



# Entomological Notes

Department of Entomology

## EUROPEAN FRUIT LECANIUM

*Parthenolecanium corni* (Bouché)

The European fruit lecanium is a key soft scale insect pest of shade trees and other woody ornamental plants in Pennsylvania. This species feeds on a wide range of host plants. Populations of this pest build up quickly so monitoring for this pest on potential host plants is important.

### DESCRIPTION

The nymphal stage of this pest is flat, spindle-shaped, and brown. Females are approximately 3 mm, hemispherical to oval, convex, smooth, shiny brown or reddish brown (Fig. 1). They sometimes are covered with a fine white powder. The male's waxy cover is almost transparent, smaller, flatter, and elongate with ridges down the back. Adult males are small, delicate, clear-winged, fly-like insects with only one pair of wings. They die after mating. Accurate identification of this pest that's based solely on the external waxy cover is difficult since this species varies widely in shape and form depending upon the host plant on which it's developing.

### LIFE HISTORY

This species overwinters as second instar nymphs on the bark of host plants, usually on twigs or smaller branches. Early in the spring, they begin to feed and by mid-May are mature. When mature, males emerge and mate with the females. During late May or early June, females lay minute white eggs beneath their bodies. Each female is reported to lay from 940 to 3,142 eggs, depending upon the host plant. The eggs hatch in 20-30 days into crawlers that move to the lower leaf surface near the veins, and start to feed. These nymphs remain there until August, and then migrate to the bark of small branches where they spend the winter. One generation is usually produced each year in Pennsylvania.

### DAMAGE

Heavy scale infestations may frequently build up on the lower leaf surface. Feeding damage may cause curled, chlorotic (yellow) foliage that may drop prematurely. Smaller infested branches are weakened due to feeding injury or in some cases may be killed. Also, when this soft scale species is feeding on leaves and twigs, a large quantity of honeydew (sticky, sugar-rich substance) is

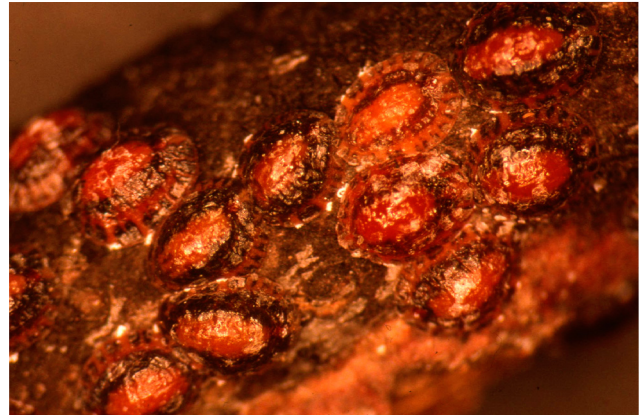


Image by Greg Hoover  
Penn State University

Figure 1. European fruit lecanium females on a twig.

secreted. Honeydew is a substrate on which a black sooty mold grows that may impart a blackened appearance to the foliage, twigs, branches, and any other surface beneath an infested plant. An abundance of sooty mold may interfere with a plant's food making process (photosynthesis).

### MANAGEMENT

This soft scale insect pest has more than 40 species of natural enemies. Overwintering second instar nymphs may be managed with a dormant application of horticultural oil applied according to label directions in early spring before new growth occurs and after the danger of freezing nights has passed.

Crawlers may be effectively managed by applying a registered insecticide according to label directions from mid-June through mid-July. In order to achieve population reduction of this pest, examine infested trees frequently to determine when crawlers are hatching from the eggs. Soil injection or drenching with a registered systemic insecticide labeled for management of this pest may also be applied according to label directions. Early spring application of these registered formulations usually works best against this species when sufficient soil moisture exists. Prior to applying one of these systemic products, applicators may need to irrigate around an infested plant to provide adequate soil moisture.

## WARNING

Pesticides are poisonous. Read and follow directions and safety precautions on labels. Handle carefully and store in original labeled containers out of the reach of children, pets, and livestock. Dispose of empty containers right away, in a safe manner and place. Do not contaminate forage, streams, or ponds.

Gregory A. Hoover  
Sr. Extension Associate  
Dept. of Entomology  
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