## **Rose Diseases**

## Symptoms, Causes and Remedies

## **Powdery Mildew**

This is one of the most common and pervasive diseases of roses.

**Symptoms**: Leaves fold at mid-rib or are distorted. White or gray powdery material appears on the forming buds and leaf tops or undersides. It attacks the plant from the top down.

<u>Cause</u>: Typically occurs with warm days, high humidity and cool nights. Plant stress, such as drought, heat stress and overhead watering, drastically weaken the roses' natural resistance to the fungus. Some roses like some late afternoon shade to take the edge off the heat.

**Remedy:** Pruning and removal of infected plant material is the first level of defense followed by the application of fungicides. Some gardeners use baking soda and soap mixed into a spray. It helps to have good air circulation and ample sunlight (6-8 hours). Fungicides can stress the plant further and should be applied on a cool day.

Black Spot It is the most significant disease of outdoor roses. The fungus has been widely distributed with cultivated roses and no real complete resistance is believed to exist.

**Symptom:** Dark black and sooty spots on the leaves. The spots tend to be round, varying in size from pinpoint to quarter sized. The infected leaves turn yellow leading to leaves dropping off the plant. It attacks the plant from the bottom up.

**Cause**: The fungus can over-winter in infected leaves and canes and moves via wind currents or splashing water.

**Remedy:** Remove dropped leaves and other debris and discard; Spray with fungicides known to be effective on blackspot or select varieties with a known resistance. Keeping the plant healthy and stress free is one of the best preventative measures.

**Downy Mildew** It is a common rose disease that occurs under moist conditions and is found throughout the United States. All species of cultivated and wild roses are susceptible.

**Symptoms:** Leaves, stems and flowers may manifest purple to red or brown irregular blotches. Dark, irregular splotches appear on the leaves. Advanced infections will have yellowing of leaves with brown necrotic areas and noticeable leaf drop.

<u>Cause</u>: This systemic fungus disease is present in the soil and will begin to cause problems when night temperatures reach 55 to 65 degrees Fahrenheit with 85 percent humidity.

**Remedy:** Cut back the defoliated plant and clean up the debris. Apply a fungicide to control the infection.

Rose Mosaic Virus

It is most often transmitted by propagation and requires tissue-to-tissue contact. It can also spread by natural grafting of roots to neighboring roses. This process requires close proximity for the roots to successfully graft and transmit the disease.

**Symptoms:** The foliage may display a variety of distinct yellow patterns or may not display any symptoms at all. Infected plants are slower to develop than healthy plants, produce fewer and poorer quality blooms with shorter life spans. Typical foliage symptoms appear in the spring, disappear for a few weeks and may reappear again.

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<u>Cause</u>: Prolonged tissue-to-tissue contact, usually initiated at the propagation stage via grafting.

**Remedy:** There is no cure for mosaic virus. Purchase only quality plants that have no symptoms of the disease. Infected plants can only infect other roses if their roots grow together or are grafted. If the rose is far enough away from other roses, you may continue to grow the rose, until it dies, without fear of it infecting other roses. If you are pruning an infected rose, sterilizing your sheers is advised, and a good habit anyway. However, the chances of transmission by pruners is statistically negligible.

Rose Canker

Canker fungus is most active during the cold time of the year when roses are not actively growing. The fungi usually cannot produce the disease when conditions are favorable for plant growth.

<u>Symptoms</u>: The stems will yellow, often have red spots and later become brown or black. In severe cases the stem is covered in black lesions.

<u>Cause</u>: In spring, pruning cuts or wounds can be colonized by canker causing fungi.

<u>Remedy</u>: Removal of infected canes and a general spray program for fungal disease will reduce canker problems. Good pruning hygiene is a must, sterilization of sheers is required.

Rose Rosette Disease Originally a disease only found in warmer climates, it has now started appearing in New England. While still very rare, it can turn into a serious disease for any rosarian.

<u>Symptoms</u>: Characterized by many distorted shoots suckering from one node, often showing unusually red coloration (distinct from normal healthy new growth). Leaves and canes on new growth are deformed with excessive proliferation of thorns.

<u>Cause</u>: It is a virus spread by eriophyid mites. Mites overwinter on living plants and reemerge to attack new growth in the spring. Transmission is more likely when roses are actively growing. The mites favor Rosa Multiflora, an invasive species, but can travel passively on the wind. The mites can only survive about 8 hours without a host plant, however they can still be transmitted on clothing and equipment in that time.

<u>Remedy</u>: Removal of the host plant is necessary, including the roots. Be careful to not spread the mites during this process. Preventative treatment of nearby roses is advised. Horticultural oils and insecticidal soap can control the spread of the eriophyid mites. Products that control spider mites may not control eriophyid mites.

