. 3. PHALAEOPSIS MITE (TENUIPALPUS PACIFICUS BAKER) (X4). WHITE SPECKS ON LEAF ARE CAST SKINS.



FIG. 4. ORCHID MEALYBUG (PSEUDOCOCCUS MICROCIRCULUS MCKENZIE) (X2). INSET (X4).

<sup>1/</sup> CONTRIBUTION No. 308, BUREAU OF ENTOMOLOGY, P. O. Box 1269, GAINESVILLE, FLORIDA 32602.  
<sup>2/</sup> TAXONOMIC ENTOMOLOGIST, DIVISION OF PLANT INDUSTRY, GAINESVILLE, FLORIDA 32602.  
<sup>3/</sup> ENTOMOLOGIST, IFAS, UNIV. OF FLORIDA, GAINESVILLE, FLORIDA 32611.  
<sup>4/</sup> 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, SOFT SCALES, AND MEALYBUGS	*DIMETHOATE, 23-25% EC	2 TSP.	2 PTS.
	**ETHION, 23-25% EC	2 TSP.	2 PTS.
	PLUS OIL EMULSION 97%	3 TBS.	3 QTS.
	MALATHION, 25% WP	6 TBS.	6 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, 18½% EC	2 TSP.	2 PTS.
	KELTHANE, 18½% WP	2 TBS.	2 LBS.
APHIDS	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 AND THRIPS	*DIMETHOATE, 23-25% EC	2 TSP.	2 PTS.
	LINDANE, 25% WP	1½ TBS.	1½ LBS.
	MALATHION, 25% WP	4 TBS.	4 LBS.
	MALATHION, 50-57% EC	2 TSP.	2 PTS.
CATERPILLARS, BEETLES, AND WEEVILS	DIAZINON, 25% EC	2 TSP.	2 PTS.
	SEVIN, 50% WP	2 TBS.	2 LBS.
ANTS AND COCKROACHES	CHLORDANE, 40% WP	2½ TBS.	2½ LBS.
	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 DIRECTIONS)		
	METALDEHYDE, 15% D (DUST IN AND AROUND POTS AND BENCHES)		
	METALDEHYDE, WP OR BAITS (FOLLOW LABEL DIRECTIONS)		
	ZECTRAN, EC (FOLLOW LABEL DIRECTIONS)		

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.  
WARSCIEWICZII (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 NEOMOOREA 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.