

Forest Pest Bulletin



SOUTH DAKOTA
DEPARTMENT OF AGRICULTURE
DIVISION OF RESOURCE
CONSERVATION & FORESTRY



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CANKERWORMS

CAUSAL AGENT

Alsophila pometaria (Fall Cankerworm)

Paleacrita vernata (Spring Cankerworm)

HOSTS

Cankerworms prefer Elm (*Ulmus* spp.), Apple (*Malus* spp.), and Honey locust (*Gleditsia triacanthos*). Maples (*Acer* spp.), Ashes (*Fraxinus* spp.), Cherries (*Prunus* spp.), and Oaks (*Quercus* spp.) are also attacked.

SYMPTOMS

In spring and early summer, the presence of feeding damage and larvae, known as caterpillars or inchworms, are the best indicators of large populations of either species. Feeding damage starts on buds and expanding leaves as BB-sized holes (Fig. 1). The caterpillars later expand their feeding to entire leaves, leaving just the large veins. This is called skeletonizing.



Figure 1. Feeding Damage from larvae. Tim Tigner, Virginia Department of Forestry, www.forestryimages.org

LIFE CYCLE

Larvae of both species hatch in early May when leaves emerge, reaching 1 inch in length at maturity. Fall Cankerworm larvae vary in color from light green to black with light yellow lines on the sides and a dark dorsal stripe (Fig. 2). Spring Cankerworm larvae range in color from yellowish green to brownish black.



Figure 2. Fall cankerworm larvae. John H. Ghent, USDA Forest Service, www.forestryimages.org



Figure 3. Spring cankerworm larvae. James B. Hanson, USDA Forest Service, www.forestryimages.org

The head is light and mottled with a white lengthwise stripe (Fig. 3).

Larvae mature in about 5-6 weeks. By mid-June they drop to the ground to pupate. Larvae dropping from trees on silk strands are blown about by the wind and can be annoying to passersby.

Fall Cankerworms pupate underground. Adults emerge only after freezing weather. Females are wingless, so they climb the nearest tree and lay about 100 brownish-green flowerpot shaped eggs in uniform rows on the twigs (Fig. 4). The eggs overwinter.



Figure 4. Female fall cankerworm laying eggs.
John H. Ghent, USDA Forest Service,
www.forestryimages.org

Spring Cankerworms larvae overwinter in the soil. During late winter they pupate. Adults emerge in March or April, mate, and females, wingless, climb the trees to lay about 100 pearly yellow eggs in loose clusters in bark crevices and under bark scales. The eggs are not easily seen.

MANAGEMENT

Adult females can be trapped as they climb the tree to lay their eggs by applying a sticky band to each tree trunk in the spring months of April and May and the fall month of October. Bands should be made of tarpaper, canvas, or other heavy cloth strips, 4-6 inches wide and covered with a sticky material (Fig. 5). Bands should be placed about 6-7 feet above the ground or below the first branch. Do not scrape the bark smooth, plug holes under the band with cotton or cloth wads to prevent moths from crawling underneath. Bands can be removed in June



Figure 5. Example of a sticky band.
William A. Carothers, USDA Forest Service,
www.forestryimages.org

Treat trees with *Bacillus thuringiensis-kurstaki*, Cyhalothrin, or Permethrin when leaves are fully expanded, and the larvae are beginning to feed.

Due to numerous pesticide labels and/or label changes, be sure the product label includes the intended use prior to purchase or use. Please read and follow all pesticide label instructions and wear the protective equipment required. Spraying pesticides overhead increases the risk of exposure to the applicator and increases the likelihood of drift to non-target areas. Consider the use of a commercial applicator when spraying large trees due to the added risk of exposure and equipment needs. The mention of a specific product name does not constitute endorsement of that product by the South Dakota Department of Agriculture.

For further information contact your nearest South Dakota Division of Resource Conservation and Forestry office. Hot Springs 605-745-5820; Lead 605-584-2300; Mitchell 605-995-8189; Pierre 605-773-3623; Rapid City 605-394-2395; Sioux Falls 605-362-2830; Watertown 605-882-5367.

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