

Background

Aspen groves are common and can be found throughout the Rocky Mountains in North America. These groves are generally established after a disturbance to the existing forest. The most common disturbance is stand replacing fire. If an aspen grove is located near the newly cleared area, it is capable of spreading via sprouts from rhizomes and establishing rather quickly. When fire burns through an area it can stimulate aspen suckers; however with or without fire, aspen groves can be replaced by more shade-tolerant conifers. Aspen forests are cool, moist microclimates in which seeds of conifers can begin to grow.

Aspens are prone to insects, diseases, game grazing, even drought and wind damage. One of the more common insects that feed on aspen, as well as other various deciduous trees and shrubs, is the western forest tent caterpillar. Western forest tent caterpillars, *Malacosoma californicum*, appear in the spring with their tentlike structures webbed in the tree's canopy.

Life Cycle

Western tent caterpillars spend the winter in egg masses that are securely attached to host trees. Not long after bud break, the caterpillars emerge, move to crutches of branches and begin to create a mass of dense silk (Fig. 1). This mass of silk is used to provide shelter to the developing insects. These young larvae will leave the tent to feed and return to the tent for protection. By late spring these caterpillars have reached maturity and will wander from the tent to spin their cocoon in which to pupate. Cocoons can be found on various objects in the landscape including trees, houses, vehicles, rocks, etc. About two weeks later adult moths will emerge. These moths will then mate, and the female will lay a single egg mass. There is only one generation produced per year.

Control

Regularly inspect landscape plants around your property and determine if the level of defoliation warrants treatment. The tents they create can be removed to reduce population size and loss of defoliation. It is best to remove the tents while the caterpillars are congregated in them. In warmer climates the caterpillars tend to feed during the night and congregate in the tents during the day. You may also choose to spray with B.t. (*Bacillus thuringiensis*), a microbial insecticide. When applied properly, B.t. is an effective insecticide.

In forest and woodland areas, trees are not in serious danger from these caterpillars. They may look shabby for a bit but will most likely re-foliate by the end of the season. Most mature trees can withstand defoliation for a few seasons, sustaining only some growth loss. Aspen



Figure 1. Mass of dense silk created by larva.

bark contains chlorophyll and is able to photosynthesize even if all leaves are gone. Bark chlorophyll cannot support tree growth but can help survival during a defoliation period. Trees that are already stressed due to other factors, such as drought, may endure more damage including limb dieback or mortality.



**In collaboration with the
New Mexico State Forestry**

For More Information about Western Forest Tent Caterpillar contact:

State and Private Land:

New Mexico
NMSU Extension Forest Health
EMNRD Forestry Division
P.O. Box 5
Ute Park, NM 87749
Telephone: (505) 376-2204

Arizona
Arizona State Land Department
Division of Forestry
1616 West Adams, Rm. 100
Phoenix, AZ 85007
Telephone: (602) 542-2517

Federal Land:

New Mexico
USDA Forest Service
Forest Health, NM Zone Office
333 Broadway Blvd. SE
Albuquerque, NM 87102
Telephone: (505) 842-3286

Arizona
USDA Forest Service
Forest Health AZ Zone Office
SW Forest Science Complex
2500 S. Pine Knoll Drive
Flagstaff, AZ 86001
Telephone: (928) 556-2073

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.