

There's a Bug for That...

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As more and more research shows that pollinators and other insects are losing ground rapidly due to changes in environment and farming practices, many individual gardeners are doing their best to create havens in their gardens for beleaguered insects. However, when pest species such as Colorado Potato Beetles threaten our carefully planted crops, or bagworms denude our evergreens, it is tempting to reach for a pesticide.

Even the most carefully applied, organic pesticides have the ability to damage non-target species. Remembering the tenets of Integrated Pest Management (IPM) taught to all Master Gardeners, the conscientious gardener wants to consider biological control of pests (tenet #5), before moving on to #6 (the responsible use of pesticides). Every pest species (pests make up 10% or less of all garden insects) has one or more predators at some stage of its life cycle. A truly balanced garden will encourage the beneficial 90% with the view of allowing a predator: prey cycle that will help both the gardener and the environment.

Taking a step back from the pest doing damage to your plant, consider the cycle of predator and prey. When the season is right, pests hatch and start to devour crops. The plants send out messages that they are being damaged, and beneficial predators come in. There will be a lag—a few days to a few weeks—before the predators balance the prey. The closer the predators are when the plant sends out the SOS the faster they will get to work. If you identify your pests and their predators correctly, and do a bit of research, you can modify your garden to give the beneficial insects an edge.

Take the bagworms mentioned above as an example. They are moth caterpillars that eat the developing buds of trees such as spruce, pine, and arborvitae. Parasitic wasps (which do not sting people) lay their eggs on the bagworm larva. When they hatch, they eat the larva from the inside out. This group of parasitic wasps is known to feed on over 200 species of pest, making them VERY useful to gardener who wants to minimize pesticide use.

How do you attract these wasps? In general, since the adults consume nectar and pollen, planting a wide variety of single-blossomed flowers and herbs will attract them. These happen to be the same plants that benefit pollinators, giving you a double whammy to help your garden. To specifically attract the wasp that preys mostly on bagworm larvae, plant asters under the affected trees. The asters are very attractive to these species.

The Colorado Potato Beetle is preyed on by multiple beneficial insects—tachinid flies among them. They resemble small houseflies. Attract and keep tachinid flies by providing a habitat rich in flowering herbs and daisy family flowers.

An excellent and inexpensive reference book that will help you with building a garden to attract the specific beneficials you need for the specific pests you have is [Good Bug, Bad Bug](#) by Jessica Walliser.