

Cornell University College of Agriculture and Life Sciences

Plant Disease Diagnostic Clinic Plant Pathology and Plant-Microbe Biology Section

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Leaf Tatter

Introduction

In the late spring or summer homeowners are sometimes distressed to find leaves on their broadleaved trees and shrubs such as maple, ash, dogwood, sycamore, lilac, Carpathian walnut, and many others, with numerous holes or a tattered appearance. Some leaves showing this injury may remain on the tree all summer long and fall only with the onset of autumn, causing the appearance of the tree to be less than healthy-looking throughout the growing season.

Symptoms

The cause of this leaf damage may occur in early spring when buds first start to open. The tender young leaves are very susceptible to freezing injury. Though the temperatures may warm up enough in March or April for winter dormancy to be broken and buds to begin to open, many parts of New York are subject to frosts well into May. This means that the tiny developing leaves can easily be frost-injured. Sometimes the injury is severe enough to kill all the leaves in early-opening buds, but often only small pockets of cells here and there on the tiny young leaves are killed. This more subtle frost injury is not noticed on the leaves until they are fully expanded. Then the frost killed areas appear as prominent holes because they did not keep pace with the rest of the leaf tissue as the young leaves expanded to full size. This uneven growth also frequently contributes to a distorted appearance of the injured leaves as well as the characteristic tatter.

Though alarming in appearance, this injury does not usually seriously harm the tree. As the season progresses, many leaves will be produced on the new growing shoots and the older tattered leaves will make up a smaller proportion of the total amount of foliage. At the same time, many of the badly tattered leaves will drop off early. As a result, the leaf tatter will not appear as serious and the plant will be less dependent on injured leaves for its survival.

Management Strategies

A vigorous tree or shrub should be able to survive this type of injury easily, unless it is repeated several years in succession or some other adverse factor weakens the tree in addition to the frost injury. Sugar maples showing leaf tatter symptoms may be suffering from injury by the pear thrips (*Taeniothrips inconsequens Uzel*). For further information on pear thrips please see the Cornell Insect Diagnostic Laboratory fact sheets: http://idl.entomology.cornell.edu/ factsheets/.

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READ THE LABEL BEFORE APPLYING ANY PESTICIDE! Changes in pesticide regulations occur constantly. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office.

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