

AN ERIOPHYID MITE, ERIOPHYES GARDENIELLA KEIFER, ON GARDENIA
(ERIOPHYIDAE - ACARINA) 1/

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INTRODUCTION: AN APPARENTLY HOST SPECIFIC ERIOPHYID MITE, ERIOPHYES GARDENIELLA KEIFER, WAS REPORTED FROM THE UNITED STATES IN 1965. THE MITE WAS TAKEN ON GARDENIA SP. IN FLORIDA BY L. O'BERRY, TECHNICIAN, BUREAU OF ENTOMOLOGY, DPI. THE MITE PREVIOUSLY WAS INTERCEPTED IN 1964, AT SAN DIEGO, CALIFORNIA, ON GARDENIA JASMINOIDES ELLIS FROM MEXICO CITY, THE ONLY KNOWN LOCALITY AT THAT TIME. IN MARCH 1968 THE MITE WAS COLLECTED IN A POLK COUNTY NURSERY BY J. C. DENMARK, R. R. SNELL, H. G. SCHMIDT, L. L. SKIPPER AND G. W. DEKLE. IN JUNE 1968 THE MITE WAS COLLECTED ON GARDENIA AT CHARLESTON, S. C., BY G. W. DEKLE. A SURVEY OF FLORIDA NURSERIES FOR ERIOPHYES GARDENIELLA KEIFER WAS CONDUCTED BY DPI DURING 1968 - 1970.

DESCRIPTION: KEIFER (1964) HAS TENTATIVELY PLACED THIS MITE IN THE GENUS ERIOPHYES, ALTHOUGH HE STATED THAT THE GENITALIA RESEMBLES CECIDOPHYES. THE DORSAL SETAE PROJECT CENTRAD (FIG. 1). THE FEMALE RANGES FROM 130 TO 160 MICRONS LONG AND FROM 35 TO 40 MICRONS THICK. THE BODY IS WORMLIKE, LIGHT YELLOW-WHITE WITH 52 TO 56 RINGS ON THE ABDOMEN. THE FORELEG (FIG. 2) IS RATHER STOUT AND 25 TO 27 MICRONS LONG. THE FEATHER-CLAW (FIG. 3) IS SMALL WITH FIVE RAYS. THE MALE IS SLIGHTLY SMALLER IN SIZE.

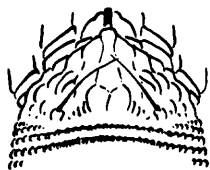


FIG. 1 DORSAL SETAE

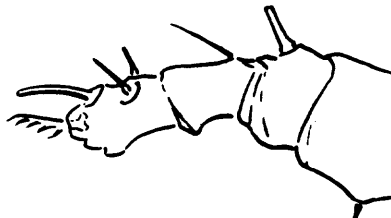
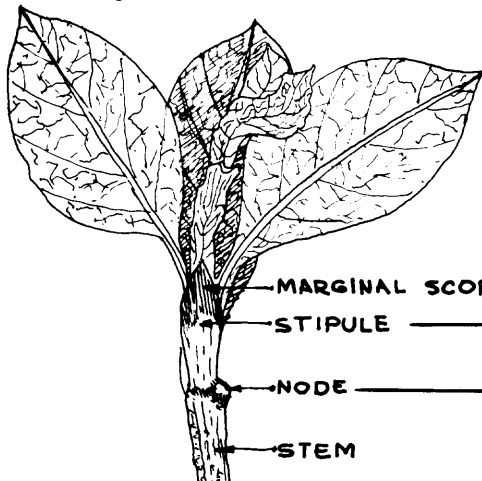


FIG. 2 FORELEG



FIG. 3 FEATHER CLAW

FIELD RECOGNITION: LOOK FOR GARDENIA STIPULE WITH MARGINAL SCORCH (FIG. 4). WHEN FOUND REMOVE A 2-INCH CUTTING AND CAREFULLY PEEL BACK THE STIPULE (FIG. 5). WITH A HAND LENS EXAMINE THAT SECTION OF STEM WHERE STIPULE WAS REMOVED. THE MITES APPEAR TO BE WHITE IN COLOR AND ARE USUALLY FOUND IN COLONIES OF 30 TO 80 MITES (FIG. 6).



