LEAF-CHEWING CATERPILLARS

(Lepidoptera Order–Moths)


DESCRIPTION
Caterpillars belong to the insect order Lepidoptera. Caterpillars are the larval stage of moths and are among the most serious defoliators of trees. One example is the eastern tent caterpillar Malacosoma americanum, responsible for defoliating forest trees, as well as cherry, apple and other ornamental shade trees. Other Lepidoptera pests include the gypsy moth, winter moth, spring and fall cankerworm, bagworm, clear wing borers, pine tip moth and tussock moth. Some moth larvae, such as tip moths and clear wing borers, feed inside the twigs, shoots or trunk of the tree and are virtually unseen.

PHOTOS
A. Gypsy moth caterpillar (*Lymantria dispar*)
B. Eastern tent caterpillars (*Malacosoma americanum*)

SYMPTOMS
For leaf-chewing caterpillars, the obvious symptom is skeletonized or mostly consumed leaves. The caterpillar itself can often be visibly observed feeding on the leaf tissue. For moth larvae which bore into the shoot, twig or trunk, symptoms will include brown stunted tips, branch dieback and exit holes in the trunk.

TREATMENT
Arborjet recommends a well-timed trunk injection of ACE-jet. It may be applied either as a micro-infusion with the TREE I.V. or a micro-injection with the QUIK-jet.

The ACE-jet is highly water soluble and moves easily through the tree’s vascular system. It is a fast-acting “quick knock down” product for eliminating the pest population in a tree. It breaks down quickly in the tree to nitrogen, phosphorus and sulfur, resulting in the subsequent greening of foliage. ACE-jet comes in a soluble granular form to maintain maximum potency until it is ready to be used.

PHOTOS
A. Gypsy moth caterpillar (*Lymantria dispar*)
B. Eastern tent caterpillars (*Malacosoma americanum*)

Photo A taken by: USDA Forest Service - Region 8 - Southern Archive, USDA Forest Service, Bugwood.org

Photo B taken by: Gerald J. Lenhard, Louisiana State Univ, Bugwood.org
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WHEN TO TREAT
Monitor trees for injury by caterpillars, often seen as pin holes or notching in the leaf. Apply ACE-jet as soon as symptoms of injury, or as the caterpillars themselves, become visible. Depending on species, infestations occur in spring or early summer. Timing is important as the ACE-jet will only remain active in the tree for three to five weeks. Caterpillars feeding on foliage and tips of twigs are susceptible to ACE-jet treatments.

Generally, the best seasons for injection are fall and spring, since uptake occurs when trees are transpiring. The environmental conditions that favor uptake are adequate soil moisture and relatively high humidity. Soil temperature should be above 40°F for trunk injection. Hot weather or dry soil conditions will result in a reduced rate of uptake so trees should be watered thoroughly if applications are made when soil is extremely dry. If treating trees in the summer, inject in the morning for the quickest uptake. Tree health will also affect treatment efficacy, so assess tree health prior to treating. For example, a declining tree (>50% canopy dieback) is a poor candidate for treatment.

Use ACE-jet in early spring, before buds break when caterpillar outbreaks are expected. Alternatively, treat when injury to leaves first appears, or caterpillars are first observed. One application is sufficient to control these caterpillars, as ACE-jet remains active to protect the tree canopy for approximately 3 – 5 weeks.

WHAT TO EXPECT AFTER TREATMENT
ACE-jet applied during tree transpiration will uptake very quickly and caterpillars will die rapidly. Trees may also appear greener and healthier as ACE-jet breaks down into elements which can be utilized as nutrition by the tree. Annual monitoring is required to determine need for retreatment.

WRONG FORMULATIONS

For treatment of leaf-chewing caterpillars use ACE-jet.

ACE-jet is a fast acting, broad spectrum pesticide effective against caterpillars, aphids, leafminers, scale, adelgids, thrips, boring beetles and spider mites.

ACE-jet will also produce a beneficial health response in the tree as it metabolizes into utilizable elements phosphorous and sulfur.

Our products can be purchased online at www.arborjet.com or at your local Arborjet distributor.

QUICK-JET INJECTION

TREE I.V. INJECTION