

TETRANYCHUS EVANSI BAKER AND PRITCHARD IN FLORIDA<sup>1</sup>

(ACARINA: TETRANYCHIDAE)

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INTRODUCTION: TETRANYCHUS EVANSI BAKER AND PRITCHARD (1960) HAS BEEN CONFUSED WITH T. MARIANAE (MCGREGOR). IT WAS MISIDENTIFIED BY MOUTIA (1958) AND DENMARK (1970). THE TWO SPECIES CAN BE SEPARATED SINCE THE MALE EMPEDIUM II RESEMBLES EMPEDIUM I IN T. EVANSI. THIS MITE IS FOUND ON SOLANACEOUS PLANTS DURING THE SPRING AND EARLY SUMMER MONTHS.

DISTRIBUTION: T. EVANSI WAS FIRST COLLECTED AT BELLE VUE HAREL, MAURITIUS, 10 MAY 1955 (L. A. MOUTIA), ON TOMATOES. 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, MANATEE, MARION, 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: AMARANTHUS RETROFLEXUS, CUPRESSUS SEMPERVIRENS, DIEFFENBACHIA PICTA, LYCOPERSICON ESCULENTUM, LYCOPERSICON SP., PELARGONIUM SP., SOLANUM MELONGENA, S. NIGRUM, S. TUBEROSUM, AND TRIUMFETTA SEMITRILoba.

ECONOMIC IMPORTANCE: THIS MITE HAS A HIGH BIOTIC POTENTIAL, AND POPULATION DENSITIES MAY RISE SHARPLY DURING DRY, WARM WEATHER. WHERE UNCONTROLLED POPULATIONS OCCUR, MITES MAY BE FOUND HANGING IN TAGS FROM PLANTS, 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.



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



FIG. 2. CLUSTER OF MITES ON TOMATO STALK.

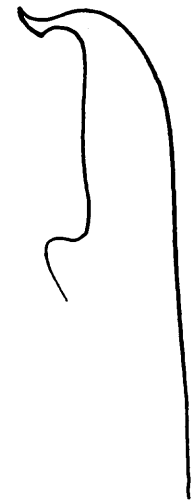


FIG. 3. MALE AEDEAGUS.

DESCRIPTION: FEMALE BODY LENGTH IS 510 $\mu$ ; GREATEST WIDTH OF BODY IS 287 $\mu$ . PALPUS WITH TERMINAL SENSILLUM ABOUT TWICE AS LONG AS BROAD. TIBIA I HAS 9 TACTILE AND 1 SENSORY SETAE; TARSUS I HAS FIRST PAIR OF DUPLEX SETAE APPROXIMATELY IN LINE WITH 4 TACTILE SETAE; EMPEDIUM I HAS MINUTE CLAW. THE MALE AEDEAGUS RESEMBLES THAT OF T. MARIANAE (MCGREGOR) IN THAT THE KNOB IS VERY SMALL AND FORMS A STRONG ANGLE WITH THE AXIS OF THE SHAFT (FIG. 3). THE 2 SPECIES DIFFER IN EMPEDIUM I AND II. T. MARIANAE EMPEDIUM I AND II ARE DIFFERENT, WHILE THEY ARE SIMILAR IN T. EVANSI.

<sup>1</sup> CONTRIBUTION No. 272, BUREAU OF ENTOMOLOGY

CONTROL: CONSULT THE INSECT CONTROL GUIDE OF THE INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES, UNIVERSITY OF FLORIDA, OR CONTACT YOUR COUNTY AGENT.

LITERATURE CITED:

- MOUTIA, L. ANDRE. 1958. CONTRIBUTION TO THE STUDY OF SOME PHYTOPHAGOUS ACARINA AND THEIR PREDATORS IN MAURITIUS. BULL. ENT. RES. 49: 59-75.
- BAKER, EDWARD W., AND A. EARL PRITCHARD. 1960. THE TETRANYCHOID MITES OF AFRICA. HILGARDIA 29(11): 540-543.
- DENMARK, H. A. 1970. THE MARIANA MITE, TETRANYCHUS MARIANAE MCGREGOR, IN FLORIDA (TETRANYCHIDAE: ACARINA). FLORIDA DEPT. AGRIC. AND CONS. SERV., DIV. PLANT IND., ENT. CIRC. 99.