

PHOTINIA LEAF SPOT (ENTOMOSPORIUM LEAF SPOT)

The advent of spring brings new growth to ornamental shrubs and trees. The bright red new leaves of the red tip photinia, hence its name, burst forth. Unfortunately, they usually become infected with leaf spot caused by the fungus, *entomosporium*. This fungus also attacks Indian hawthorne, cleyera, loquat, and Bradford pears. This fungal infection occurs on new growth of host ornamentals usually in the spring and fall months when the weather is cool and wet. The fungus requires free water on leaves and darkness for spore germination and infection.



The symptoms first appear on new growth of the lowest branches and spread upward. The first symptom of entomosporium is tiny, circular, bright red spots on both the upper and lower surfaces of young leaves. Gray centers form as these spots (lesions) expand. The spots may coalesce into large maroon blotches. Leaf spots on mature leaves have ash brown to light gray centers with a distinctive deep red to maroon border. Spots may also be found on leaf petioles and tender stem growth. Tiny black specks, spore-producing bodies of the fungus, frequently are seen in the

center of each leaf spot.

Low levels of leaf spot only cause cosmetic damage and can be a source of future infections. Severe infections frequently result in early and heavy leaf drop, which can cause plant death. Spores released from spots on the leaves and young shoots are spread by splashing water and wind to healthy foliage. New spots appear within 10-14 days after wet infection. Mature leaves are more resistant to infection. A severe infection frequently leads to premature defoliation, which can cause plant death.

The fungus overwinters on infected twigs and fallen infected leaves. In the Spring, spores are splashed onto the plants by rainwater and irrigation. High humidity, cool temperatures and crowded conditions favor disease development.

Various control techniques are available to the homeowner

- Do not water or fertilize plants any more than necessary to avoid promoting new growth.
- Prune only in late winter before bud-break. Summer pruning encourages new growth, which is susceptible to fungal attack.
- Remove severely diseased plants that also have been damaged by cold injury.
- Eliminate host ornamentals and replace with a resistant or immune plant such as wax leaf ligustrum, anise, tea olive, holly leaved osmanthus, little gem magnolia or burford holly.
- Remove infected twigs, rake up and discard fallen leaves to reduce amount of overwintering fungal spores.

- Space plants far enough apart to encourage rapid drying of the foliage after a rainfall
- Avoid wetting the leaves when watering since the fungus is spread by splashing water.

If there was a heavy infection the prior year, a foliar spray program may be implemented to protect new tissue. Photinia produces several growth flushes a season, so make regular fungicide applications. Fungicides will not cure infected tissue. Fungicide sprays should be made just prior to periods of warm, humid, rainy weather; such weather patterns stimulate spore production, new plant growth and thus new infections. Total coverage of stems and leaves is essential. Direct the spray nozzle to the ground beneath to cover infected, fallen leaves. Disease control is excellent when a hand-held spray gun is used. Acceptable control is not achieved with the air blast/forced air type sprayers. The following fungicides effectively control entomosporium leaf spot:

Active Chemical	Brand Names
Chlorothalonil	Daconil 2787, Bravo, Evade
Copper Hydroxide	Kocide
Mancozeb	Fore
Propiconazole	Banner MAXX, Immunex
Thiophanate-methyl	Duosan
Triademiphon	Bayleton

Observe all directions, restrictions and precautions on fungicide labels.