

Euzophera ostricolorella Hulst (Lepidoptera, Phycitidae),
A Root Collar Borer of Tulip Tree

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The larval stage of lepidopterous borer, *Euzophera ostricolorella* Hulst, was found tunneling in the inner bark of the tulip tree at Lafayette, Indiana in 1960. The insect has previously been reported from New York south to Georgia and west to Kentucky. In Indiana, it has now been found in LaPorte, Marion, Dubois and Tippecanoe counties. The borer probably will eventually be found throughout the range of its host.

This insect has never been considered to be economically important but, in northern Indiana, a wood lot heavily stocked with yellow poplar has shown considerable dieback and mortality due to the attack of this insect. At least one shade tree in West Lafayette was severely damaged by this borer. The insect apparently is cyclic in its abundance and the present infestation may be the peak of its population cycle.

Notes on Life History

The adults emerge in the spring. In northern Indiana, the mature larvae, about one inch in length, and pupae were found early in May of 1961. In the fall of 1961, larvae and pupae were found in Dubois County. A cocoon is spun in the tunnel and pupation takes place with the head towards a nearby exit hole. When the adults emerge, the pupal case remains in the cocoon in the burrow. There apparently is only one generation in northern climes, while there are two generations farther south.

Description of Injury

Symptoms of attack by the tulip tree borer are difficult to detect. In infested trees, the bark just above the soil line appears to be loose and checked, with the appearance of having been burned. There is no frass extruded from the tunnels. Attacks are usually limited to two inches below and six inches above the soil line. Most of the tunnels are restricted to the soft phloem tissue. The walls of the tunnel and adjacent wood are stained a deep black color. The tunneling by the larvae provides avenues of entrance for various pathogens and the latter probably account for the demise of infested trees.

Small trees, 6 inches diameter at breast height, usually have only a few borers, while larger trees are attacked in much larger numbers.

Description of Larva

The mature larvae are about one inch long and a dull whitish color. The head is dark brown with the heavily chitinized areas almost black. The spiracles and anal shields are smoke brown.

Control

There is little information currently available about the control of this insect. Hays (1) in Kentucky, found that an oil solution of 0.5% BHC and 2% DDT was superior to the emulsion formulation.

An experimental control program is in progress at LaPorte, Indiana, where an oil solution of dieldrin is being evaluated. Preliminary evidence indicates that satisfactory control has been obtained.

Literature Cited

1. HAY, C. J. 1958. Life history and control of a root collar borer (*Euzophera ostri coloretta* Hulst) in yellow poplar. Jour. Econ. Ent. 51(2) : 251-252.