

Holey Holes! What's Eating My Roses?

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Lots of pests chew holes in the leaves of our landscape and garden plants. But it's not always possible to actually see the critter that causes the damage. Sometimes they hide on the undersides of the leaves, where a casual examination will miss them. Some only come out at night. Frequently, by the time we notice damage and check the plants, they've already moved on to other plants.

Damage to rose leaves is the hot topic of the last couple of weeks. Damage first appears as light-colored spots, which on close examination appear to be papery and translucent. Later, the tissue is completely eaten, leaving elongated holes between the veins of the leaves. This is caused by an insect called the "rose slug," which is not actually a slug at all.

Rose slugs are the larvae of a sawfly. The larvae look like light-green caterpillars, but they are actually maggots. They feed on the soft leaf tissue between the veins on the undersides of the leaves. Usually, damage is only cosmetic, but young rose bushes and miniatures can be severely damaged. The most common rose slug (European rose slug sawfly) has one generation per year, and feed only for a few weeks in mid-spring; generally, by the time you notice the feeding, it's already too late to control it. Other species, such as the bristly rose slug sawfly, can have as many as six generations per year, and can do significant damage to roses.

Rose slug control can be achieved by hosing the larvae off the plants with a strong stream of water. The larvae hide underneath the leaves, so direct your hose there. Should damage become severe, spray your plants with one of the following: bifenthrin (Talstar), permethrin, carbaryl (Sevin), or Malathion. Spray after sunset, when the bees are no longer flying; by the time they return the next morning, the chemical should be dry and not as dangerous to the bees.

Other species of sawflies attack other plants. Pears, oaks, and elms will develop damage similar to roses. European pine sawfly feed in large groups of 20 to 100 individuals on Scot, Mugho, Austrian pines. They feed mostly on last year's needles, giving the trees a "bottle-brush" appearance. When disturbed, all of the sawflies will rear up at the same time, providing a somewhat startling appearance. The insecticides listed above for roses will work on all species of sawfly.

Although they appear to be caterpillars, a closer look shows that sawflies are different. Sawflies have pairs of prolegs (stubby little legs with suction-cup ends) on almost every segment of their body, whereas true caterpillars usually have only 3 to 5 pairs of prolegs; many of the segments will have none. This is important, because caterpillars are easily controlled with a naturally occurring bacteria called *Bacillus thuringiensis*, or Bt for short. This natural product does not affect sawfly larvae, though.

For more information on foliar-feeding insects, contact the Purdue Extension Service at (812) 435-5287.



Rose slug on the underside of a rose leaf.



When disturbed, sawfly larvae often stick their backsides up in the air all at once, forming a disturbing-looking mass effect.



Caterpillar (top) and sawfly larva (bottom). Caterpillars typically have 3 to 5 pairs of prolegs, with many segments legless. Sawfly larvae have 6 or more prolegs, and usually each body segment has a pair.