

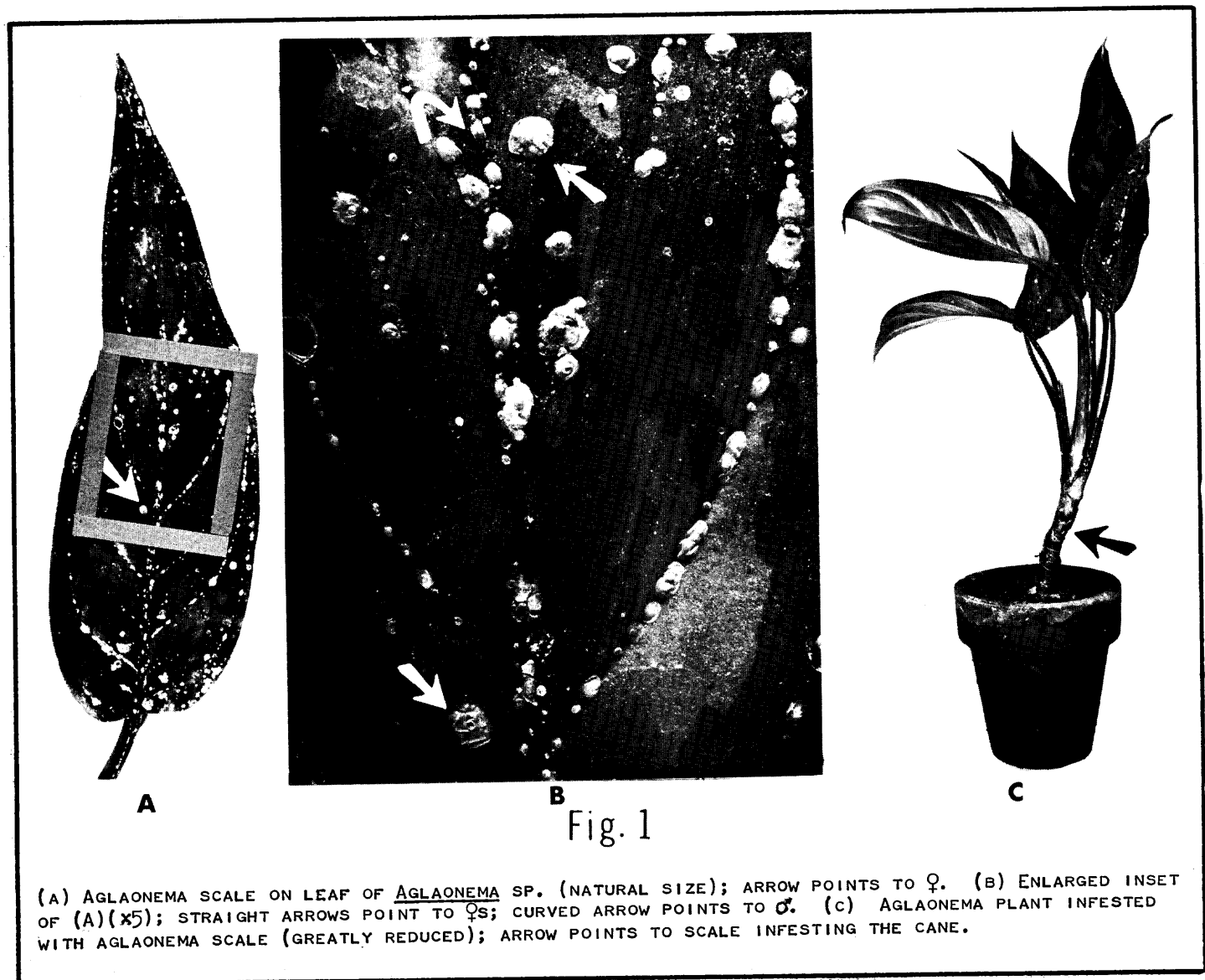
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DIVISION OF PLANT INDUSTRY

AGLAONEMA SCALE (TEMNASPIDIOTUS EXCISUS (GREEN))¹
(HOMOPTERA: DIASPIDIDAE)

