

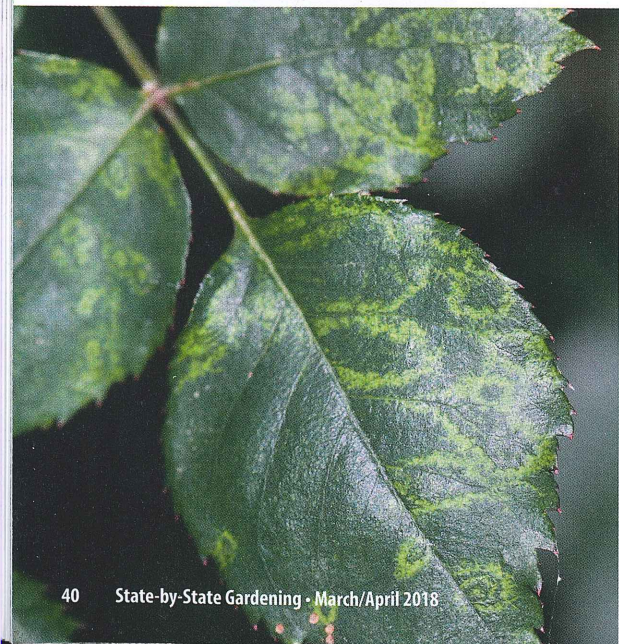
Rose Diseases, Pests, and Problems

What you need to know to grow amazing roses

Story and Photography by Douglas A. Spilker, Ph.D.

My infatuation with roses started with helping my grandfather with his 'Peace' and 'Mr. Lincoln' roses, but I have found I am not the only who loves roses – pests and diseases adore them, too.

I have always enjoyed growing roses, with their natural beauty and fragrance, even though they are very susceptible to a number of pests and diseases. Roses can survive without a good maintenance program, but they may not be very attractive. A good rose care program actually starts before they are planted. Proper site selection, good soil preparation, good drainage, setting the proper spacing, and cultivar selection are essential to getting them started right. All of these foster healthy roses that are better able to withstand the stress of pests and diseases.



➤ Plants affected with rose rosette disease often have bright red proliferation of shoots, which may be confused with normal new growth.

Facing Page Left: Rose mosaic may appear as yellow ringspots, zigzagging lines or mosaic patterns during especially cooler temperatures.

Facing Page Right: Many newer shrub roses have resistance to many diseases, and add color to the landscape with little or no maintenance.

DISEASES

Most common rose diseases are fungal in nature. Fungal diseases flourish under moist conditions. Good plant spacing will reduce these ideal disease conditions by ensuring good air flow around your plants. Roses require at least five to six hours a day of full sun for optimum growth, so select a proper sunny location that will also assist in foliage drying after a rain or irrigation. It is best to water roses at the base of the plant, not overhead, all over the leaves and buds.

BLACK SPOT

Black spot can cause almost complete defoliation of bushes by early fall, resulting in a weakened bush. Black circular spots appear on the upper surface of leaves, starting at the bottom of the plant and moving upward. Infected leaves turn yellow and fall off prematurely. Infections on canes appear as reddish-purple spots. Splashing water spreads black spot. Infection occurs after leaves are wet for several hours, making it more serious during rainy periods and with overhead irrigation. The fungus overwinters in fallen leaves and stem cankers. Raking and removing these leaves as well as pruning out affected canes by spring may help provide some control.

POWDERY MILDEW

Powdery mildew is a fungal disease that appears as a white powder especially on younger leaves causing them to curl, and on unopened flower buds. Mature leaves



are less susceptible. Powdery mildew is spread by wind and develops rapidly during late summer with warm, dry days followed by cool, humid nights. Prune out all dead and diseased canes in early spring to reduce initial inoculum. On susceptible varieties, thorough coverage of especially new growth and buds with an appropriate fungicide is very important. Otherwise, the buds and leaves may never open.

DISEASE CONTROL AND PREVENTION

For preventing rose diseases on highly susceptible varieties, a preventive fungicide spray program is required. Start spraying when the first leaf buds appear, and reapply in seven to 10 days. After those initial applications, follow the label directions for further preventive use. Although preventive sprays are best, some fungicides can be used in a curative pro-

gram, which is used for battling the much more challenging situation after disease has been established. As with all spray materials, follow label directions carefully for mixing and applying.

Whenever possible, select disease-resistant varieties. There are numerous rose varieties resistant to the three main diseases (black spot, powdery mildew, and rust); however, realize that this does not mean they are immune to diseases, but just better able to tolerate them. Despite the plant's excellent resistance to certain diseases, such as powdery mildew and black spot, various other pests like viruses, insects, and mites also attack roses.

