CODLING MOTH  Lepidoptera: Tortricidae  Cydia pomonella

DESCRIPTION

Adult wings are usually gray or brownish-gray with dark bands, a dark brown spot, and usually marked with two irregular copper lines near the tip of each forewing. There also is a gold or bronze spot at the tip of the forewings. Adults have a wingspan of about 18 mm. Mature larvae are about 18 mm long, pinkish-white with a brown head.

ECONOMIC IMPORTANCE

This pest is one of the most damaging insects of apples and pears. Larvae feed in the fruit, primarily around the seeds, resulting in unmarketable fruit. Small larvae often cause surface blemishes ("stings") on apples when they feed on the surface of the fruit. This insect also attacks crab apple, hawthorn, and some ornamental trees.

DISTRIBUTION AND LIFE HISTORY

This pest is widely distributed throughout all apple and pear growing areas of North America. The codling moth overwinters as a mature larva in a cocoon under loose bark on trees or in other protected places. In the spring, the larvae pupate and emerge as adults from early April to late May. Moths deposit eggs on foliage and small fruit starting two to three days after they emerge, and continue laying eggs at irregular intervals for a month. Eggs hatch in 12 to 14 days and larvae enter fruit through the calyx end or where two fruits touch. Larvae remain near the surface for a few days, then burrow to the center of the fruit. Larvae feed for about three weeks, then tunnel out of the fruit and pupate in protected places. Adults of the second generation begin emerging one to two weeks later in early July. Eggs from the second-generation moths are laid on the fruit during July and August. Eggs hatch in six to seven days and larvae enter fruit and feed as before. Larvae remain in the fruit for more than a month in the fall before emerging and seeking a suitable overwintering site. The number of generations per year varies from 1 1/2 to 3 in the northwest.

MANAGEMENT AND CONTROL

Unkept orchards or abandoned trees are a constant source of reinfestation. Thorough clean-up of the orchard may help reduce the number of overwintering larvae. Severe winter temperatures and cool weather in the spring can reduce the seriousness of this pest. The use of insecticides is an effective method to prevent damage by this pest. See the Pacific Northwest Insect Control Handbook for registered insecticides. Pheromone traps are used to monitor emergence of males so that application of insecticides will coincide with major flights of adults. Using pheromones to disrupt mating also is an effective method of reducing codling moth populations. If insecticides are used, they must be selected and applied carefully to avoid upsetting mite predator populations, which may result in outbreaks of spider mites.