The forest tent caterpillar, *Malacosoma disstria*, is a native defoliator of a wide variety of hardwood trees and shrubs and can be found throughout the range of all hardwood forests in North America. The caterpillars are often mistakenly called armyworms due to the way they move in large groups. Caterpillars feed primarily on aspen, birch, basswood, and oak.

**Life Cycle and Identification**

Forest tent caterpillars hatch from egg masses in early to mid-May when aspen leaves begin to open. They feed on aspen and many other deciduous trees for five to six weeks. Despite their common name, forest tent caterpillars do not make tents, but create inconspicuous silken mats on tree trunks and branches where caterpillars cluster to rest. As the caterpillars grow they consume increasing amounts of leaves, and will wander widely in search of more food. Considerable damage to foliage can occur on host trees as well as nearby vegetation. While defoliation generally does not result in tree death, it weakens trees and makes them vulnerable to disease and other insects that may eventually kill the tree.

Mature caterpillars are hairy and velvety-black with blue stripes on their sides. A row of yellow keyhole-shaped markings runs along the top of the body. By mid-June, full-grown caterpillars wander from trees where they have been feeding to find sheltered places to form pupae inside silken cocoons.

Adult moths emerge from cocoons 10 days to two weeks after pupae are formed. The yellowish-brown adults fly at night and are attracted to lights in large numbers. They may be carried for miles by strong winds. Females deposit eggs mainly on upper crown branches in masses of 100 to 350 that encircle small twigs. Eggs are coated with a frothy, glue-like substance that hardens and turns a glossy dark brown. The eggs overwinter, and larvae hatch the following spring.

**Look-alikes**

There are many types of caterpillars that can be mistaken for forest tent caterpillar. The following information will help to identify which is feeding on your trees.

**Outbreaks**

In Minnesota, outbreaks of forest tent caterpillar develop every 10 to 16 years and can last from three to seven years. During the peak of an outbreak, caterpillars can number from 1 to 4 million per acre. As caterpillars wander in search of food or places to pupate from late May to mid-June, they become a nuisance to people living or vacationing in forested areas. Their cocoons are also a nuisance as they can be very difficult to remove from the sides of buildings. Thousands of crushed caterpillars on roads and sidewalks can cause surfaces to become slippery.

In the west-central counties of Minnesota, forest tent caterpillar populations may synchronize with northern outbreaks or they may have small, localized outbreaks that pop up and collapse quickly. These outbreaks occur in oak, basswood, and aspen, along lakeshores and woodlands and cover a relatively low number of acres.
Management of forest tent caterpillar for the homeowner can be accomplished in two ways: mechanically or chemically. Mechanical control of forest tent caterpillar is control by hand. Where practical, remove egg masses from small trees before the eggs hatch in early spring. Brush caterpillars and cocoons off houses and outdoor furniture with a stiff broom or brush or knock them down with a forceful spray of water. Avoid crushing caterpillars or cocoons on painted surfaces, as they may cause a stain if smeared.

Insecticide treatments are most effective against defoliation when applied while the caterpillars are small. Treatment becomes less effective as caterpillars reach 1 inch in length. In addition, the damage to trees has already been done. *Bacillus thuringiensis var. kurstaki* is a biological insecticide made from a bacterium that occurs naturally in the soil and is very effective against caterpillars without harming beneficial insects. Insecticidal soaps may also be used against forest tent caterpillar while conserving beneficial insects.

To minimize the nuisance of caterpillars crawling on houses and buildings, an insecticide labeled for this use can be effective. Treat only the outsides of buildings and follow label directions carefully. Do not repeat spray treatments more often than what is instructed on the label. Information on other insecticides for caterpillar control available to homeowners can be found by searching forest tent caterpillar at [www.extension.umn.edu](http://www.extension.umn.edu).

### Management for Woodlots
Since forest tent caterpillar has such a wide host range, silvicultural options for management are severely limited. Forestry practices such as thinning and pruning are not used in forest tent caterpillar management. Thinning during defoliation increases stress in the remaining trees and can lead to high levels of mortality in the thinned stand. Oak and birch are particularly vulnerable. It is preferable to wait an additional growing season after the outbreak ends before doing any stand thinning.

Silvicultural actions are limited to planting non-host species such as red maple or conifers. In general, management options are limited to the acceptance of the growth loss and nuisance or to the improvement of tree vigor so that secondary pests do not attack the weakened trees. The use of insecticide treatments is usually limited to shade trees. Private landowners and resort owners may justify spraying insecticides to protect trees from defoliation or to reduce the nuisance caused by caterpillars during late May and early June. In making this decision, landowners are encouraged to consider their goals, neighbor’s rights, environmental concerns, and their ability to pay for the treatment. It is difficult to achieve satisfactory results with insecticides on areas less than 10 acres or where less than 80 percent of the forested area will be treated.

The DNR provides technical advice to landowners and landowner groups interested in undertaking forest tent caterpillar control actions, but does not oversee or manage them. Forest tent caterpillars are native insects that have evolved with Minnesota’s forests and are an important part of the ecosystem. They rarely cause severe damage to trees, so forests do not normally need pesticide protection. Natural controls cause the collapse of populations, keeping populations low until the next outbreak cycle is repeated.