Beneficial Insects

By Gloria Williams

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A short history of what they are and what you can do to attract them.

There are millions of insects on the earth today. They come in an amazing array of sizes, shapes and habits. You could say they are the good, the bad and the ugly of the insect world. The largest percentage, however, are neither good nor bad; they are just out there living their lives quietly, unobserved by most of us.

Most gardeners are aware of the “bad” insects that chew on our favorite rhododendron or suck the life juices out of the leaves we have nurtured so tenderly. What you may not know is that there are also a number of “good” insects in our gardens that are helpful. They are collectively referred to as beneficial insects and are grouped into several categories.

Pollinators, such as honeybees, mason bees, bumblebees and certain kinds of flies benefit gardeners by ensuring abundant harvests of fruits and vegetables.

Predatory insects benefit us by eating other insects, especially the harmful ones. The best known insect predator is the lady beetle. This familiar little red insect and her alligator-like larvae feed primarily on aphids. The female lady beetle lays her eggs where the food supply is plentiful. When the larvae hatch, they gobble up the nearest aphids and then go looking for more.

Another familiar predator is the ground beetle or *Carabidae*. Both the adult and the larvae feed in the soil at night. Their favorite snacks are cutworms, and the eggs and young of snails and slugs. You will find them during the daytime hiding under rocks or garden debris. If uncovered they quickly scurry away on their long powerful legs.

Yet another predatory insect is the newly hatched lacewing, another alligator-like larvae which can consume hundreds of aphids during its short life cycle.

Pirate bugs, big-eyed bugs and damsel bugs and their nymphs also are predators of aphids and other soft-bodied insects. The syrphid fly, better known as the hover fly, produces a sluglike larvae, which also feeds on soft-bodied insects.

Parasitizers are insects that lay their eggs on or in the bodies of other insects. When the larvae hatch, they feed directly on or in the body of its host. These insects are not easily observed because they are small and their activity goes on inside the host. Some examples are the tachinid fly, which attack caterpillars of moths, beetles, and sawflies. Ichneumonid wasps lay their eggs on alfalfa weevil larvae and the Braconid wasp lays her eggs on cabbage loopers and other large worms. The activities of parasitizers kill or inhibit the reproductive ability of its host. If you see a tent caterpillar with a white speck on its head, for example, you know it has been parasitized and will never reach the egg-laying moth stage.

Composters make up the last group of beneficial organisms. They break down organic material and turn it into humus. This group includes many types of beetles, as well as some noninsects, such as the

familiar pill bugs and sow bugs, which are crustaceans; and centipedes or arthropods, along with earthworms and many microscopic organisms. Working together, this group can change a pile of garbage into sweet-smelling, friable soil in a very short time.

Knowing that all of these beneficial insects and organisms live in our gardens, it seems like a good idea to give them optimal conditions in which to do their work. That means cutting back on insecticide sprays and other chemicals. When you spot aphids, don't be too quick to spray. Give the predators a chance to find them. Insecticides kill the good guys as quickly as the bad ones and it takes much longer for the beneficials to reproduce, while aphids multiply in mere days.

Another way to encourage these helpful insects to inhabit our gardens is to plant things that their young like to eat. Members of the carrot family, such as angelica, anise, coriander and yarrow; or daisy family flowers such as coreopsis, cosmos, gayfeather, goldenrod and Mexican sunflower attract lady beetles, hover flies, parasitic wasps and many more beneficials. Brassicas such as broccoli, candytuft and sweet alyssum are favored by desirable insects, as are some legume and buckwheat family members.

Ready to roll out the welcome mat for beneficial insects in your garden? Find more information in PNW bulletin #550, titled "Encouraging Beneficial Insects in Your Garden," available at the extension office or online at http://pubs.wsu.edu.

BENEFICIAL INSECTS WORKSHOP

- **What:** "What's that insect and what is it doing in my garden?" — a free WSU Know & Grow workshop, explains the concept of biological control, ways to distinguish beneficials from pests, and practical methods for attracting beneficials to home gardens and keeping them there.. Presented by WSU/Skagit County Extension Master Gardeners, in partnership with the WSU/Northwestern Washington Research and Extension Center.
- **When:** 1:00 to 2:30 p.m. Tuesday, June 17
- **Where:** WSU-Northwestern Washington Research and Extension Center, 16650 Highway 536, west of Mount Vernon
- **Speaker:** Dr. Beverly Gerdeman, entomologist and WSU research associate
- **Learn more:** To suggest an idea or topic for a future WSU Know & Grow workshop, call 360-428-4270.