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FLORIDA DEPARTMENT OF AGRICULTURE & CONSUMER SERVICE
DIVISION OF PLANT INDUSTRY

SUGARCANE BORER (DIATRAEA SACCHARALIS (FAB.)) ON PAMPAS GRASS IN FLORIDA (CRAMBIDAE: LEPIDOPTERA) 1/

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INTRODUCTION: CANES OF PAMPAS GRASS, CORTADERIA SELLOANA (SCHULT.) ASCHERS & GRAEBN., WERE FOUND INFESTED WITH SUGARCANE BORER BY J. N. POTT, PLANT SPECIALIST, DURING A VOLUSIA COUNTY NURSERY INSPECTION IN OCTOBER 1968. LARVAE OF SEVERAL INSTARS AND ALSO PUPAE WERE REMOVED FROM INFESTED CANES. A SURVEY CONDUCTED BY THE DPI WITH ENTOMOLOGISTS FROM THE CENTRAL FLORIDA EXPERIMENT STATION, SANFORD, AND THE USDA SUGARCANE RESEARCH UNIT, CANAL POINT, INDICATED A SEVERE INFESTATION IN THE NURSERY FIELD BLOCK. SOME PARASITES (BRACONIDAE; APANTELES SP.) OF THIS LEPIDOPTEROUS BORER WERE FOUND DURING THE SURVEY; HOWEVER, THE PARASITE POPULATION WAS NOT CONTROLLING THE INFESTATION. THE MOVEMENT OF ANY KNOWN HOST FROM THE VICINITY OF THE INFESTATION REQUIRED AN INSPECTION AND CERTIFICATION BY THE DPI.

DESCRIPTION: A DIAGRAMATIC SKETCH OF THE LATERAL ASPECT OF A CATERPILLAR HAS BEEN REPRODUCED WITH THE TERMINOLOGY OF A LEPIDOPTEROUS LARVA (FIG. 1). THE MATURE LARVA IS 22-26 MM IN LENGTH; HEAD AND CERVICAL SHIELD SHINY BROWN TO ALMOST BLACK; BODY SMOOTH WITH BROWNISH TO BLACKISH SCLEROTIZED PLATES AT BASE OF PRIMARY SETA IN FLORIDA SPECIMENS (FIG. 2). THE MANDIBLES (INNER ASPECT) WITH FOUR SHARP AND TWO ROUNDED DENTES (TEETH); WITH A TOOTHLIKE PROJECTION FOUND AT THE BASE OF THE FIRST TOOTH (FIG. 3). THE PRESPIRACULAR WART IS SCLEROTIZED AND IS NOT PROJECTED DORSALLY BEHIND THE SPIRACLE (FIG. 4). THE PROLEGS ON ABDOMINAL SEGMENTS 3, 4, 5 AND 6, HAVE THE CROCHETS (HOOKS) IN A COMPLETE CIRCLE (FIG. 5). THE DORSAL SETAL PATTERN OF ABDOMINAL SEGMENT 9 AND THE SURANAL PLATE ARE AS ILLUSTRATED (FIG. 6). SETA PARAPROCTALIS (S.PPR) STRONG (ABOUT THE SAME SIZE AS VII A) ON ANAL PROLEG (FIG. 7). THE ADULT IS A YELLOW-BROWN OR STRAW-COLORED MOTH WITH A WING EXPANSE OF ABOUT 1 1/4 INCH. VARIATIONS MAY OCCUR IN THE WING EXPANSE OF BOTH SEXES; THE MALE MAY BE 18-28 MM WHILE THE FEMALE IS 27-29 MM. DISTINCT DARKER RADIATING LINES OCCUR ON THE FOREWING OF BOTH SEXES; THE LINES APPEAR DOTTED ON SOME SPECIMENS. A LARGER BLACK DOT MAY BE PRESENT ABOUT THE CENTER OF THE FOREWING (FIG. 8).

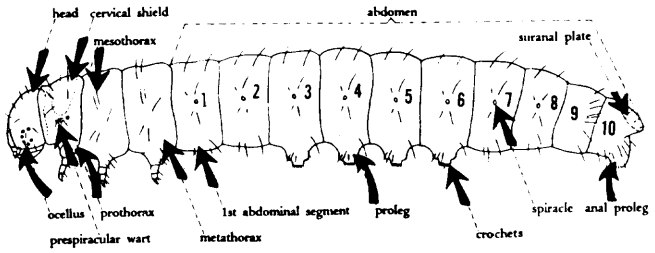


FIG. 1

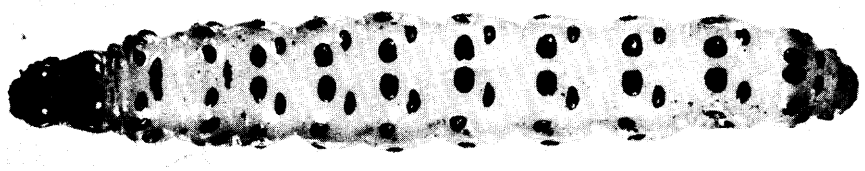
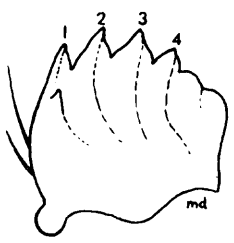


