

INSECTS - FRIENDS & FOES

Careful observation of your garden throughout the growing season will reveal the presence of a multitude of different insects. Some insects will use the garden as a temporary resting place, some will utilize the plants as food and still others will come to feed on other insects. Before treating any insect infestation, you should know if the insects you see are a genuine threat to your roses. By applying insecticides only when a real threat of harm exists, and then only spraying the infested areas and not the entire garden, one can drastically reduce the amount of insecticide used and the number of applications. Reducing the application of insecticide will also allow the proliferation of predator insects which help to control the "bad" insects and further reduce the need to spray. In the Pacific Northwest there are relatively few insects that cause any harm in the rose garden.

MAJOR IRRITANTS

APHIDS - Aphids, also known as plant lice, are the most prevalent insect problem. Aphids are tiny insects, about 1/8 of an inch long, and may be many different colors but the ones on roses are usually pink or green. Aphids feed by sucking sap from the tender parts of rose plants. They feed primarily on new growth, including the developing flower buds and the underside of the leaves. These are usually the first insects noticed in the spring and can multiply very rapidly. As the temperatures increase in late spring their numbers usually decrease and then they tend to reappear in large numbers in the fall. They reproduce rapidly because every aphid you see in the spring is a female, males are only produced in the fall to fertilize eggs that over winter, and each adult aphid can give birth to up to 15 offspring daily. Fortunately, aphids can be controlled by almost any insecticide, even the mild contact insecticides such as the Insecticidal Soaps. Unfortunately, they can reproduce so fast that it often looks as though the insecticide has been ineffective. Physically knocking them off the plant with a fine strong spray from a hose is often quite effective. Once dislodged from the plant aphids rarely find their way back. Reducing the population this way often allows the predator insects time multiply and finish the job. Despite the oft heard warning that aphids will cause distorted foliage and damaged flowers I have never seen any of these manifestations on roses and I never treat for aphids.

LEAF ROLLERS - Leaf rollers are the larvae (caterpillars) of a number of different moths. The presence of leaf rollers is usually noted by the occurrence of eaten foliage and flower buds, or small black pellets of excrement on the leaves. These insects usually feed at night and during the day remain hidden in rose leaves which they roll up into a tube and secure with silk thread. Leaf rollers are generally not present in large numbers and can be controlled by hand picking the rolled leaves and crushing them. Due to the fact that they hide, a systemic insecticide is often necessary if this route of control is selected. (Check for spray concentrations for these insects on the label) Different species of leaf rollers will be present in the garden at various times during the spring and summer.

SPITTLE BUGS - These are small green insects that are found hiding in a mass of white foam on many garden plants in the

spring. The presence of these insects is obvious, however, they do not appear in large numbers and present no real risks to roses. Many gardeners remove them by hand or wash them off with a strong water stream from a garden hose. In three to four weeks they mature into small greenish-brown leafhoppers which live in the garden the rest of the year. If used, insecticides are effective only if the spray penetrates the "spittle". Wash the spittle off first with water then spray for good results .

MITES - The two spotted spider mite, often referred to as "red spider", is technically not an insect, but is treated as such. Mites are extremely small and are usually found on the underside of leaves. Their reproductive pace is directly related to the temperature and during really hot weather they can reproduce at a phenomenal rate. An early sign of mite infestation is that the lower leaves on rose bushes become bronzy in color, eventually falling off. Spider web like material will be seen on the surface of the leaves and when a leaf is rubbed between the thumb and forefinger it will feel slightly gritty. Viewing the leaf with a magnifying lens will reveal the presence of the tiny mites moving around on the leaf surface. Keeping the surface of the soil moist and vigorously washing the lower leaves every two to three days during hot weather can inhibit mite infestation. General insecticides are ineffective against mites. The miticide, Avid is very specific and kills only the mites.

THRIPS - Thrips are tiny insects that invade rose blooms producing small discolorations (bruises) on the petals or sometimes will prevent blooms from opening normally. Careful observation of light colored blooms will reveal the tiny thrips moving rapidly about. Thrips live on many different types of plants and invade the rose bed from the surrounding area making them difficult to control. If they become a serious problem, misting just the flowers with an insecticide every two or three days can control them. Removing old blooms also helps to control them because it removes one of their breeding sites. (NOTE: if you have only one of these insects, it is still called a thrips.)

ROSE SLUGS / EUROPEAN SAW FLY - This pest does not look like, nor is it related to, the common garden slug. Rose slugs are small green, smooth skinned worms with tapering bodies that are largest at the gold colored head end. They eat either the upper or lower surface of the rose leaf making the leaf appear lacy or transparent. Rose slugs are the larvae of the European sawfly. They do not usually occur in large numbers and removing them by hand is usually sufficient to control them. An insecticide such as Malathion should control them if their numbers become excessive. They have only one generation per year so look for them in late spring or early summer.

ROSE MIDGE - Rose midge can be a serious insect problem. Infestations by this insect most often occur in large rose gardens. The midge is an extremely tiny insect and is rarely, if ever, seen by the gardener. The adult midge emerges from the soil where it over winters and lays eggs at the tips of growing rose canes. The larvae hatch and feed on the very tip of the cane and then drop into the soil to complete their life

cycle. Their feeding activity, however, causes the growing tip of the rose to die, thus preventing that rose stem from flowering. The tip of stem will appear dark and its tiny emerging leaves dried up and dead. The last whole leaf at the end of the stem will often show some distortion from the feeding activity. The treatment for this insect is to apply granular soil insecticides to the soil surface of the infested roses. Diagnosing the presence of midge is difficult. If you suspect its presence, it is best to confirm your suspicions with a rose expert before instituting treatment. A few dead tips in a garden is normal and may be caused by other factors.

