

Entomosporium Leaf Spot of Photinia

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Photinia, a shrub belonging to the rosaceous family, is widely grown in nurseries and landscapes in the eastern United States. Several species, including *Photinia serrulata* and *Photinia glabra*, and a hybrid, *Photinia x fraseri*, are grown for landscaping. Because of its bright red, immature foliage, *Photinia x fraseri*, also known as “red tip,” is the most popular photinia grown. All of these ornamentals are susceptible to leaf spotting caused by the fungus *Entomosporium mespili*. Other ornamentals reported to be hosts of the fungus include juneberry (*Amelanchier* spp.), flowering quince (*Chaenomeles* spp.), loquat (*Eriobotrya japonica*), firethorn (*Pyracantha coccinea* var. *formosana*), Indian hawthorn (*Raphiolepis indica*), and mountain ash (*Sorbus sitchensis*).

Symptoms

Leaf spots on photinia first appear as minute, slightly raised dots on either surface of the leaf. Older spots have a slightly depressed center with raised margins (Fig. 1). On the juvenile, reddish colored foliage of *P. x fraseri*, the tiny, new, circular leaf spots are a darker red than the surrounding healthy tissue. Older necrotic spots (up to 3-4 mm in diameter) have ashen gray centers and dark purple margins surrounded by an indefinite lighter purplish halo. The centers of the necrotic spots are dotted with minute black specks, which are the spore-



Fig. 1. Leaf spots on photinia caused by *Entomosporium mespili*. (Photo by R. C. Lambe)

producing structures, or acervuli, of the fungus (Fig. 2). Leaf spots are discrete in light infections, but in heavy infections they often coalesce to form large, blighted areas. Infection is mostly limited to the leaf blade, but occasionally spots may occur on petioles and tender, young shoots. Heavy infections cause premature defoliation.



Fig. 2. Close-up of leaf spots showing acervuli, the spore-producing structures of the fungus. (Photo by E. Dutky-U. Md.)

Disease Cycle

The fungus overwinters as mycelium in fallen infected leaves from the previous year. In the spring the fungus produces spores (Fig. 3) that are dispersed by splashing water to healthy tissue. Symptoms first appear on the new growth of the

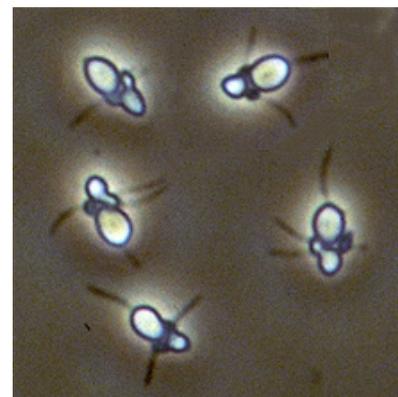


Fig. 3. Conidia of *Entomosporium mespili* (Photo by A. B. Sindermann-Md. Dept. of Ag.).

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lowest branches and spread gradually upward. The fungus continues to sporulate throughout the growing season. Because the fungus preferentially infects tender, new growth, cultural practices that stimulate succulent growth, such as summer pruning or frequent pruning or fertilization, favor disease.

Control

Cultural Control

Collect fallen leaves in the winter to reduce sources of fungal inoculum before new growth appears in the spring. Plants pruned in late summer may suffer infections on resultant new growth into the fall. Avoid frequent pruning and summer fertilization, which stimulate succulent growth.

Chemical Control

Fungicides, such as thiophanate methyl (e.g. Cleary 3336) or myclobutanil (e.g. Systhane), can be used preventatively, but they must be applied on a regular basis throughout the season for effective control. Follow label rates or consult the current *Virginia Pest Management Guide for Home Grounds and Animals* (VCE Publication 456-018) or the *Virginia Pest Management Guide for Horticultural and Forest Crops* (VCE Publication 456-017), <http://www.ext.vt.edu/pubs/pmg/>, for details on rates and intervals of application. For information on the proper use of pesticides and fungicides, refer to any current VCE pest management guide.

Adapted from previous publication by R. C. Lambe and W. H. Ridings.

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