

# Encourage Pollinators and Beneficial Insects

We can all use a little help in the garden. And there is an army of tiny helpers eager to lend a hand. They are the beneficial insects, ones that behave in ways that are helpful to the crops we grow. These “good bugs” help out in a variety of ways- by hunting and eating (or using as food for their young) insects that are harmful to our crops, by parasitizing insects we consider pests, or by pollinating the fruiting plants we grow. Healthy populations of these beneficials help us to have a thriving garden with abundant yields without resorting to chemical pesticides that can be harmful to ourselves and the environment. All the good guys ask for is some food, water and shelter. Encouraging beneficial insects can not only help you have a more successful, and more beautiful, garden, but also is a great way to introduce your students to the idea of the garden as an interconnected ecosystem. Together you can learn to identify and nurture the garden “good guys” and work on projects that make your garden a more inviting to these helpful insects.

**Minimize the use of pesticides, even organic ones** – Even pesticides considered acceptable for organic gardens can harm the good guys along with the bad, so try to keep any pesticide use to a minimum. Of course, minimal pesticide use is a good idea when kids are in the garden as well. And discussing with your students the impact that pesticides can have on all the insects in the garden can be a starting point for talking with them about the importance of protecting our environment and all the creatures in it. If you do use a pesticide, spray in the evening after the pollinators have stopped flying. Try to choose ones with a narrow spectrum of control, like the microbial insecticide Bt, since this only affects caterpillar pests that are feeding on the sprayed plants. It’s also important to have some pests around for the beneficials to feed on. If there is nothing left to eat, the beneficials will move on to greener pastures! This is a good opportunity to point out to your students that the “bad” bugs aren’t really bad. Instead they are interesting creatures in their own right that are part of the intricate food web of the garden, a web we are trying with thoughtful garden practices to keep in balance.

**Plant lots of flowers to attract beneficials** – What a great excuse to fill the garden with beautiful blossoms! Flowers provide pollen and nectar for the different life stages of these insects. Think daisy and umbrella when it comes to choosing flowers. Those with umbrella-shaped clusters of small flowers, such as dill, caraway, coriander, yarrow, and Queen Anne’s lace are particularly appealing. Daisy-like flowers such as golden marguerite, sunflowers and aster are attractive to many beneficials. Other good choices include tansy, butterfly weed, mint, baby-blue-eyes (*Nemophila*), scabiosa, candytuft (*Iberis*), goldenrod, bishop’s flower (*Ammi majus*), cosmos, coreopsis, blazing star (*Liatris*), rudbeckia, bee balm, nasturiums, borage, fennel and zinnias. The most important thing is to have a diversity of blossoms and plant sizes blooming throughout the growing season.

A border of flowers around the vegetable garden is an excellent way to provide food and shelter for beneficials, along with flower plantings mixed into the vegetable beds themselves. Since the flowers of many herbs are excellent attractors, consider locating your herb garden in the center of your food garden. And let some of your veggies go to seed- the flowers of carrots, parsley, radishes, broccoli, and turnips are also favorites.

And finally, add shrubs out in schoolyard landscape, if possible. The flowers of pussy willow, spirea, summersweet (*Clethra*), wild lilac (*Ceanothus*), ninebark (*Physocarpus*), bluebeard (*Caryopteris*), holly (*Ilex*), and serviceberry (*Amelanchier*) all provide pollen or nectar for beneficial insects. Go out with your students on a sunny day and let them delight in the sight of so many insects foraging among the blossoms!

**Provide a source of water** – To help beneficials quench their thirst, have students set out a shallow pool of water in which they’ve placed some stones or piles of gravel for insects to perch. The bowl of a birdbath set directly on the ground works well. Some insects, especially butterflies and some pollinator bees, prefer a mud puddle. Let a hose or faucet drip just a bit to form a damp, muddy sipping spot. Perhaps students can take responsibility to go out daily with a watering can to top up the water — what kid wouldn’t like making a mud puddle?

**Give them some shelter** – If you can, let a corner of your schoolyard go “wild”. A wooded area or hedgerow 10 to 20 feet north of the garden is ideal, but even a small undisturbed area will give beneficials a place to shelter and nest. You can also make nesting blocks for pollinating bees that nest in wood, such as mason bees, by drilling at least 10 holes 4 to 8 inches deep and 5/16 inch in diameter in a block of untreated wood. Hang your “bee condo” with the holes oriented horizontally at least 3 feet off the ground and facing as close to southeast as possible. Show students how to place some groups of flat rocks in the garden to give ground beetles a place to shelter.

**Leave a little lawn** – Consider maintaining a turf pathway through the garden. Turfgrass is home to beneficial predators such as ground, rove and tiger beetles, and can serve as a spot for mantids, ladybugs and other desirable insects to lay their eggs.

**Learn what the good guys look like** – This is important because we gardeners have a tendency to view any bug as a “bad” bug if we don’t recognize it. Most of us can probably identify a ladybug as a “good guy”, but we may not realize when we find a larger, ferocious-looking, black and yellow creature that it is actually a ladybug larva, bent on gobbling up aphids. And we might not know that the forest of tiny green eggs carried atop hair-thin stalks on a leaf in the garden will hatch out into fat, bristly lacewing larva with large, tusk-like jaws, also devourers of aphids, looking nothing like the delicate, gossamer-winged green adults. There are many books and online resources available to help you learn to identify beneficial insects in all their life stages.