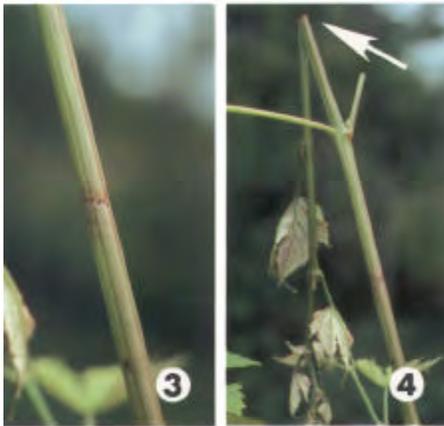


grape cane girdler

Ampelogypter ater LeConte



INTRODUCTION

The grape cane girdler is one of two *Ampelogypter* species which can attack new shoot growth in the spring. It has been reported from throughout the midwestern and eastern United States. Originally this species was described as feeding primarily on Virginia creeper, *Parthenocissus quinquefolia* (L.) Planch., but apparently has adapted quite well to cultivated grapes. Like the grape cane gallmaker, it has only one generation per year.

THE ADULTS

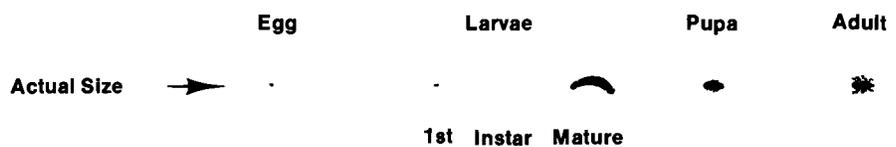
The shiny-black adults are small, 3 mm long weevils with a characteristic curved snout (Fig. 1). Except for their color they resemble the reddish-brown adults of the grape cane gallmaker, *Ampelogypter sesostris* (LeConte). The adult beetles emerge from infested canes during August and subsequently overwinter in trash on the ground. In May of the following year the adults leave their overwintering sites. When grape shoots are 30 to 50 cm long, usually in late May before grape bloom, the female begins to lay her eggs and girdle new canes. Egg-laying continues for about one month.

THE EGGS

The female hollows out a small cavity in the shoot, places a single egg into it (Fig. 2), and fills the egg cavity with frass. Then she proceeds to girdle the cane at two places: just below the egg cavity (Fig. 3) and several inches above (Fig. 4, arrow). The egg is elliptical, 0.7 mm long, and off-white. It takes about 10 days for the egg to hatch.

THE LARVAE

The fully-grown larva is white with a brown head, legless, and measures 8 mm in length. It burrows in the center of the shoot on either side of the egg cavity (Fig. 5). Larval development takes over a month. The shoot in which the larva feeds either breaks off at the girdled point or dies back to the first node below the egg cavity and drops to the ground.



THE PUPAE

The pupa forms within the dead shoot on the vine or on the ground. Development to the adult is completed after about two weeks. The pupa is light-colored but becomes darker just prior to emergence. Some of the adult features such as legs and snout are already clearly visible in the pupal stage (Fig. 6).

INJURY

The girdling by the female causes the terminal growth of the new shoots to bend over above the upper girdle and drop to the ground (Fig. 4). Later the whole infested shoot dies back to the lower girdle and falls from the vine (Fig. 7). Vines 'pruned' by the grape cane girdler have a ragged appearance suggesting serious

injury to the plant. However, the actual damage is usually minor. Girdling of the terminal growth has little or no effect on the crop unless fruit-producing nodes are close to attacked shoot tips.

CONTROL

Shoots injured by the grape cane girdler are quite conspicuous early in the season. Cutting off infested shoots below the lower girdle before the adults emerge in the summer and destroying them may help reduce the overwintering population. In severe infestations grape cane girdler adults should be controlled with special sprays before they begin laying eggs in the spring. Sprays applied against the grape flea beetle when the buds are swelling should also be helpful against the grape cane girdler.

GUIDE TO STAGES

STAGE	TIMING	WHERE TO LOOK
Adults Summer	Aug.	Emerge from infested shoots.
Overwintering	Sept. to May	In fallen leaves and debris in or near vineyard.
Eggs	May through June In June before bloom	On shoots. In egg cavity between two girdles on terminal shoot growth; note bent and dying terminals.
Larvae	June through July	Inside dying shoot terminals.
Pupae	Late July	Inside dead shoots on the vine or on the ground.