Encourage ladybird beetles to stay in your garden

By Jeff Edwards

As a University of Wyoming Cooperative Extension Service educator with an entomological background, I am often asked, "Where can I get ladybugs, and how do I keep them around?"

Ladybird beetles, ladybeetles, and ladybugs are common names for one of the gardener's best friends. Adults are usually brightly colored, generally have spots, and are voracious predators of many of the pests in the garden.

The larvae or immature ladybeetles look like little alligators with an appetite to match the real thing. As efficient as the adults are, the larvae are really the stage we want to keep in a garden, greenhouse, or high tunnel. They are less mobile (won't fly away) and do nothing but wander plants in search of food (plant pests).

Depending on the species, they will search out and consume pests that feed on plants including mites, whiteflies, scale insects, mealybugs, and aphids. These plant pests can quickly become garden problems.

Use for Insect Pest Control

If a chemical-free garden is desired, a control strategy is needed for quick action due to the quick reproductive cycle of many pests. Aphids have an interesting and effective reproductive strategy. They are oviviparous and parthenogenic (this means they are born pregnant and can reproduce without males) and can give birth to live young. They can double the size of their colony every three days under optimal weather conditions.

Ladybeetles are commercially available and can be purchased through the mail – 1,500 beetles are enough to cover approximately a 20- by 50-foot garden and will cost about \$9 plus shipping. This is a good strategy for quickly adding these predators to a garden, greenhouse, or high tunnel; however, they have a tendency to fly away from the release site.

Ladybeetles are readily available commercially because they have a behavioral habit known as aggregation. In the fall, ladybeetles will travel to select locations (usually in the mountains)



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and hibernate together in a group. There are such sites in the Snowy Range.

These groups can contain millions of individuals, making them easy to harvest by retailers. Retailers place the beetles in containers and hold the beetles at a temperature to simulate hibernation. When

the beetles are released in the garden, they have a tendency to leave the release site because the ladybeetles think it is spring and are still in the mountains and need to fly away from where they thought they were hibernating.



For more information

Online publications that can provide additional greenhouse insect control and ladybug information include:

- http://bit.ly/nztfOZ
- http://bit.ly/pN5ly2

If looking for predators or parasites to purchase online, use the following keywords: Ladybird beetle, predators, parasites, retail.

How to Keep Them Corralled

Here is a trick to keep them around long enough to lay eggs, which develop into larvae. When the ladybeetles arrive in the mail, put them in a refrigerator. The night before releasing them, open a non-caffeinated citrus soda and allow the carbonation to go out of it. The next morning, place the soda in a spray bottle. Working quickly (and probably outside near the garden), dump the ladybeetles onto a cookie sheet (or similar-type tray) and spritz (do not drown them!) the beetles with the soda.

The soda does two things:

1) provides a carbohydrate source for the beetles as they are hungry following hibernation, and 2) harmlessly sticks their wings together so they will not fly away.

Next, take the beetles out to the garden, place the tray on the ground near a plant that has aphids, and cover the whole plant and tray with a lightweight fabric that allows light to pass through. Leave this in place for at least three days or remove when small, yellowish football-shaped eggs are seen on the plants. Check the cloth for eggs; in a couple days, small larvae

will be in search of food. Eggs will begin to hatch within five days, and the larvae will be actively feeding for about three weeks until they enter the pupal stage (which is a non-feeding stage prior to becoming an adult).

In addition to ladybeetles, there are other predators and parasites that can be ordered via mail. These include lacewings, praying mantids, and parasitic wasps (a truly terrible way for an insect to die). Good luck encouraging predators in your gardens!

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