

WINTER MOTH

(Operophtera brumata)

http://www.arborjet.com/index.php/post/winter_moth

DESCRIPTION

Winter Moth, an invasive pest introduced from Europe and the Near East, causes severe defoliation of hardwood trees. Winter Moth is appropriately named, as adult moths are generally active from November through January. The larvae begin feeding early on developing leaves; severe infestations will cause noticeable tree defoliation. In June, they drop to the ground to pupate in the soil until the fall. Canadian research has shown that four consecutive years of defoliation can ultimately lead to tree mortality.

SYMPTOMS

Early detection of Winter Moth is difficult, as the first instar larvae begin feeding while the pre-formed leaf is still in the bud. The first symptoms will be visible only after buds break and leaves unfurl, revealing small feeding holes in the leaves; at this point, the larvae are still generally too small to be seen. Over the early weeks of the spring, the feeding damage on the leaf will become more obvious and the caterpillars may grow to a visible size. The caterpillars may also be seen descending from the canopy on silken threads. Extensive populations of Winter Moth can cause severe defoliation of the tree.

TREATMENT

Arborjet recommends a well-timed injection of ACE-jet using either the TREE I.V. or QUIK-jet. ACE-jet should be applied when the larvae are actively feeding. ACE-jet moves quickly and easily to the leaves, and provides rapid control.

PHOTOS

A: Larval stage Winter Moth (caterpillar)

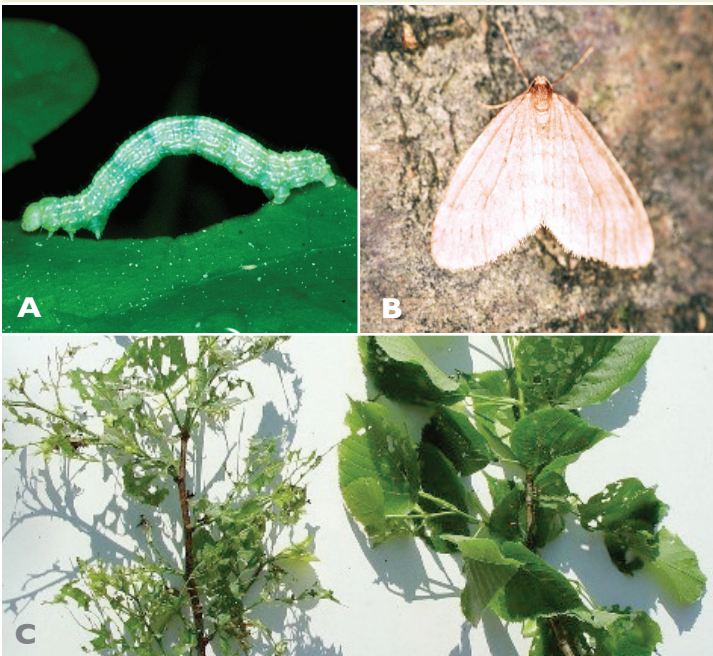
B: Adult stage Winter Moth (moth)

C: Linden on left was untreated, and Linden on the right was treated with ACE-jet using the TREE I.V.

Photo A taken by: Louis-Michel Nageleisen, Département de la Santé des Forêts, Bugwood.org

Photo B taken by: Hannes Lemme, Bugwood.org

Photo C taken from Arborjet Inc. research, by Anette Linnea Rasmussen (fotolia.com)



WINTER MOTH

WHEN TO TREAT

Generally, the best seasons for injection are fall and spring, as 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 if applications occur when soil is extremely dry. If treating trees in the summer, it is best to 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 Winter Moth outbreaks are expected. Alternatively, treat when leaf injury first appears, or when caterpillars are first observed. One application is sufficient to control Winter Moth. ACE-jet remains active to protect the tree canopy for approximately 3 – 5 weeks.

WHAT TO EXPECT AFTER TREATMENT

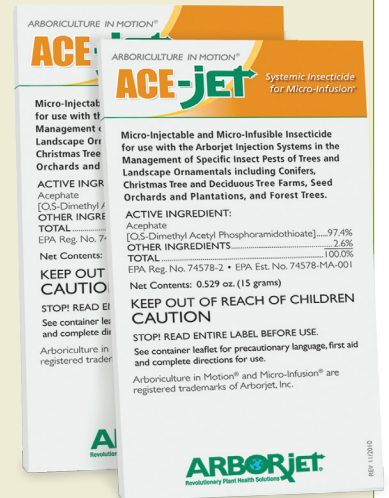
Trunk-injected ACE-jet moves rapidly to the growing points in the canopy, where caterpillars feed. Upon ingestion of ACE-jet insecticide, leaf feeding stops and caterpillars die.

WORLD CLASS FORMULATIONS

For treatment of winter moth 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.

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



QUIK-JET INJECTION



TREE I.V. INJECTION



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TREE I.V. 2-Pack Kit



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Arborjet Deluxe Kit

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