

THE MARIANA MITE, TETRANYCHUS MARIANAE MCGREGOR, IN FLORIDA
(TETRANYCHIDAE: ACARINA)¹

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INTRODUCTION: THE MARIANA MITE WAS ORIGINALLY COLLECTED ON MT. LASSO, TINIAN ISLAND (MARIANA GROUP) 12 JUNE 1946 (H. K. TOWNES), ON PASSIFLORA FOETIDA. THE MITE HAS SINCE BEEN FOUND IN FLORIDA PARTICULARLY ON SOLANACEOUS PLANTS DURING THE SPRING AND EARLY SUMMER MONTHS.

DISTRIBUTION: T. MARIANAE HAS BEEN TAKEN IN THE PACIFIC AREA FROM IWO-ARNO ATOLL, SAIPAN AND THE TINIAN ISLANDS. IT IS ALSO RECORDED FROM THE SOUTHERN UNITED STATES, CENTRAL AMERICA, AND SOUTH AMERICA. IN FLORIDA IT HAS BEEN RECORDED FROM THE FOLLOWING COUNTIES: ALACHUA, BROWARD, CHARLOTTE, DADE, HIGHLANDS, HILLSBOROUGH, INDIAN RIVER, JACKSON, MARION, MONROE, POLK, VOLUSIA, AND WALTON.

HOSTS: ALTHOUGH THIS MITE TENDS TO PREFER SOLANACEOUS PLANTS, IT HAS BEEN RECORDED FROM SEVERAL OTHER HOSTS. THE KNOWN HOSTS ARE AS FOLLOWS: CUPRESSUS SEMPERVIRENS, DIEFFENBACHIA PICTA, LAVANDULA SP., LYCOPERSICON ESCULENTUM, LYCOPERSICON SP., PELARGONIUM SP., SOLANUM MELONGENA, SOLANUM NIGRUM, SOLANUM TUBEROSUM AND TRIUMFETTA SEMITRILoba.

ECONOMIC IMPORTANCE: THIS RED SPIDER MITE HAS A HIGH BIOTIC POTENTIAL AND OFTEN REACHES HIGH POPULATIONS IN DRY WARM WEATHER AT WHICH TIME UNCONTROLLED POPULATIONS MAY HANG IN TAGS FROM THE PLANT PARTS GIVING THE PLANT A REDDISH COLOR. MITES CAUSE LEAVES, SUCH AS THE TOMATO LEAVES IN FIG. 1, TO BECOME CHLOROTIC AND CURL. FIG. 2 SHOWS A CLUSTER OF MITES ON A TOMATO STALK.

DESCRIPTION: THE BODY OF THE FEMALE IS ABOUT 400 μ LONG, IS ELLIPTICAL WITH 26 DORSAL SETAE WELL DEVELOPED AND LONGER THAN THE INTERVAL TO BASE OF NEXT POSTERIOR SETAE. THE MALE IS ABOUT 340 μ LONG WITH THE ANAL END TAPERING. SINCE THE FEMALE LOOKS SUPERFICIALLY LIKE MOST OTHER FEMALES OF THE GENUS TETRANYCHUS, IT WILL NOT BE ILLUSTRATED. THE MALE AEDEAGUS (FIG. 3) IS DIAGNOSTIC AND CAN BE USED TO SEPARATE THIS MITE FROM OTHER CLOSELY RELATED SPECIES.



FIG. 1. CHLOROTIC DAMAGE CAUSED BY MITE FEEDING ON TOMATO LEAVES.



FIG. 2. CLUSTER OF MITES ON TOMATO STALK.

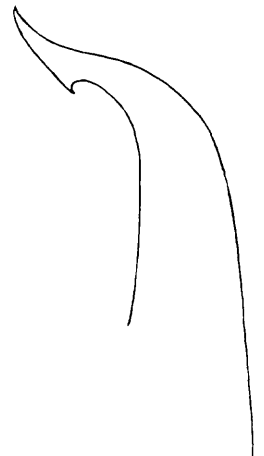


FIG. 3. MALE AEDEAGUS.

CONTROL: THE UNIVERSITY OF FLORIDA AGRICULTURAL EXTENSION SERVICE, IFAS, RECOMMENDS KELTHANE. FOLLOW THE DIRECTIONS ON THE LABEL.

LITERATURE CITED:

- MCGREGOR, E. A. 1950. MITES OF THE FAMILY TETRANYCHIDAE. AMER. MIDLAND NATUR. 44(2):291.
PRITCHARD, A. E. AND E. W. BAKER. 1955. A REVISION OF THE SPIDER MITE FAMILY TETRANYCHIDAE. PACIFIC COAST ENT. SOC. MEMOIRS SERIES II. 472 P.

¹ CONTRIBUTION No. 188, BUREAU OF ENTOMOLOGY.

