

Friday's Feature

By

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Disease-free Camellia blooms start by picking up fallen flowers

Camellias are beginning to bloom, providing color in the landscape when few other plants are in flower. This is also the time when the petal blight fungus awakens from its dormancy in the soil, and starts to produce infective spores that can ruin camellia flowers.

Camellia petal blight can occur anytime flowers open and weather conditions are favorable. Disease development is favored by frequent rain showers, high humidity, and mild temperatures during the bloom period. The worst infections occur from mid-January on.

The first symptom is often darkening of the veins on the petals. Brown spots or blotches soon appear and spread until the whole flower turns brown and drops. Although cold injury may be confused with petal blight, it is not difficult to distinguish between them. With cold injury, flower petals turn brown but remain firm and leathery. Fungus infected petals also turn brown but are watery and soft. When blight-infected flower petals are held between the thumb and forefinger, the tissue has a slimy feel. Finally, a black hard mass called the sclerotium develops at the base of the flower about 15 days after the flower has been killed. The formation of the sclerotium, which is an accumulation of hardened fungus, is proof of the disease.



Symptoms of petal blight are confined to the petals.

Photo credit: Clemson University - USDA Cooperative Extension Slide Series, Bugwood.org

Understanding the life cycle of the blight fungus may help you apply control measures effectively. Infected flowers fall to the ground and lie on top of the mulch or are mixed into it. The fallen flowers decay and leave the sclerotia in the soil or mulch. The sclerotia live through the summer and fall in a dormant state. Then in winter and early spring, when camellias are blooming, the sclerotia germinate and give rise to millions of microscopic spores that are discharged into the air and may be carried by the wind for at least a mile.

If weather conditions are favorable, spores fall on camellia flowers and the fungus penetrates the flower tissue. Since there is no spread from flower to flower with this disease, the final step in the life cycle is the production of new sclerotia on the blighted flower.

No control program yet devised has been totally effective on this fungus. It is crucial therefore, that preventive measures be taken to keep it from establishing in the garden.

These points should be kept in mind when considering petal blight control measures:

- The fungus affects only the flowers and no other part of the plant.
- The fungus survives the summer and fall in the dormant stage as sclerotia on the ground.
- There is no secondary spread of infection from flower to flower.
- Sclerotia may remain viable in the soil for at least five years.
- Fungus spores can be carried by air currents at least a mile.

Sanitation is an important part of petal blight control. This involves gathering and destroying all the fallen flowers to prevent the formation of fungal sclerotia.

Chemicals can be used when there is a history of severe infection. Fungicides are usually targeted to the ground around and under the plants in the fall prior to flowering. Contact your local Extension Office for current recommendations.

A physical barrier placed between the sclerotia and the flowers can be used instead of the fungicide ground spray. Heavy mulch or other barriers may be used to cover the ground under the plants in late December and can be removed at the end of the flowering season. The function of the barrier is to prevent the fungus spores from reaching the flowers. This approach is applicable only where a few plants are involved and the only source of fungus spores is from your own property.

Theresa Friday is the Residential Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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