

Potomac Rose Society Information Bulletin

DEDICATED TO SERVE THOSE WHO ENJOY ROSES
District of Columbia and Potomac Area of Maryland and Virginia
Affiliated with the American Rose Society

GARDEN GOOD GUYS: BENEFICIAL PREDATOR INSECTS

The one thing that can always send a rose grower into a frenzy is the sight of a "bug". But with time and a patient eye, one can learn to observe and tell the good guys from the bad. In fact, without a substantial supply of beneficial predators, pest control in the garden is temporary at best.

There are two categories of beneficial "bug-eaters" in my garden, predators and parasitoids. Predators attack and consume prey directly by chewing or stabbing with their mouth parts. They like to lay their eggs near colonies of pests so that hatching larvae won't have to go far for food. Predators are often larger and more active than their prey. They also tend to have large eyes and forward pointing mouth parts. Parasitoids lay their eggs in or on other insects. When hatched, their larvae become predators, eating their prey from without or within.

The most populous beneficials in rose gardens of this area include:

LADYBUGS: To be truthful, these aren't "bugs" but rather *ladybird beetles*. They are the easiest to spot and we are blessed with over 33 different species in this area. A ladybug in the garden is a sign of well-being! They are attracted to plant nectar and nectar-eating pests such as aphids, mites and thrips. The adult is easy to identify, but few people are aware that the

larvae of such "cute little bugs" look like alligators. These young ones have large appetites and go after insect eggs, beetle larvae, aphids, and many other soft-bodied insects.

LACEWINGS: These are delicate, slender, light green or brown creatures. They are 1/2 to 3/4" long with large transparent wings that are longer than their bodies. Most gardens in this area have many resident species. Females lay their eggs atop long, thread-like stalks near soft-bodied insects. Again, the larvae are alligator-shaped, with a tapered hind end and front ice-pick-like mouth parts. Once hatched, the 3/8" larvae eat insect eggs, mites and thrips. As they grow, their diet expands to aphids, whiteflies, and small caterpillars.

SYRPHID FLIES: Some people call these "hover" or "flower" flies because they like to buzz around searching for nectar or honeydew-laden aphids. Most gardens have dozens of native species. Their markings are similar to bees and wasps. Their dark bodies are blotched with stripes and splashes of yellow and black. If you look closer, you'll note very short antennae and only a single pair of wings. The syrphid fly larvae are true maggots, about 1/8-1/4" long. As they grow, their color changes from white to tan to green to gray.

SOLDIER BEETLES: This long (1/2-3/4"), narrow predator eats aphids and other insects. They are often orange or red with black or brown wings and both the adults and larvae love to hunt.

WASP PARASITOIDS: It's more than likely that you'll never actually see these tiny, nonstinging creatures. They lay their eggs on or in the larvae, pupae or adult of their prey. Once hatched, the young then simply devour the host. What you will see is the cast off "mummy" of what is left behind. There are arsenals of native parasitoid wasps in area low-spray gardens.

All beneficial predators require lots of energy to search for prey. When pests are scarce, beneficials rely on pollen (source of protein) and nectar (source of carbohydrates) for energy. Certain plants are good at attracting with pollen and nectar. A beneficial bouquet for your yard can include:

Caraway (*Carum carvi*)

Coriander (*Coriandrum sativum*)

Bishop's Weed (*Ammi majus*)

Coreopsis (*Coreopsis* spp.)

Cosmos (*Cosmos bipinnatus*)

Goldenrod (*Solidago altissima*)

Sunflowers (*Helianthus annuus*, *H. debillis*)

Tansy (*Tanacetum vulgare*)

Yarrow (*Achillea filipendulina*, *A. millefolium*)

Sweet Alyssm (*Lobularia maritima*)

Candytuft (*Iberis umbellata*)

Scabiosa (*Scabiosa atropurpurea*)

The rose grower has three pest control options: mechanical, organic or chemical. Mechanical, *physical removal* of the pest is the least expensive and safest to the beneficial population. Organic controls are intended to *repel* the pest. These can include homemade, odiferous sprays as well as soaps and soap based preparations. These must come into direct contact with the pest and be repeated often. The third option is the one that should only be used as a last resort, chemical controls. These *destroy* pests and beneficials without bias. Before you reach for a chemical control, make sure you have tried other options first. Be sure to carefully examine the plant to make sure symptoms are pest related and not caused by cultural problems or disease.

Take the time to look closely at the creatures of your garden. With proper garden practices and design, beneficial predators can be encouraged to stay in the garden, multiply and eat pests.

This information bulletin is based on an article by Jo Ann Crystal for *The Newsletter of THE POTOMAC ROSE SOCIETY*. If you have questions on this or any other aspect of rose growing, please contact one of our consulting rosarians for free advice. For information regarding membership, contact Joseph M. Covey, (301) 279-0028.