

## Are You Being Bugged ...

By Hal Reynolds, Vice-President Desert Rose Society, ARS Consulting Rosarian

.....**by insects and diseases?** Fortunately, those of us lucky enough to live in our little corner of this desert paradise are victimized by fewer insects and diseases than in most other parts of the country. Yes, we do have bugs, and yes, we do have diseases attacking our roses, but far fewer than in other places. We seldom, if ever, see black spot, downy mildew, crown gall, or rust. Although we can have powdery mildew, it is not as severe as it is in other places and it is mostly seen in spring before the desert heats up. We do have aphids, spider mites, leaf cutter bees, thrips, and our very own hoplia beetle, but on the other hand, we do not have Japanese beetles, and we seldom, if ever, see rose slug, San Jose scale, midge, cucumber beetle, sawfly, katydid, and many other rose pests. In this article we are covering the most commonly found pests and diseases in our area.

**APHIDS:** We do have the dreaded aphids (plant lice). No matter how fastidious and tidy you are, you will have these "lice." They are a fact of life for rose growers. Aphids are small, usually green or black insects that may have wings and are about 1/8" long. They suck the plant juices from tender parts of the plant. They excrete honeydew, a sticky substance that attracts ants. They are prolific breeders and multiply rapidly in warm weather.

The question is how can you get rid of them. With a mild infestation, you can hand pick them off. I do this by mashing them between my fingers. There is a YUK! factor here but not a problem if you wash your hands; it does readily wash off. There is a certain satisfaction in feeling their evil little bodies explode under the powerful force of your mighty digits. Just remember to wash your hands before lunch. If you are too squeamish, or if your infestation is more severe, you might like to try the next earth friendly way of aphid eradication. Use your garden hose with a fairly strong stream to wash the little vermin off the plant and onto the ground. Make sure that the water stream is not so strong that it damages the tender growth. Once on the ground, they seldom get back on the plants. Aphids have a fast reproduction cycle so you will have to repeat this process every couple of days until the infestation becomes bearable. Aphids hang out under the leaves too, so be sure to give the underside of the leaves a good spraying as well as the tops.

If you have done all the water spraying you can stand and still have an unbearable amount of aphids, you may resort to chemical sprays. Start with organic type sprays, such as insecticidal soap, as there is no sense harming the environment if you don't have to. There are chemical sprays that work, but use them only as a last resort. Check with your local independent nursery for advice on which product is the least harmful to you and the environment. If you are using these chemical sprays, be sure to wear protective clothing, gloves, and a proper mask. When you use these chemical solutions, you will probably also destroy other insects that kill aphids such as lady bugs, lace wings, and aphid wasps. Some gardeners actually purchase these beneficial insects and release them in their gardens. I find, however, that the

effect is short-lived because they soon move on to greener pastures in your neighbor's buggier garden.

**LEAF CUTTER BEES:** These honeybee-sized bees are seldom seen but they make perfectly cut semi-circles in the leaf and petal edges. They cut sections out of the rose leaf and petal to use to line their nests. Now comes the part you really do not want to hear: please do not spray for these bees. They are valuable pollinators and need to be protected. If you spray for them, you will be killing off other beneficial insects and bees. The world is headed for a crisis in the bee populations. We can not afford to lose any more bees. The world could become a pretty hungry place if we lose all of our bees. Cutter bees are only active for part of the year and, unfortunately, we really should just tolerate them.

**SPIDER MITES:** The two-spotted spider mite is the most common species found on roses. They are especially prevalent during hot, dry weather and difficult to control if they get established. They feed by sucking sap, primarily from the under side of the leaves and can eventually defoliate your plant. It is important to detect them early. Early symptoms will be a lightening and speckling of the lower leaves. If you shake the infected foliage over a piece of white paper, the spider mites can be seen as small dots. They are so small they are difficult to see on the plant with the naked eye. You will also notice fine webbing and eggs on the underside of the leaves.

A light infestation can be controlled with a forceful spray of water to the underside of the leaves. This knocks them off, plus makes the plant undesirable as spider mites do not like wet places. You will need to repeat this spraying every couple days for effective control. Insecticidal soaps and oils can be used for control of spider mites but be sure to spray the lower surfaces and the underside of the leaves. If you find you must resort to a miticide, check with your local independent nursery for a recommendation for the least harmful yet effective product. Remember to wear protective clothing and mask when spraying chemicals.