FIG. 2



TOOTHLIKE PROJECTION

FIG. 3

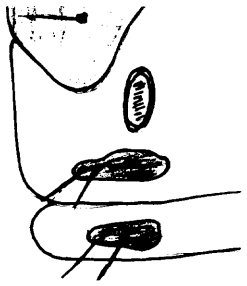


FIG. 4

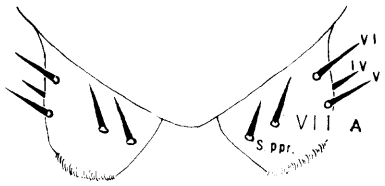


FIG. 7

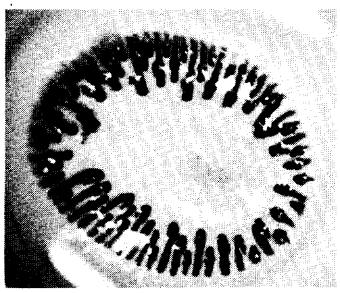


FIG. 5

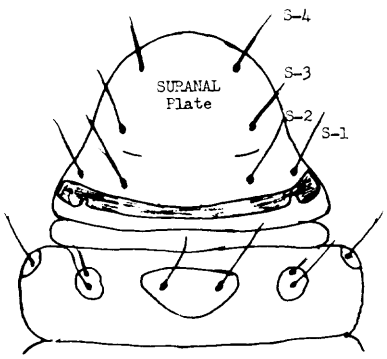
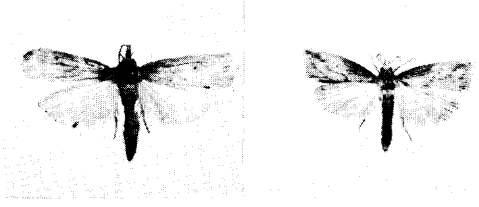


FIG. 6



A - ♀ B - ♂

FIG. 8

1/ CONTRIBUTION No. 204 BUREAU OF ENTOMOLOGY
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FIELD RECOGNITION: PAMPAS GRASS CANES INFESTED WITH SUGARCANE BORER CAN BE DISTINGUISHED FROM HEALTHY CANES IN THE FIELD. THE LEAF BLADES IN THE WHORL (OR GROWING POINT) OF INFESTED CANES APPEAR BLEACHED, CHLOROTIC AND STUNTED (FIG. 9). FOR INSPECTION IT IS NECESSARY TO REMOVE THE INFESTED CANE, AS CLOSE TO THE GROUND AS POSSIBLE WITH A VERY SHARP KNIFE. SPLITTING THE CANE CAREFULLY TO FIND LARVAE AND PUPAE IN THE CENTER OF THE CANE.

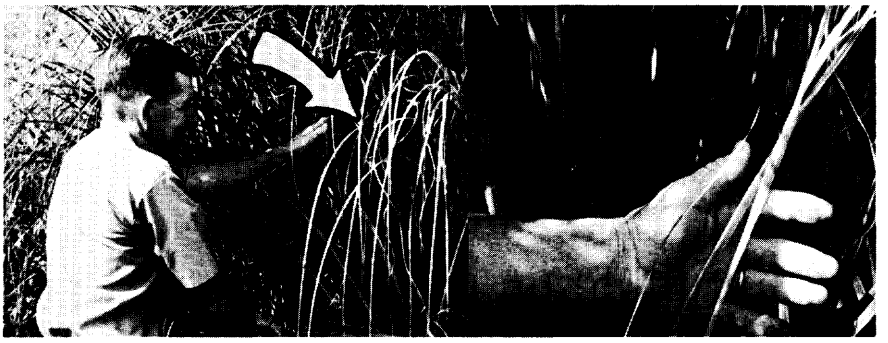

FIG. 9

ECONOMIC IMPORTANCE: PAMPAS GRASS IS USED AS AN ACCENT PLANT IN FLORIDA GARDENS, PARKWAYS, AND IN THE HOME LANDSCAPE PLAN. THE TRANSPORTATION OF CONTAINER OR B & B STOOLS OF PAMPAS GRASS FOR LANDSCAPE BEAUTIFICATION MAY RESULT IN THE DISTRIBUTION OF SUGARCANE BORER THROUGHOUT THE STATE OF FLORIDA.

CONTROL: DIAZINON 14% GRANULAR OR FURADAN 10% GRANULAR AT THE RATE OF 1 TABLESPOON PER STOOL. INCORPORATE GRANULES INTO THE UPPER INCH OF SOIL OR SPRINKLE ON FOLIAGE. GUTHION 22.2% LIQUID CONCENTRATE AT THE RATE OF 1 TEASPOON TO 1 GALLON OF WATER APPLIED TO EACH STOOL IS ALSO EFFECTIVE.

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