



The Plant Doctor's LANDSCAPE TIPS

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Photo 1: Typical symptoms of tar spot on Norway and Silver Maple. Rarely found twenty years ago, the disease is now "epidemic" across most of Michigan.



Photo 2: Fallen leaves serve as overwintering reservoir of the fungus. Raking and composting or removing leaves from the landscape may help reduce the incidence of Tar Spot the next season.



Photo 3: An early symptom of tar spot is the pale yellow spots that continue to expand during the summer season. By the time any spot appears, yellow or dark, it is too late to try to manage this relatively harmless disease.

TAR SPOT OF MAPLE

INTRODUCTION:

Tar Spot, caused by several genera of the fungus *Rhytisma*, is a disease of maple (*Acer* sp.). The disease receives its name from the rather large dark leaf blotches many of us witness by the end of the summer season; these blotches appear as if a dollop of tar has been dropped on our maple leaves (Photo 1). With many spots, the leaves of some species may appear deformed. In severe infection years, leaves may fall prematurely in the late summer. Maple seeds may also be affected. Although many maple species may be affected, Norway, Silver and Red maples are most commonly afflicted with the disease. Twenty years ago, the disease was rarely observed in isolated pockets around Michigan; today, it is quite common in most locales throughout the Midwest. The disease might be confused with some other foliar diseases, such as anthracnose, but its distinctive appearance makes it one of the easier diseases to diagnose.

DISEASE CYCLE:

In brief, the fungus overwinters in leaves and leaf litter (Photo 2) that had originated from the deciduous phase of maples the fall season before. With warming and rainy periods in the spring, the fungus releases spores that infect the newly emerging maple leaves. The infection of maple leaves is dependent on prolonged periods of wetness, usually present in the spring. The incidence (amount) of tar spot on a maple in any given season is somewhat correlated with the moisture conditions in the early spring, at the time of leaf infection. As the spring and summer progresses, infections first appear as a small yellow spot that continues to expand into mid-summer (Photo 3). By late summer, the spots may measure one inch or more and become dark in color as the fungus prepares for its overwintering mode. Some spots on some species of maple may be much smaller.

DISEASE MANAGEMENT:

Control procedures may not be warranted, because implementation of such procedures will be difficult and most importantly the disease is not lethal to maple trees. Tar spot is predominantly a cosmetic issue; leaves that are infected still are able to photosynthesize and any (rare) defoliation occurs only a couple weeks before natural defoliation anyway. For some people, the spots may appear unsightly; to Plant Pathologists and others, the spots may appear as an interesting all-natural phenomenon of nature.

Cultural Management: In the Fall, leaves can be raked and destroyed through composting or removal from the site to minimize infections the following spring. This effort may prove futile if other neighborhood properties are not managed similarly. Maintain good vigor in trees with sufficient water and fertilizer (not excessive), to maintain good health in trees that may encounter some slight stress from this disease and other issues.

Fungicide Management: Fungicides are generally not recommended because the disease causes little if any long lasting adverse effects on maple trees. In some rare situations, particularly for those individuals with zero tolerance or after severe defoliation occurrences in previous years, fungicides may be applied in the early spring for attempted control of tar spot before any visible symptoms have developed. If fungicides are to be effective, the fungicide must be present on the newly emerging leaves prior to a possible infection period. Applications of fungicides to large Maple trees will be difficult and will not likely meet with great success. Fungicides will be useless contaminants of the environment if applications are made after the infection, especially when any form of the spot is visible on leaves.

For more information, please feel free to email me at robertsd@msu.edu or contact a professional plant health care provider. The author, MSU or MGIA do not endorse any particular products. If using pesticides, be sure to read and follow label directions.



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