G. W. DEKLE

INTRODUCTION: AGLAONEMA SCALE IS THE PROPOSED COMMON NAME FOR TEMNASPIDIOTUS EXCISUS (GREEN), AN ARMORED SCALE THAT HAS BECOME ESTABLISHED AT SEVERAL FLORIDA LOCALITIES. AGLAONEMA TIP CUTTINGS FROM PUERTO RICO, INFESTED WITH AGLAONEMA SCALE, HAVE BEEN DETECTED IN GREENHOUSE ROOTING BEDS BY PLANT SPECIALISTS. THE IMPORTED CUTTINGS PROBABLY ARE RESPONSIBLE FOR THE INTRODUCTION OF THIS ARMORED SCALE INTO FLORIDA. AGLAONEMA SCALE ORIGINALLY WAS DESCRIBED BY E. E. GREEN IN 1896 FROM SPECIMENS COLLECTED ON CYANOTIS PILOSA SCHULT. F. AT PUNDALUOYA, CEYLON. IN 1915, GREEN IDENTIFIED THE ARMORED SCALE FROM SPECIMENS ON THE FRUIT OF BANANA (MUSA SP.) FROM FIJI AND LATER FROM CLERODENDRON INERME GAERTN. FROM FORMOSA. DR. D. J. WILLIAMS, COCCIDOLOGIST, INSECT IDENTIFICATION AND PARASITE INTRODUCTION RESEARCH BRANCH, WASHINGTON, D. C., BELIEVES THIS SCALE HAS A WIDER DISTRIBUTION THAN IS INDICATED BY THE DISTRIBUTION MAP (FIG. 2). R. F. WILKEY, SYSTEMATIC ENTOMOLOGIST, CALIFORNIA DEPARTMENT OF AGRICULTURE, CONFIRMED THE FLORIDA IDENTIFICATIONS IN FEBRUARY 1966. WILKEY REPORTED (IN LITT.) THAT THIS SCALE IS FREQUENTLY INTERCEPTED IN CALIFORNIA FROM PUERTO RICO AND OTHER LOCATIONS. AGLAONEMA SCALE APPARENTLY HAS BEEN IN FLORIDA FOR SEVERAL YEARS. THE AUTHOR HAS EXAMINED ALL SLIDES IN THE FLORIDA STATE COLLECTION OF ARTHROPODS THAT WERE IDENTIFIED AS COCONUT SCALE (ASPIDIOTUS DESTRUCTOR SIGNORET); TWO LOTS IDENTIFIED AS COCONUT SCALE WERE FOUND TO BE AGLAONEMA SCALE. THE COLLECTIONS WERE MADE IN 1964 ON AGLAONEMA COMMUTATUM SCHOTT. AT MIAMI, AND ON DIEFFENBACHIA SP. AT ST. PETERSBURG, BY J. R. MCFARLIN AND C. E. BINGAMAN, RESPECTIVELY, PLANT SPECIALISTS, DIVISION OF PLANT INDUSTRY.



(A) AGLAONEMA SCALE ON LEAF OF AGLAONEMA SP. (NATURAL SIZE); ARROW POINTS TO ♀. (B) ENLARGED INSET OF (A) (x5); STRAIGHT ARROWS POINT TO ♀S; CURVED ARROW POINTS TO ♂. (C) AGLAONEMA PLANT INFESTED WITH AGLAONEMA SCALE (GREATLY REDUCED); ARROW POINTS TO SCALE INFESTING THE CANE.

DESCRIPTION: THE FEMALE ARMOR IS APPROXIMATELY CIRCULAR (VERY IRREGULAR IN SHAPE WHEN CROWDED), SLIGHTLY CONVEX, DIRTY WHITE TO FAINT YELLOW, THIN, SEMITRANSSPARENT, 1-1.5 MM IN DIAMETER. EXUVIAE IS CENTRAL TO SUBCENTRAL AND YELLOWISH (FIG. 1A & B). THE PREADULT MALE ARMOR IS OBLONG, THE SAME COLOR AS THE FEMALE, ABOUT 1 MM IN LENGTH AND 0.75 MM IN WIDTH. THE EXUVIAE IS SUBCENTRAL (FIG. 1B).

ECONOMIC IMPORTANCE: THE SCALE WILL NOT BECOME A SERIOUS PEST TO FOLIAGE PROPAGATORS WHO FOLLOW A REGULAR SPRAY PROGRAM. HOWEVER, THIS SCALE CAN BECOME A SERIOUS PEST ON SUCH PLANTS AS AGLAONEMA SPP. AND HOYA CARNOSA R. BR. WHEN CONTROLS ARE NEGLECTED.

HOSTS: AGLAONEMA SPP.; BAUHINIA VARIEGATA L.; CITRUS AURANTIFOLIA (SWINGLE) CHRISTM. (SOOR LIME, KEY LIME); CITRUS LIMON BURM. F. (LEMON); CITRUS SINENSIS OSBECK (SWEET ORANGE); CLERODENDRON INERME GAERTN.; COCOS NUCIFERA L. (COCONUT); CYANOTIS PILOSA SCHULT. F.; DIEFFENBACHIA SP.; ELEPHANTOPUS MOLLIS H. B. K.; HOYA CARNOSA R. BR. (WAX PLANT); IPOMOEA SP.; MUSA SP. (BANANA); LONICERA SP.; AND PEPEROMIA OBTUSIFOLIA A. DIETR.

CONTROL: THREE APPLICATIONS AT ONE MONTH INTERVALS OF DIMETHOATE (CYGON) 267 E (EMULSIFIABLE) OR META-SYSTOX R 25.4 LC (LIQUID CONCENTRATE) GAVE SATISFACTORY CONTROL IN TEST CONDUCTED BY DR. L. C. KUITERT, ENTOMOLOGIST, FLORIDA AGRICULTURAL EXPERIMENT STATION. FOLLOW MANUFACTURERS' RECOMMENDATIONS FOR SCALE CONTROL.

