

## Getting to Know and Help Pollinators

By Kate O'Lenic, Master Gardener

Butterflies and bees are well-known pollinators in our gardens. But there are other insects and small animals that perform the critical function of pollinating our fruit trees, ornamental flowers, and vegetables. Without pollinators, we would lose about 30% of our food, our air would become polluted, our soil would be less stable, we'd have less oxygen to breathe, and wildlife would decline. Obviously, we need to take care of these precious helpers. Let's take a look at who those creatures are and what we, as gardeners, can do to help them and us.

A pollinator is anything that moves pollen from the male part of a flower to the female part. Bees, butterflies, wasps, moths, beetles, and flies act as pollinators. Small animals, such as birds and bats can also be pollinators when they contact flowers in the process of looking for food, water, shelter, or nesting materials. With that in mind, let's consider the basics and how to provide a safe environment for each of them and their life stages.

### Food

Butterflies and moths need food for themselves and their larvae. Native flowering plants provide the nectar butterflies, moths and bees need. We emphasize native plants because they provide the correct nutrition for our native pollinators. One reason pollinators are disappearing is the lack of their native habitats and food they rely on. When shopping for plants or seeds, be sure plants have been cultivated without neonicotinoids, which includes imidacloprid, thiamethoxam, clothianidin, dinotefuran, and acetamiprid. Also check the label on the plant container. The resources at the end of this article have great information on plant selection and more. Also, learn about integrated pest management (IPM) to reduce or eliminate the use of herbicides and pesticides at: "An Introduction to Integrated Pest Management"  
<https://extension.tennessee.edu/publications/Documents/SP503-D.pdf>

To be most helpful have large groups of like colors together and have plants that bloom at different times. This ensures there is a nectar source through spring, summer, and fall. Consider plants of different heights for visual impact. Planting at least three plants of each variety will provide incentive for pollinators to visit your garden. Color is also an important consideration. Bees prefer white, purple, blue, and yellow flowers of different shapes. Butterflies are attracted to orange, pink, white, purple, yellow, and white flat-topped flowers.

To feed larvae you will need to accept that they will be eating your plants. The good news is they will grow into beautiful pollinators. Many larvae love to munch on herbs and vegetable crops. Plant extra ones to feed the larvae. If you have an appropriate spot that isn't mowed, consider native clover in an area. It provides both nectar and food for larvae.

Lawns are considered deserts by many pollinator-lovers. The carefully manicured, weedless lawn provides nothing for our insect friends. For a more interesting and beautiful home, reduce lawns by replacing areas with pollinator gardens. You'll love seeing the birds, butterflies and bees among the flowers, trees, and shrubs. For even more benefit, use trees, shrubs and other plants that produce fruit after flowering for a very valuable source of food in the fall and possibly winter.

### Shelter, Habitat & Nesting

Natural elements for shelter, habitat, and nesting sites have several benefits compared to some artificial, purchased options. Natural elements breakdown naturally and avoid parasite and disease infestations. Using natural components also reduces landfill waste. For example, leave hollow-stemmed plants for bees to overwinter in. Provide bare ground for ground-dwelling bees and wasps. Leaf litter is a great place for insects to overwinter. Leave the leaves. You can rake them into the garden or let them gather in corners or along walls.

Plant shrubs and trees for layers of shelter and nesting sites. Some birds nest in dense shrubs rather than tree branches.

Brush piles provide shelter, safety from predators and nesting areas. Place near a wooded border, edges of the yard, or near bird feeders. You can hide them with a shrub border if needed.

Protect potential nesting and shelter areas from the wind. Block the wind with trees or shrubs or structures.

### Water

Insects, birds, and other creatures that help with pollination need a reliable source of water. Add bird baths, small ponds, or water gardens to your landscape. Locate them in a shaded area to help keep water cooler during the summer.

There are so many ways we can help pollinators make a comeback. And there are excellent resources for gardeners who want to make a difference. See the resources below for more details about which plants are preferred and how to create an environment that supports nature.

### **Resources**

“What is a Pollinator?” <https://www.nps.gov/subjects/pollinators/what-is-a-pollinator.htm>

“Pollinator Basics,” <https://extension.umd.edu/resource/pollination-basics>

“Landscaping to Attract Butterflies and Moths,” <https://extension.okstate.edu/fact-sheets/print-publications/hla/landscaping-to-attract-butterflies-and-moths-hla-6430.pdf>

“Managing Wildlife Around Your Home,” <https://extension.tennessee.edu/publications/Documents/PB1868.pdf>

“Planting for Pollinators in East Tennessee,” <https://extension.tennessee.edu/publications/Documents/W1095.pdf>

“Gardening for pollinators: Smart plants to support pollinators,” [https://www.canr.msu.edu/uploads/resources/pdfs/plants\\_for\\_pollinators.pdf](https://www.canr.msu.edu/uploads/resources/pdfs/plants_for_pollinators.pdf)

“Selecting Plants for Pollinators, A Regional Guide for Farmers, Land Managers and Gardeners in the Central Appalachian Broadleaf Forest,”

<https://pollinator.org/PDFs/Guides/CentralAppalachianrx7FINAL.pdf>

**How do I ask a question?**

If you have a question for the Master Gardeners, submit them to us on our website at [www.netmga.net](http://www.netmga.net). Click the link at the top of the page, “ASK A MASTER GARDENER” to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.