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Maple gall mites

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Symptoms and effects

Maple leaves frequently develop growths or swellings known as "galls." These are caused by microscopic mites. The form and color of the gall indicates which species of mite is the culprit. If a tree is heavily infested, its foliage becomes distorted and drops prematurely. But usually the injury is only temporary, and the tree's vigor does not deteriorate significantly.

Three common types of gall mites infest various maple species in Wisconsin: maple bladder, maple spindle, and erineum gall mites.

Maple bladder-gall mites
(*Vasates quadrupeds*)

This type of gall mite overwinters under bark scales on trunks and larger limbs of silver and red maples. It also hibernates in buds or under bud scales. Bladder-gall mites become active in the spring and enter leaves as soon as leaf expansion begins. This activity stimulates abnormal plant cell growth, producing galls 1/16–1/8 inch in size on the upper leaf surfaces. At first the globular, wart-like galls are light green to yellowish-green in color. They become pink to rose-colored as they develop. Finally, the galls turn almost black during the latter part of the season, although you may find occasional new galls throughout the season.

The distribution of galls on a tree is irregular, but they are most common on leaves of the lower inner branches. Small trees may occasionally have galls on every leaf, or you may find them only on one side of the tree. The abundance of bladder galls varies from season to season.

Maple spindle-gall mites
(*Vasates aceriscrumena*)

The behavior of this mite is similar to the bladder-gall mite. The spindle-gall mite attacks hard maples (red, sugar, and Norway) and soft maples (silver).

Spindle galls stand erect on the upper leaf surfaces. The galls are about 1/5 inch long and somewhat thicker in the middle than at the ends, hence the name spindle galls.

The abundance of spindle galls varies greatly from year to year. In some seasons they are almost impossible to find.

Maple bladder galls. Wart-like growths appear on the upper surfaces of this silver maple leaf as a result of feeding by mites.

Maple spindle galls. These spindle-shaped growths appear on upper leaf surfaces as a result of mite feeding.

Erineum gall mites
(*Eriophyes aceris*)

These mites cause small velvety patches on the undersurface of silver maple leaves. Patches are about ¼ inch in diameter, but patches can run together if mite numbers are high. In spring and early summer the galls are usually pale green, but as the season progresses the galls turn pink to reddish brown to black. The galls usually appear in lower central portions of the tree. Like bladder galls and spindle galls, erineum galls vary in abundance from season to season.

Erineum galls. Velvety patches usually appear on the undersurfaces of silver maple leaves as a result of feeding by this mite.

Control

Although galls can be unsightly in ornamental trees, you rarely need to treat trees except for aesthetic purposes or to protect recently transplanted young trees. The galls do little harm to well-established trees.

Where control is warranted, chemical treatments will reduce the number of galls. Because the mites overwinter on host trees, dormant sprays are particularly effective. Dormant oil or liquid lime sulfur are commonly used dormant sprays. Apply sprays when temperatures are above 40°F and freezing temperatures are not expected within 24 hours. Make sure there are no new leaves on the trees you are spraying. And be aware that lime sulfur will stain cement work, masonry, and woodwork, so exercise caution when treating trees near these materials.

Diazinon and Sevin are also effective controls of maple gall mites. For best results, make applications after the leaves start developing, at approximately half of their normal expansion.

References to products in this publication are for your convenience and are not an endorsement of one product over other similar products. You are responsible for using chemicals according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from chemical exposure.

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