SCHEMATIC DRAWING OF GARDENIA TIP CUTTING



FIG. 4 TIP CUTTING OF GARDENIA

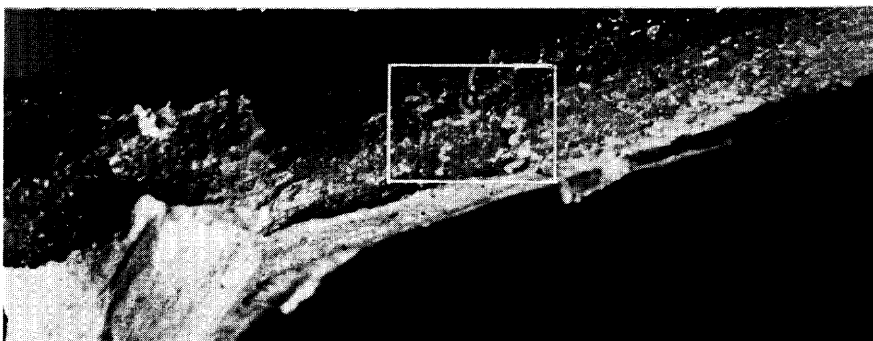


FIG. 5 STIPULE REMOVED EXPOSING COLONY OF MITES



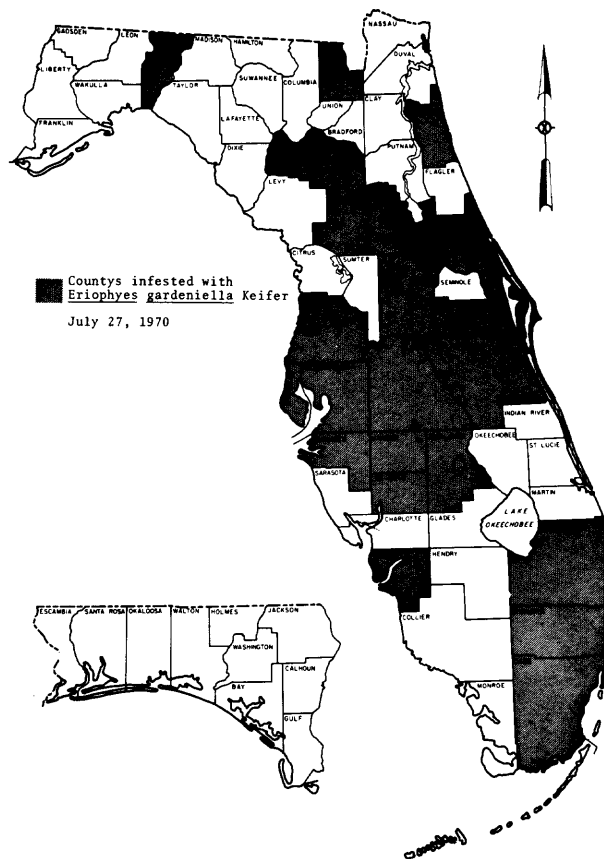
FIG. 6 MITES GREATLY ENLARGED

HOST: GARDENIA SPP.

ECONOMIC IMPORTANCE: UNKNOWN. THERE APPEARS TO BE SOME RELATIONSHIP BETWEEN THE REDUCTION IN INTER-NODE LENGTH ON INFESTED PLANTS.

DISTRIBUTION: THIS MITE IS KNOWN FROM MEXICO CITY, MEXICO, AND THE UNITED STATES. IN THE UNITED STATES IT IS KNOWN FROM SOUTH CAROLINA TO FLORIDA. THE FOLLOWING COUNTIES ARE KNOWN TO BE INFESTED IN FLORIDA: ALACHUA, BAKER, BREVARD, BROWARD, DADE, DESOTO, GILCHRIST, HARDEE, HERNANDO, HIGHLANDS, HILLSBOROUGH, JEFFERSON, LAKE, LEE, MANATEE, MARION, MARTIN, ORANGE, OSCEOLA, PALM BEACH, PASCO, PINELLAS, POLK, ST. JOHNS, AND VOLUSIA COUNTIES.

CONTROL: THE INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES RECOMMENDS PHORATE (THIMET) 45.5% EC AT 1 PINT TO 100 GALLONS OF WATER; APPLY 1/2 PINT OF SOLUTION PER GALLON CONTAINER OR USE PHORATE (THIMET) 10% FORMULATIONS, A ROUNDED 1/2 TEASPOONFUL PER GALLON CONTAINER. WHEN APPLYING THE GRANULAR FORMULATION, LOOSEN CONTAINER SURFACE SOIL, DISTRIBUTE EVENLY OVER SURFACE AND MIX WITH UPPER 1 INCH OF SOIL. PLANTS MUST THEN BE WATERED. READ AND HEED LIMITATIONS AND PRECAUTIONS GIVEN ON MANUFACTURER'S LABEL.



LITERATURE CITED:

KEIFER, H. H. 1964. ERIOPHYID STUDIES B-12 CALIFORNIA DEPT. AGR., BUR. ENTOMOL. P. 9.