LESS COMMON MINOR IRRITANTS

Other Problematic Insects - With a couple of exceptions, most of the insects listed above while common rarely cause any significant damage. The following insects are usually seen even less frequently, but may occasionally cause problems. When these insects are present, their numbers are usually such that applying insecticide is not necessary. Manual removal should suffice in controlling them. If spraying becomes necessary, use a commonly available insecticide such as Bayer insecticide.

CATERPILLARS - During the summer months, a number of leaves may suddenly appear to be skeletonized or may disappear. Looking under the leaves nearby may reveal a number of fuzzy caterpillars. There are several butterflies and moths which will lay their eggs on roses. Usually they are not considered a serious problem, but if they appear, pick off the leaf or leaves they are on and destroy them.

CUCUMBER BEETLES - (often referred to as green lady bugs because they are yellow-green with black spots). Cucumber beetles fly into the garden and feed on the petals and stamens of the roses. Spraying is ineffective because the adults are transient and they do not live in the garden. Hand removing the few individuals present will reduce the damage they cause.

CUTWORMS - Cutworms, also known as grubs, are the larvae of a number of different beetles. During the day they hide in the soil and emerge at night to feed on foliage, more often in vegetable gardens than in roses. If the rose foliage is noted to be eaten and there are no insects present on the roses, cultivate the soil at the base of the rose to unearth and destroy the cutworms. A soil insecticide applied to the soil under the bush will also control them.

EARWIGS - These are a relatively large dark brown insects most noted for the pinchers at their posterior ends. Earwigs crawl up rose stems at night and feed on the blooms. During the day they hide either near the base of the bush or deep in the flowers. There are insecticidal baits available for Earwigs if they become numerous and create a problem.

LEAF CUTTER BEES - These bees cut almost perfect circles from the edge of rose leaves and then use this material to build their nests. Finding their nests which are usually located in rotting wood or underground and then spraying with an insecticide is generally the only solution.

LEAF AND STEM MINERS - These insects are small flies that lay eggs on stems and leaves. When the larvae hatch they feed between the surfaces of the leaves or under the bark of the

stem leaving a white twisting trail. To control them, remove and destroy the affected leaves.

GRASS HOPPERS & KATYDIDS - These are green hopping insects with long antenna. They often feed during the night and represent one of the few occasions when the insect will not be found near the damage they do, since they are highly mobile and will be gone in the morning.

MOSSY GALL WASPS - This tiny non-stinging wasp causes large moss-like balls (galls) to form on a few varieties of roses. Inside these galls, the next generation of wasps are growing. To control this pest remove the galls in the fall or earlier and destroy them.

RASPBERRY CANE BORERS - The presence of this pest is usually noticed when the upper six to eight inches of a vigorous new shoot suddenly wilts. Prune the wilted part and discard, the larvae is under the bark, the bush will produce new growth. There is only one generation per year of these pests.

ROSE SCALE - These insects look like tiny brown volcanoes or little limpet shells and may form colonies on the stems. If present, cut off the infested stems and destroy them. Most often seen on newly purchased roses.

SOME BENEFICIAL INSECTS

Overall there are as many beneficial insects than there are harmful ones, probably more. The following are a few of the beneficial insects which are often seen in the garden. Many of the beneficial insects are small and nondescript and are rarely noticed in the garden.

LADYBUGS - Almost everybody knows the ladybug. These insects are usually red or orange with black spots but can be black with red or tan spots. The adults and their little black and orange spiny larvae eat tremendous numbers of aphids and mites and are beneficial to the garden. Their bright yellow-orange eggs are often seen on the undersides of foliage.

LACEWINGS - These frail looking insects with light green bodies and lacy transparent light green wings fly about the garden in the summer. Their larvae which hatch from eggs laid on the tips of long stalks look like tiny alligators. These larvae have very large jaws and spend their time eating any insect that gets in their way.

HOVER or FLOWER FLIES - The adults are usually yellow and black striped and resemble bees. These are often seen hovering in and around rose bushes. Hover fly larvae are light green to light brown in color and unfortunately, are often confused with caterpillars. However they have a white racing stripe down the middle of the back which gives positive identification. The larvae consume large quantities of small insects, most notably aphids.

EUROPEAN GROUND BEETLES - These may be the largest insect you will encounter in your garden. Often found while digging in the soil, they are up to one inch long are shiny black, appearing to have a purple sheen in the sunlight. These insects feed at night and two of their favorite foods are slugs and cutworms.

THERE ARE MANY MORE YOU NEVER WILL SEE!

References: *National Audubon Society Field Guide To North American Insects and Spiders*, published by Alfred A. Knopf, Inc. *Rodale's Color Handbook of Garden Insects*, by Anna Carr, published by Rodale Press, Emmaus, PA. *Pests of the West, Prevention and Control for Today's Garden and Small Farm* by Whitney Cranshaw, published by Fulcrum Publishing, Golden, CO.

Complements of The Portland Rose Society, Phone 503-777-4311, or www.PortlandRoseSoicety.org

Revised 1/08