NEWSPAPER ARTICLES

Beneficial Insects: Our Garden Helpers (September 24, 2022)

by Anne Skinner, Tulare/Kings Counties Master Gardener

Before you reach for that pesticide spray to do battle with a garden pest, consider the beneficial insects (defined as an insect that is valuable in the garden, performing pest control or pollination) living in your garden that thrive by consuming those pests. A pesticide sprayed over a plant will often kill both pests and beneficial insects. The pests may seem to be gone—until, without beneficial insects there to protect it, more pests attack your plant in a new infestation that's often worse than the original problem.

The most recognizable beneficial insect is the lady beetle, commonly called ladybug. Lady beetles consume plant-eating insects such as aphids, immature whiteflies, and scales. The Australian ladybeetle or vedalia beetle was imported to the U.S. and successfully reduced the threat of cottony-cushion scale in citrus orchards. Ladybugs are classified in a family of small beetles (Coccinellidae) and are commonly yellow, orange or scarlet with small black spots on their wing covers, and have black legs, head and antennae. Their strong coloring and distinctive spots are a warning to their predators. When threatened, the lady beetle secretes a toxic fluid from its joints, which gives them a bad taste. Scientists say there are over 200 different kinds of ladybeetles in California, with many being native to North America. One of the ladybug's favorite foods is the aphid; just one ladybug can consume 50 aphids in a day. They lay their eggs on the underside of a plant leaf near an infestation of aphids, so the hatching larvae have food waiting for them. Ladybug larvae, which resemble a tiny black and orange alligator, can eat dozens of aphids in a day.

Another important beneficial insect is the hover fly, also known as the syrphid fly. The adults are important pollinators, and the larvae can control 70-100% of an aphid population, if the larvae are sufficiently numerous. The hover fly name originates in their ability to fly much like a helicopter and hover.

How can you tell if an insect is a friend or a foe?

On the UC Master Gardeners homepage (https://ucanr.edu/sites/UC_Master_Gardeners/) click on the box for UC Gardening and PEST Information, then find Integrated Pest Management (IPM) for Home and Landscape. Pictures will help you identify the suspect(s) damaging your plants and Pest Notes contain pest information on plant damage and integrated management in the home garden. On the website, look for Biological Control to find videos, pictures, and information on all kinds of our beneficial friends (also known as natural enemies).

Aphids as an Example

A Pest Note contains specific information on pest identification, life cycle, damage, and integrated management including monitoring, biological control, cultural control and chemical control. Natural enemies of aphids include lady beetles, lacewing larvae, soldier beetles, syrphid fly larvae and parasitic wasps. Using the Pest Note on Aphids for an example, IPM methods stress controlling ant populations, since ants eat the honeydew that aphids generate and will actually defend aphid territory by fighting off predators and parasites. The Pest Note also recommends against indiscriminate use of insecticides, since they will destroy the beneficial insect population.

The Aphid Pest Note suggests these tips:

- Before planting, check for sources of aphids, such as weeds or aphids on a transplant.
- If you see ant trails on trees, apply a band of fabric tree wrap or duct tape around the trunk and apply a sticky material, such as Tanglefoot, to provide an ant barrier.
- A strong spray of water on the plant early in the day will dislodge aphids and wash off the honeydew.
- Vegetable plantings may need a protective row cover during the seedling stage to reduce aphid damage and aphid- borne diseases.
- New plant growth, especially on roses, brings out aphids in droves.
- High levels of nitrogen fertilizer will favor aphid reproduction. A better approach is to use small portions of organic fertilizer or time-release formulations throughout the season.
- If a pesticide is the only solution, use the least toxic product. An insecticidal soap spray is often very effective, but is harmful to hover fly larvae. Be sure to read the label on any product for cautions, insects controlled by that product, and **especially**

this time of year, the temperature range in which it can be used. The directions will specify the maximum temperature at which the product can be used without causing damage to the leaves of the plant.

Seeing aphids and honeydew or other pests on your plants and trees can be alarming, but try to work with the beneficial insects and check out UC Pest Notes first at http://www.ipm.ucdavis.edu/PMG/PESTNOTES/index.html.

The Master Gardeners will be available to answer your questions at a few select locations in the next few months!
Visalia Farmer's Market - 1st & 3rd Saturdays, 8-11 am, 2100 W. Caldwell Ave (behind Sears)
Hanford Farmer's Market – 4th Thursday, 5:30-9:30 pm, 219 W. Lacey Blvd
Ace Hardware, Visalia - 1st Sat./every month, 10 am-1 pm
Luis Nursery, Visalia - 2nd Sat./every month, 10 am-2 pm

Questions? Call us:
Call us: Master Gardeners in Tulare County: (559) 684-3325, Tues & Thurs, 9:30-11:30;
Kings County: (559) 852-2736, Thursday Only, 9:30-11:30 a.m
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