



Urban Harvest

## Please Remember Pollinators when Creating a Garden

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Are honeybees the only pollinators that visit vegetable and flower gardens?

First, a little primer. Pollination is the movement of pollen, which contains the male genetic material, from one flower to another of the same species. Without this transfer, the production of seeds and fruits would be impossible. You may have observed a bee flying from flower to flower with hind legs that resemble large yellow saddle bags that is pollen sticking in a thick layer. So it is no wonder when we think of insects that pollinate our gardens, honeybees are usually the first to come to mind. This European, non-native honeybee, *Apis mellifera*, is the undisputed rock star in the pollinator world, considering it performs 90 percent of the pollination done in managed agricultural areas.

The good news is that there are nearly 3,500 species of native bees and other pollinators in the United States that provide an enormous contribution to the things we eat and enjoy seeing and smelling in the garden. The bad news is according to many experts, they, along with wild bees and all pollinators in general around the world are in serious trouble.



The honeybee, *Apis mellifera* flies flower to flower, gathering pollen in a thick layer with its hind legs.



Why are pollinators so important, and why has there been so much attention paid to them in the last years? More than 75 percent of all flowering plants depend on animal pollinators. Remember - no flowers mean no seeds or fruits. The more than \$100 billion agriculture business producing more than a 100 food crops depends on pollination. Could we imagine a world without chocolate? It, too, has its pollinator.

Even though bees, both non-native and native, get all the attention, other important pollinators include birds, bats and other insects such as butterflies, wasps, moths, beetles and flies.

Pollinators are being affected by disease, parasites, pesticides, invasive competition, changing climate, habitat loss and more. Nevertheless, we can do our part to help them - by providing healthy habitat. In the process, your vegetables and gardens will benefit.

Here are some tips to get you started.

Consider using native plants; they are the best food sources for native pollinator species. Native plants species evolved along with native wildlife species, so one may depend on the other for survival. There are some excellent non-invasive adapted plants that can be useful, but the vast majority of plants should be native.

Design areas that include shrubs and clumping grasses that offer shelter and places to raise young. Many species enjoy the mid-story or understory of the landscape to make their homes.

Plant in clumps. Butterflies, for example, can see a grouping of black-eyed Susans, *Rudbeckia fulgida* 'Goldstrum', easier than a single plant.

Select a variety of plants both in shape and color. Hummingbirds prefer red and orange tubular flowers that allow them to slurp up the nectar with their long, skinny bills and tongues as they unwittingly transport pollen from flower to flower. They enjoy the nectar feeders gardeners set out, but prefer natural sources. When raising their young, hummers fill up on insects that are attracted to native plants.

Include plants that flower at different times of the year so something is always blooming in your pollinator habitat. Check plant information for bloom time and plan accordingly. Remember to plant a variety of species to promote a diverse plant and pollinator population.



Include plants that flower at different times of the year, such as this broccoli that's gone to flower, so something is always blooming in your pollinator habitat.



Angel's Trumpet, *Brugmansia* spp., is a night-blooming plant that relies on bats and moths for pollination.

Add night-blooming plants, which rely on bats and moths for pollination. One of my favorites is Angel's Trumpet, *Brugmansia* spp., that rewards us with an exotic fragrance during the evening hours.

Avoid pesticides, herbicides and synthetic fertilizers. Many of the pesticides are broad spectrum and kill the beneficial species along with the pests. Herbicides and synthetic fertilizers interrupt or permanently kill the microorganisms found in healthy soil that many wildlife species depend on for food.

Provide a water source. Shallow birdbaths or ponds work well. Mud puddles or small saucers filled with sand and water give pollinators a drink and necessary minerals.

Wait for garden cleanup. Allowing some vegetables and herbs to go to flower gives pollinators a reason to hang around to assist your next crop. In the fall, leaving dead plant stalks offers winter protection and places for hibernation for many pollinator species. Some resources include the Pollinator Partnership, [www.pollinator.org](http://www.pollinator.org) and the Xerces Society [www.xerces.org/pollinator-conservation](http://www.xerces.org/pollinator-conservation).

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