## **ENTOMOLOGY BULLETIN: NO. 50**

# Pest of Cocoa - Longicorn Tip Borer

J.E. Moxon, Senior Entomologist, Lowlands Agricultural Experimental Station, Keravat, East New Britain Province

#### INTRODUCTION

The Longicorn Tip Borer Oxymagis horni, is a minor pest of cocoa. The insect has been found only in North Solomons Province and Solomon Islands. Larvae of the beetle bore into the thin outer branches of cocoa to feed on the pith and sap wood. Leaves on the damaged branches turn brown and the branches die.

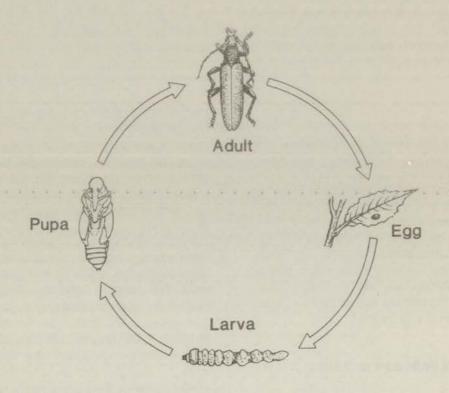
#### DESCRIPTION

The adult is medium brown, about 33 mm long and 8 mm wide. It has 6 long legs, long antennae about the length of the body, and wings which are covered by a wing case when at rest.

The larva has a creamy white body and dark brown head. It grows to about 60 mm long and 5 - 10 mm wide. The pupa is yellow brown. It is about 35 mm long and 5 mm wide.

### BIOLOGY

The female beetle lays eggs singly at the tip of the cocoa branches. The larva, on hatching, bores into the branch to feed on the wood. It tunnels down the centre of the branch for a distance of up to 3 metres and may make several side tunnels or exit holes to the bark surface. A wet, reddish-brown frass (chewed up wood and excreta) is pushed out of the exit holes onto the bark. The larva feeds inside the cocoa branch from 6 to 8 weeks. It then blocks off part of the tunnel to form a pupal chamber about 6 cm long, and pupates. Pupation take about 3 weeks. The adult, on emerging from the pupa, rests in the pupal chamber from 10 to 14 days before moving out to feed, mate and reproduce.



Life Cycle of the Longicorn Tip Borer.

#### **ECONOMIC IMPORTANCE**

Tip borer damage on mature cocoa is of no importance because a large tree can withstand much leaf loss before yield is affected. However, damage on young cocoa in the first two years of growth can be serious since the main pod bearing branches, and sometimes the trunk, can be attacked and killed.

CONTROL

It is necessary to control outbreaks of the pest in young cocoa blocks. You should also control the pest in mature cocoa blocks that are infilled with young cocoa. The pest can be controlled easily by pruning off infected branches to a point 30 cm below the lowest exit hole. The pruned branches must then be buried to kill larvae, pupae and newly emerged adults resting inside the prunings. It is recommended that pruning rounds be made every 4 days for 1 month and thereafter at 14 day intervals until the outbreak is controlled. This operation can be combined with other management practices to reduce costs.

#### **FURTHER INFORMATION**

For further information about insect control in cocoa, contact your nearest D.A.L. entomologist or didiman. Entomologists are based at:

RABAUL

Lowlands Agricultural Experiment Station Post Office Kerevat East New Britain Province Tel: 926251 or 926252

LAE
Bubia Agricultural Research Centre
P O Box 73
LAE, Morobe Province
Tel: 424933

KIMBE PNG O.P.R.A. Private Mail Bag KIMBE West New Britain Province Tel: 935203

PORT MORESBY
Department of Agriculture and Livestock
P O Box 417
KONEDOBU
Tel: 214699 Ext. 255

Copies of this Entomology Bulletin can be obtained from:

The Publications Officer
Publications Section
Department of Agriculture & Livestock
P O Box 417
KONEDOBU