



Birch Leafminer

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The birch leaf miner is a major pest of birch in many Northeastern and North Central states. Grey, white, European white and paper birch are preferred hosts, although other species of birch are occasionally attacked. The birch leaf miner derives its name from the fact that the larvae feed between the surfaces of birch leaves. The damage to the foliage greatly reduces the aesthetic value of landscape trees. Severe and repeated infestations will weaken birches and render them more susceptible to invasion by secondary organisms such as the bronze birch borer.

DAMAGE

The first indication of a birch leaf miner infestation is distinct gray spots that develop around eggs deposited in succulent leaf tissue. Olive-green translucent blisters (mines) appear after eggs hatch. The mines usually first appear near the leaf midrib and enlarge toward the margins. The mines coalesce and the entire leaf turns brown, wilts and is cast prematurely. Often, the foliage on the upper branches of trees is most severely infested. When viewed from a distance, heavily infested birches appear scorched, as if burned by fire.

INSECT APPEARANCE

The birch leaf miner overwinters as fully grown larvae in cocoons in the soil. Adults emerge in early to mid-May, mate, and females lay eggs in succulent, developing leaves. Eggs hatch within seven to ten days and the larvae begin to mine

the leaf tissue. Larvae mature in ten to fourteen days and then drop to the soil to pupate. Adults appear within fifteen to twenty days, and the cycle begins again. A normal life cycle requires five to six weeks. Three to four generations of the birch leaf miner occur each year throughout most of the insects' range. Only the first two generations cause appreciable damage, since adults only lay eggs in the succulent leaf tissue, which is present in greatest quantity in early spring.

CONTROL

The birch leaf miner can be controlled with foliar applied insecticides or with systemic insecticides applied to the soil. Apply foliar sprays in mid-May and in early July to control the first and second generations. Systemic insecticides should be applied just as adults begin to lay eggs or when the mines are just beginning to form. Once mines begin to enlarge, foliar application of a systemic insecticides can reduce further damage.

A single application of a granular systemic insecticide to the soil around susceptible trees also will control the first and second generation of birch leaf miner. Surface apply the granular insecticide to the area beneath the dripline of the tree in the early spring just after budbreak. The granules should be scratched into the soil or turf, and the treated areas should be watered thoroughly following application.

The Bartlett Tree Research Laboratories Control Recommendations lists currently labeled pesticides, rates and application procedures for control of birch leaf miners.