DISTRIBUTION: CEYLON, FIJI, FORMOSA, PHILIPPINES, PUERTO RICO, STRAITS SETTLEMENTS, TRINIDAD, UNITED STATES (FLORIDA); WEST PAKISTAN (FIG. 2). IN FLORIDA THE DIVISION OF PLANT INDUSTRY HAS COLLECTIONS FROM: DADE COUNTY (MIAMI), DUVAL COUNTY (JACKSONVILLE), ORANGE COUNTY (APOPKA AND PLYMOUTH), AND PINELLAS COUNTY (ST. PETERSBURG).

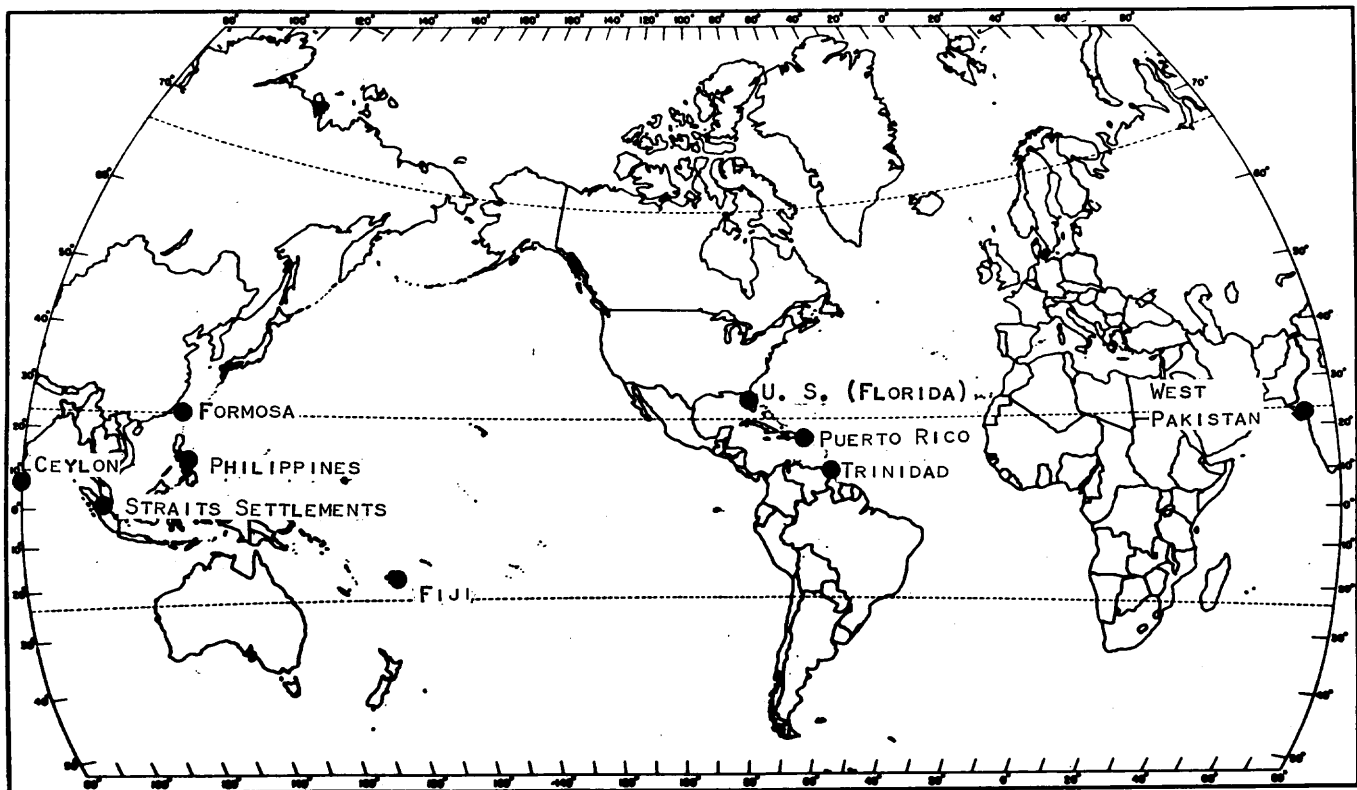


Fig. 2

GENERAL DISTRIBUTION OF AGLAONEMA SCALE, TEMNASPIDIOTUS EXCISUS (GREEN)

SELECTED REFERENCES:

- GREEN, E. E. 1896. THE COCCIDAE OF CEYLON, PART I, P 53; PL. 10, FIG. 7-9.
_____. 1915. NOTES ON COCCIDAE, COLLECTED BY F. P. JEPSON, GOVERNMENT ENTOMOLOGIST, FIJI. BULL. ENT. RES. 6:44.
MACGILLIVRAY, A. D. 1921. THE COCCIDAE, 403 P.
FERRIS, G. F. 1941. THE GENUS ASPIDIOTUS (HOMOPTERA; COCCOIDEA; DIASPIDIDAE) MICROENTOMOLOGY 6(2):53.
_____. 1952. REPORT UPON SCALE INSECTS COLLECTED IN CHINA (HOMOPTERA: COCCOIDEA) PART III, P 8-9.