Grape IPM
Insect Identification Sheet No. 2
1984

grape cane gallmaker

Ampeloglypter sesostris (LeConte)

INTRODUCTION

The grape cane gallmaker is one of two *Ampeloglypter* species which can damage new shoot growth in the spring. This small snout beetle is apparently present throughout eastern and midwestern North America and has caused considerable injury in some areas during recent years. It has only one generation per year.

THE ADULTS

The reddish-brown adults are small, 3 mm long weevils with a distinctive curved snout (Fig. 1). Except for their color they look similar to the shiny-black adults of the grape cane girdler, *Ampeloglypter ater* LeConte. The grape cane gallmaker overwinters in the adult stage in debris on the ground. Egg-laying begins in May or June when shoots are from 25 to 50 cm long. In selecting an oviposition site, the female tends to avoid shoot nodes which will produce fruit clusters. In mid-summer adults begin to emerge from infested canes. Adult emergence continues through September.

THE EGGS

The female hollows out a small cavity just above a node. After placing a single egg into the cavity she fills it with frass. Then she proceeds to hollow out from 8 to 14 additional cavities in a straight line up the cane (Fig. 2). Only the first hole contains an egg. It is a yellowish-white color, oval in shape, and 0.6 mm long. The egg hatches after 7 to 10 days.

THE LARVAE

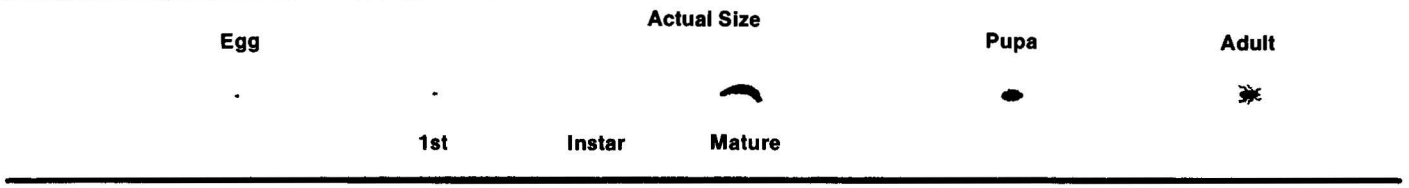
The cane swells in the area of the oviposition injury (Fig. 4). The young larva feeds on tissue surrounding the egg cavity. Later it feeds along the center of the shoot in the pith above or below the gall (Fig. 5). The mature larva is 10 mm long, legless, is a yellowish-white color, and has a light-brown head with dark mouth parts.

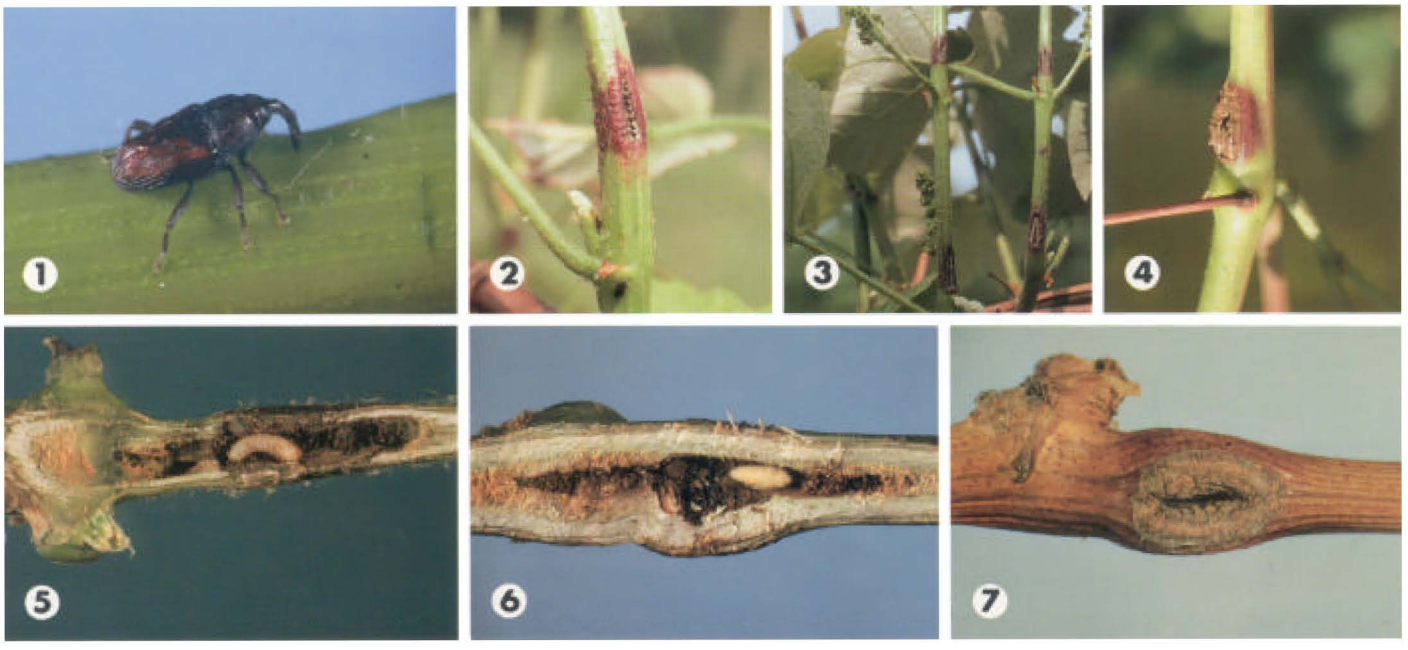
THE PUPAE

The larva pupates within the gall (Fig. 6). The pupa, which resembles the adult beetle with legs and snout clearly discernible, is light-colored but becomes dark just before it changes to an adult. The pupal stage lasts about 2 weeks.

INJURY

The gall-like swelling on the cane is caused by the oviposition injury and reaches full-size after 6 to 8





weeks. Galls are usually twice as thick as the cane and 2.5 to 4 cm long. They are found just above the nodes (Figs., 2, 3, & 4) and are of uniform shape except for a deep longitudinal scar on the side of the gall where the female made the egg cavity. On galls where beetles successfully completed development and emerged, a round exit hole can be found near the longitudinal scar (Fig. 7).

On varieties that produce dark-colored fruit, the bark and wood surrounding the injury turn reddish-purple (Figs. 2 & 3). On varieties with white or green fruit, this discoloration does not occur.

Galls apparently have little effect on vigor and growth of the vine but they can weaken the mechanical strength of the cane and cause breakage.

CONTROL

Except in some localized areas, the grape cane gallmaker is usually a minor problem. Since primarily vegetative nodes above the terminal fruit clusters are attacked, it is possible to prune out galls without affecting the crop. This will reduce the overwintering population provided galls are pruned out and destroyed before the adults emerge in August. In heavy infestations, it may be necessary to spray against the adults before they begin laying eggs in the spring. Materials recommended for control of the grape cane girdler are also effective against the grape cane gallmaker. Timing of sprays is similar for both species since adults are active at about the same time in the spring.

GUIDE TO STAGES

STAGE	TIMING	WHERE TO LOOK
Adult	Early Aug. until Sept.	Emerge from shoot galls.
Overwintering	Sept. until May of following year	Under fallen leaves and debris.
	Spring when temperatures rise above 15.5 C (60 F)	On the shoots.
Egg	Late May through June	Above terminal vegetative node in small cavity.
Larva	June through early Aug.	In shoot gall around oviposition injury.
Pupa	Mid-July through Aug.	In shoot gall.

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