

Giant tar spot

The fungus *Rhytisma acerinum* causes giant tar spot.

Host plants:

Rhytisma acerinum is the only tar spot disease to infect leaves of Amur (*Acer ginnala*), hedge (*A. campestre*), and Norway maple (*A. platanoides*). On the other hand, both it and *Rhytisma punctatum*, the cause of a smaller tar spot disease, infect mountain (*A. spicatum*), red (*A. rubrum*), silver (*A. saccharinum*), sugar (*A. saccharum*), and sycamore (*A. pseudoplatanus*) maple leaves.

Description:

Rounded, pale green, chlorotic spots with tiny fruiting structures just beginning to develop in the center of the spots appear on the upper surface of infected leaves by early summer. The small individual fruiting structures grow together to form large tar spots by late summer.



Late spring stage with black fruiting structures forming in chlorotic spots.

Photos: M. Petitjean, University of Massachusetts Extension



Mid-summer stage with individual fruiting structures forming large black spots.

The presence of these distinctive black tar-like fruiting structures is diagnostic sign of giant tar spot. Heavily infected leaves often drop prematurely from the trees.

Disease cycle:

In the spring, the black fruiting structures mature, split open, and forcibly eject spores into the air. The spores drift through the air and some of them land on leaves. If there are extended period of wetness, the spores germinate and penetrate the surface of young leaves. The fungus grows within the leaf for about a month before pale colored spots appear. As summer progresses black fruiting structures develop over and within the chlorotic spots. When leaves drop from the tree they tend to land with the fruiting structure side up, so they are then effectively oriented for spore release into the air in the spring. Infectious spores develop within the fruiting structures during the fall and winter.

Management strategies:

Giant tar spot infections do not threaten the health of vigorous trees. Most of the leaf area remains green during the summer and the tree has sufficient healthy leaf area to photosynthesize the carbohydrates it needs to thrive. Collect and dispose of fallen leaves to reduce the potential for infections next spring. Maintain sound tree vitality. Mulch the root zone. Fertilize as needed. Apply a soaking irrigation to the root zone during extended dry periods. In general, apply protective fungicides only to preserve the appearance of high value trees. Begin treatments, as the buds break open, and repeat per labeled intervals until wet conditions abate or the leaves mature.

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