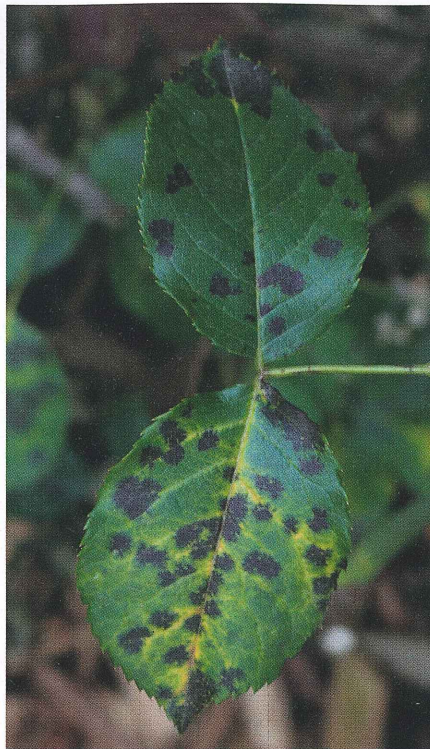
NEITHER A FUNGUS NOR AN INSECT

Rose mosaic is caused by a virus. Various bright yellow patterns may appear intermittently on the leaves of some varieties, but especially during the cooler times of the year. Although the overall damage appears as mostly cosmetic, the plants will become stunted and weak due to virus infection. Virus-infected plants cannot be cured. The virus is non-contagious in the garden and is primarily spread through propagation of plant material. Therefore, start with virus-free roses to avoid problems. Look for ones designated as "VI" (virus indexed). Severely infected plants should be dug up and destroyed.

Rose rosette disease, also known as witches' broom of rose, is caused by a virus-like pathogen spread by a microscopic eriophyid mite. The main symptom is an abundance of distorted, usually bright red, foliage (a witches' broom). Affected canes may be excessively thorny, and are softer than unaffected canes and break off easily. Plants decline over time. Dig up and destroy infected bushes before the disease can spread. Controlling the mite has been tried as an option, but results have been inconsistent.

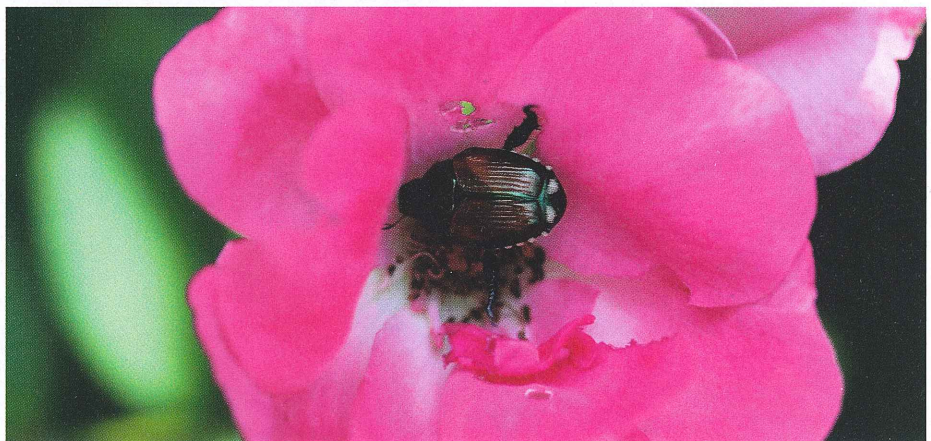
CHEWING AND SUCKING PESTS

Aphids, mites, and thrips are common pests that feed on the sap of roses, causing wilted foliage and buds, leaf drop, loss of vigor, and overall poor health. Aphids are soft-bodied sucking insects that can be red, green, yellow, or black. They feed on very young succulent shoots, causing distortion. Aphids are often kept in check by natural predators. Mites are very tiny relatives of spiders. Mites pierce the underside of rose leaves and suck sap, causing the leaf to turn a speckled gray. A fine web is a



Top: Although black spot disease starts as circular patches, the disease expands causing infected leaves to turn yellow and fall off prematurely.

Bottom: Japanese beetles do extensive damage just by their sheer numbers and voracious appetite. They prefer flowers and flower buds, but they will also attack foliage.



sign of a heavy infestation. Mites reproduce rapidly, resulting in high populations in a short time. A high-pressure washing with water from a garden hose directed to the underside of the leaves may reduce mite levels. Insecticidal soaps and neem can be effective in controlling mites – be sure to spray the top and undersides of the foliage.

Japanese beetles are metallic green with copper-colored wing covers, and cause extensive damage to roses by chewing holes in flower buds, petals, and foliage. On foliage they eat between the veins, giving the leaves a lacelike appearance. Many conventional insecticides provide

Get to the root of it

Are you aware that the roots of your rose may differ from the tops? This is especially true for hybrid tea roses. Basically, a desired rose variety is grafted onto a more vigorous field-grown rootstock, recognized by an unsightly bud union bulge. Own-root roses are propagated by stem cuttings. Old garden, shrub, and miniature roses are commonly grown on their own roots. There can be advantages for both. Grafted roses are commonly more mature when purchased, and therefore bloom sooner, whereas, own-root roses are said to have better winter survival. If you purchase a grafted rose variety, be vigilant. If the top growth is delayed or winter-killed, you may see a new color rose sprouting from the rootstock. Rootstock suckers must be pruned out to maintain the original rose.

good control, but they require reapplication and reduce beneficial insects. If traps are used, place them in areas away from the rose garden since they also attract beetles from outside your yard. Small numbers of beetles can be hand-picked. Damaged plants attract more beetles, so early control is important. The good news is that the beetles are only active for about six weeks in the summer. They overwinter as a partially grown grub in the soil below the frost line. ♣

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