**HOPLIA BEETLE:** This little blackish-gray beetle about 1/4" in size is believed to be a relative of the Japanese beetle. It spends part of its earlier stages of life in the soil. It will appear in the spring when roses start to bloom and is only present for about six weeks. These nasty little creeps like to attack the blossoms of white and light-colored roses and leave them in tatters. Currently there is no approved chemical for the control of this critter. The simplest method of control is to pick him off, drop him on a flat surface, and stomp him to death. The stomping is good exercise and there is satisfaction that comes with revenge. You can also drop him in a sealed container to suffocate or in a water-filled container to drown. Dispose of remains in the trash.

**CANE BORERS:** Cane borers are wasps or bees that nest in the ends of rose canes in the pith of the cane. They can be active from spring through fall. They can be easily spotted by the holes they leave in the ends of cut canes. The borers we find here in the desert do not bore very far into the cane and do not do major damage. You can paint the end of cut canes with waterproof glue to prevent the borers from entering. I do not find this necessary. If I do anything, I simply cut the cane below the borer hole and discard it.

**FLOWER THRIPS:** Thrips are very active winged insects barely visible to the naked eye. They hide in the buds and blooms of roses and damage the petals with their rasping mouthparts. They also seem to prefer lighter colored blooms and do their damage when the blossom is still a bud. This makes it difficult to treat as they hide in the unopened blooms. Hanging blue or yellow sticky traps nearby may ensnare the pests. If you need a stronger control, contact your local nursery for a recommendation for the safest, most effective, insecticidal soap or insecticide. Remember to wear protective gear when using chemicals.

**CHILLI THRIPS:** A more recent addition to the pests rose growers in the desert encounter are Chilli thrips, which, unfortunately, thrive in our summer heat. These tiny bugs are difficult to see, but can do major damage to plants. Look for brown striping on the undersides of the leaves and petals and deformed growth. They attack new growth and buds, ingesting the sap, which damages both the foliage and the bloom and possibly causing the death of the plant if unchecked. Chemical control is required to combat chilli thrips; specifically, the use of a spray containing spinosad is recommended. The chilli thrips build up chemical resistance quickly. If two applications of the spinosad spray fail to work, the use of a second insecticide may be needed. Check with your local nursery for a recommendation for the least harmful, yet effective, products. Remember to wear protective gear when spraying chemicals.

**POWDERY MILDEW:** This fungus is one of the most prevalent and serious rose diseases. As conditions warm in the spring, the dormant fungus becomes active and produces spores, which can be blown by the wind to susceptible young growth. First symptoms are slightly raised blister-like areas on the upper leaf surface. Later, the young growth becomes distorted and buds, stems, and leaves will be covered with a white powdery substance. Cool, damp nights and warm days favor the development of powdery mildew. The spread of spores usually occurs during day time when the plants are drier. We see it when the roses begin rapid spring growth and sometimes in the fall as well.

One of the best preventatives for powdery mildew is to plant powdery mildew resistant plants. Another preventative is to plant your roses with adequate space between plants. This promotes air circulation, which will help to prevent the spread of the fungus. Dormant pruning and sanitation of the rose planting area and removal of dead leaves can reduce the

chances of re-infection. The fungus does not tolerate being wet; therefore, spraying your roses with water can discourage powdery mildew. As a chemical control, fungicidal sprays may be applied at seven to ten day intervals. Fungicides will work best when the disease is just getting started rather than when the disease is well established. Fungicides are toxic chemicals that should only be used when needed and strictly according to the label instructions. Powdery mildew tends to disappear on its own when the heat sets in.

**CRITTERS:** We also have two non-insect/non-disease pests, namely rabbits and gophers. Most gardens located in cities are not bothered as much by gophers, but rabbits can be anywhere. The best controls for rabbits include trapping/relocation and/or protective fencing. Controls for gophers include trapping, baiting, or gassing.

A further note on chemical use and spraying.... As noted frequently in this article, it is important that you wear appropriate protective gear including proper clothing, mask, rubber gloves, and closed shoes. Follow the instructions for the product provided by the manufacturer. Use toxic chemicals only as a last resort, if possible. Shower after spraying and wash your clothing separately. In addition, heed these rules when spraying chemicals: Do not spray when the sun is hot on the plants. Do not spray when the wind is blowing. Do not spray when it is raining or the overhead sprinklers are due to come on.

One of the best ways to prevent insects and disease in the rose garden is by good sanitation. Another good practice is to spray water on your roses, as water can wash off aphids, spider mites, and other insects and discourage powdery mildew. In our very dry desert, the roses really like that little refreshing spritz when it is so hot. When you spray your roses on a hot day, you can almost hear them saying "AHHHH!"

Having lived in other parts of the country, I can tell you that our insects and diseases are minor compared to other regions. Our roses do not freeze out in the winter, nor require winter protection. We have more and longer bloom seasons, fewer insect pests, and our lower humidity reduces disease. Thus, this little low desert is one of the finest places for rose growers and their pet roses.