

## Photinia Leaf Spot

### Identification, Biology & Management

Species such as *Photinia x fraseri* 'Red Robin', *P. davidiana* 'Palette', *P. x fraseri atrop.* 'Nana' and *P. x fraseri* 'Pink Marble' are commonly grown shrubs throughout the UK and Ireland, mainly used for hedging to provide evergreen coverage throughout the year and attractive red leaf/stem growth in spring. Whilst considered a relatively pest and disease free shrub a frequent problem can be *Photinia* leaf spot caused by one of two problems i) infection by a fungus known as *Entomosporium*, or ii) a physiological disorder in response to the plant growing in a stressful environment, where soil conditions, climate or exposure are unfavourable for health.



Figure 1: Photinia leaf spot symptoms

### Symptoms

Tiny, circular, bright red spots on both the upper and lower surfaces of young expanding leaves are the first symptoms of *Entomosporium* leaf spot. Numerous small spots may coalesce into large maroon blotches on heavily diseased leaves (Figure 1). Leaf spots on mature leaves have ash brown to light gray centers with a distinctive deep red to maroon border. Spore producing bodies of the fungus, can often be observed in the center of each leaf spot as tiny black specks. Spots can also

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develop on leaf petioles and tender stem growth during prolonged periods of cool, wet weather.

Low levels of leaf spot cause little more than cosmetic damage but maintain a source of spores for future infections. Severe infections, however, often result in early and heavy leaf drop (Figure 2). Heavy leaf drop severely reduces the landscape value of plants ultimately resulting in death.



Figure 2: Leaf drop caused by fungal infection

### Control

**Physiological:** This issue alone will not damage the plant, however it does indicate a weakened immune system, increasing the possibility of other disease attack such as fireblight and/or powdery mildew. If the plant is in too much shade, prune back surrounding vegetation to increase light or consider relocating the plant. If soil moisture levels are an issue, mulching can reduce water stress whilst suppressing weeds, improving soil organic matter content, and encouraging beneficial soil microbes. If the ground is heavy, incorporate organic matter and products such as biochar to improve drainage.

Photinias respond well to pruning which can be used to encourage young, dense growth.

**Fungal:** Apply three to four sprays of an approved fungicide (ideally systemic) starting at bud break in the early spring and continue at regular intervals during the spring until dry weather. Thoroughly treat all leaf and twig surfaces. The wetter and rainier the spring the greater disease severity will be. Applying a dormant spray treatment before rain fall is also beneficial.

**Cultural:** Purchase plants showing no leaf spot symptoms. Isolated healthy plants or hedges can remain healthy as spores are only splashed over short distances. Space plants to improve air movement around the plants and promote rapid drying of leaf surfaces. If it is necessary to irrigate plants, do not wet the foliage. Remove fallen diseased leaves and burn.

Remove severely diseased plants that have also been damaged by cold injury and replace them with another species that are less susceptible to leaf spot.



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