
FRUITTREE LEAFROLLER ON ORNAMENTAL AND FRUIT TREES

Integrated Pest Management for the Home Gardener

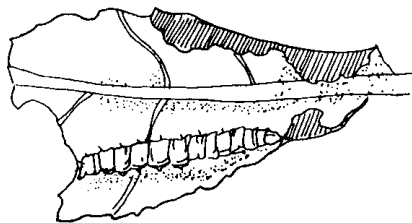


Figure 1. Fruittree leafroller

Fruittree leafroller, *Archips argyrospila* (Fig. 1), can be a serious pest throughout California. It occurs on a very large number of ornamental trees and is particularly damaging to deciduous and live oaks. This leafroller also is found on ash, birch, California buckeye, box elder, elm, locust, maple, poplar, rose, and willow. It attacks numerous fruit and nut trees, including almond, apple, apricot, caneberries, cherry, citrus, pear, plum, prune, quince, and walnut.

DESCRIPTION

Fruittree leafroller goes through four stages of development: egg, larva (or caterpillar), pupa, and adult (or moth). The eggs are laid in irregular flat masses primarily on twigs and smaller branches. The egg mass is coated with a dark gray or brown cement that bleaches and later turns white; this covering becomes perforated (pinholes) in spring as the larvae hatch and emerge through it.

A newly hatched larva is entirely green except for a black head and small hard plate just behind the head. As the larva matures, its head turns dark brown and the plate becomes a

tan to olive-green color. At maturity the larvae are $\frac{3}{4}$ to 1 inch long. They wriggle vigorously when disturbed, and often drop to the ground on a silken thread. The pupa is just under $\frac{1}{2}$ inch long, light to dark brown, and is usually formed within the rolled leaf. Silk webbing lines the area around the pupa.

The adult moth has a wing span of $\frac{5}{8}$ to $\frac{7}{8}$ inch. Like other leafrollers, its wings have a bell-shaped outline when viewed from above. The forewings are mottled shades of brown and tan with gold-colored flecks, while the hind wings are whitish to gray.

LIFE HISTORY

Fruittree leafroller overwinters as an egg. Eggs hatch into tiny larvae in spring from March to as late as mid-May in cooler areas. Larvae feed on leaves for about 30 days and then pupate in a loose cocoon formed in a rolled leaf or similar shelter. Eight to 11 days later the adult emerges from the pupa. The moths live only about a week, during which time they mate and lay eggs. They fly from May to June in various localities, and in any one area the flight usually lasts about 3 weeks. Only one generation occurs each year.

DAMAGE

The larvae feed on tender new leaves, giving them a ragged appearance. Leaves are rolled and tied together with silken threads so as to form compact hiding places. Some years very large populations develop. In severe cases trees may be partially or com-

pletely defoliated with numerous silken threads covering the entire tree and the ground below. Also, larvae frequently drop to the ground on their silken threads and may defoliate grass or other plants beneath the trees. Even if completely defoliated, however, trees that are otherwise healthy can be expected to recover.

Oaks in the Central Valley can be particularly hard hit. Some people mistake fruittree leafroller for California oakworm because of its prevalence on oaks. However, oakworm is a more serious pest in coastal areas while fruittree leafroller does the bulk of the defoliation damage to oaks in the Central Valley. The two caterpillars are easy to distinguish: fruittree leafroller is green with a black head, and California oakworm has yellow, black, and gray stripes on its side and a large brown head. (For more information, see *Pest Notes: California Oakworm*, listed in the References section.)

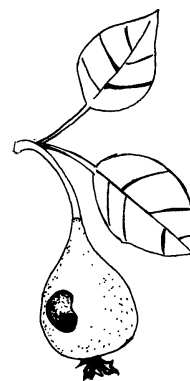


Figure 2. Leafroller damage to young fruit.

PEST NOTES

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For more information contact the University of California Cooperative Extension or agricultural commissioner's office in your county. See your phone book for addresses and phone numbers.

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WARNING ON THE USE OF CHEMICALS

Pesticides are poisonous. Always read and carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in the original labeled containers in a locked cabinet or shed, away from food or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

Confine chemicals to the property being treated. Avoid drift onto neighboring properties, especially gardens containing fruits and/or vegetables ready to be picked.

Dispose of empty containers carefully. Follow label instructions for disposal. Never reuse the containers. Make sure empty containers are not accessible to children or animals. Never dispose of containers where they may contaminate water supplies or natural waterways. Do not pour down sink or toilet. Consult your county agricultural commissioner for correct ways of disposing of excess pesticides. Never burn pesticide containers.

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