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THE RASPBERRY CROWN BORER

J. Raine[↓]

The raspberry crown borer² has been a pest of cane fruits in Canada for more than a century. It does not kill the bushes outright but gradually reduces the vigor and yield as the numbers build up. It attacks raspberry, loganberry, blackberry, boysenberry and other native cane fruits.

DESCRIPTION AND LIFE HISTORY

The moths look like wasps. They come out of the canes in August and September, mate the same day, and begin to lay eggs the next day. The eggs are oval and reddish brown. They are laid singly on the undersides of the leaves near the edges, usually only two or three to each plant.

The eggs hatch in September and October. The new larvae are about an eighth of an inch long, white with brown heads. They do not feed right away but instead crawl down to the bases of the canes, where they spend the winter inside tiny blisters on the canes just under the soil.

The following spring they burrow into the bark at the bases of the canes and destroy many new shoots arising from the crown. During the

¹Research Station, Vancouver, B.C.

²*Bembecia marginata* (Harris)

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summer they girdle the new canes near the ground. These canes develop galls at the base, become spindly, and often break off. By October the larvae are about three quarters of an inch long and are almost full grown. They stay in their burrows over a second winter and the next summer bore into the fleshy part of the crown. In July they tunnel upwards a few inches into the fruiting canes and pupate, leaving a thin layer of bark at the end of the tunnel. In August and September the pupae break through the thin layer of bark and work themselves part way out of the canes. The pupal cases then split and the moths come out.

CONTROL

Cut off canes having galls at their bases as close to the crowns as possible and kill any large larvae seen in their tunnels.

If more than 5 percent of the crowns are infested, apply a drench to the crowns to kill the tiny larvae overwintering in their blisters. Use 1 pint of 50 percent diazinon emulsible concentrate in 100 gallons of water. Apply the drench each year at the same time, either in early April when the new cane shoots first appear, or in October when the canes are bare.

On raspberries, which are usually planted close together, use a boom sprayer and apply *not less* than 250 gallons per acre. Use a single T8030 nozzle directed toward the crown, set the pump pressure at 150 pounds per square inch, keep the forward speed at two miles per hour, and spray both sides of the row.

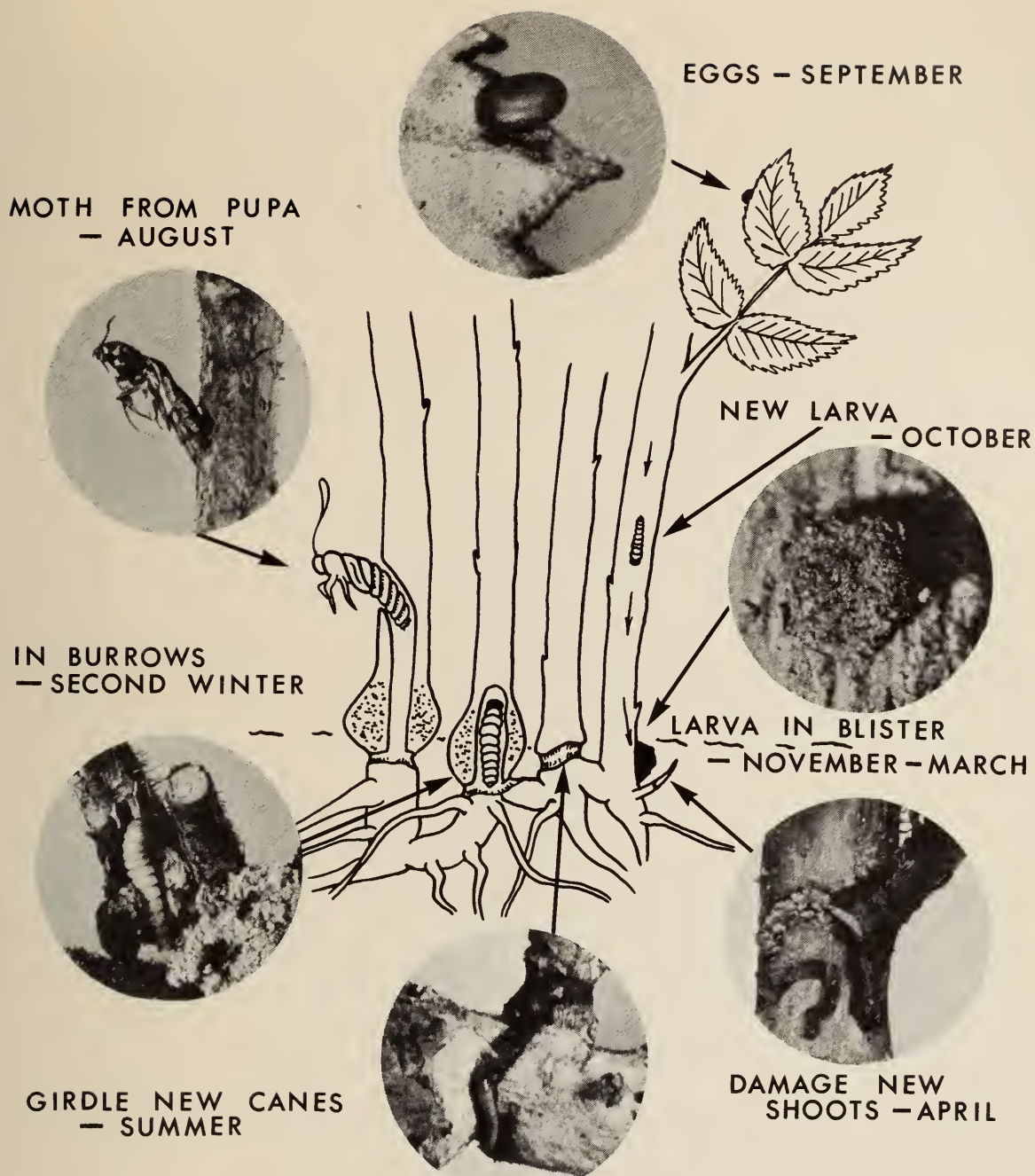
On loganberries, blackberries and boysenberries, which are usually planted much further apart than raspberries, use a hand gun and apply one pint of spray to each crown.

The drenches are effective only against the small, first-year larvae. The older larvae mature, change to moths and reinfest plantings. For this reason infested plantings should be treated for at least two years running. New plants are very susceptible to attack, and should be sprayed for several years until they become well established.

Home garden formulations of diazinon emulsible concentrate usually contain only 12.5 percent poisonous ingredient. Use this formulation at 2 tablespoons per gallon of water and sprinkle one pint of the mixture on each crown using a sprinkling can.

CAUTION

Follow closely all the warnings listed on the insecticide label.



Life history of the raspberry crown borer.

MORE INFORMATION

For more information consult your agricultural representative or provincial entomologist, or write to the Research Station, Canada Department of Agriculture, 6660 N.W. Marine Drive, Vancouver 8, B.C.

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