

At Home With Pollinators, A Gardener's View

By Mary Powell

Springtime! You're ready to fill containers at your front door or on your deck. Or maybe you're planting a vegetable garden. Or your new home needs landscaping.

You drive to your favorite garden store or nursery to look for flower and vegetable seedlings, shrubs or trees. You find tomatoes, parsley, peppers and two rose bushes for that sunny spot off the patio.

And because you've heard that bees are in trouble, you make sure to include some bee-friendly salvia and sunflowers.

Caveat Emptor! Buyer Beware! Those plants have been pre-treated with a nicotine-based pesticide highly toxic to bees and other pollinating insects. There is no way for you to know because the label says nothing about this treatment. In fact, the tag on the plant may even say "bee-friendly" or "attracts butterflies and bees" and include a smiling bee.

Big-box stores and many local nurseries now use a long-acting pesticide, neonicotinoid, as a soil drench, which is taken up systemically in the plants' vascular system, making all parts poisonous—leaves, pollen and nectar. Neonics, as they are called, can kill bees. In a sub-lethal dose, this neurotoxin can impair their navigation, immunity, and learning. Hives are found empty. Bees can't find their way home.

In 2013, plants across the country were tested in an independent lab and results were published in August of 2014.

Here are some of the documented findings:

1. One application to plants lasts beyond a season. Measurable levels of residues were found in woody plants up to 5 years later.
2. Untreated plants can absorb residues from the soil where treated plants previously grew.
3. Neonics are toxic to all bees, commercially raised honeybees and native bees.

And you face another problem at the store. Many plants come from other countries. They are often the ones we grew to love at grandma's house—the iris or the peonies. The Japanese crab, flowering Dogwood or the English yew. Their neat foliage provides anchors to our landscapes and need little care. But these exotics are not native to North America and did not evolve for millennia alongside this continent's insects. They

"Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world."

— Archbishop Desmond Tutu



Mary Powell harvesting vegetables from her garden. On September 23 she wrote an email with current news of the pollinators in her yard in Topeka: "Some thirsty migrating Monarchs on our Asters, zinnias and tropical milkweed! Bees on hyssop, oregano, basil blossoms, goldenrod, rose verbena. Hope you're seeing some too. We have too much shade but although not perfect, providing some energy sources. We can help by Planting milkweed. Planting nectar sources."

provide no foliage for baby caterpillars to eat or flowers with nectar for our butterflies to drink. No pollen for bees to take back to the hive to feed their young.

Your neighborhood, like others, used to be a prairie or woodland with acres of wildflowers, shrubs, vines and native grasses—a diverse habitat of plants, insects, birds and other wildlife. But now, your yard is likely a green expanse of an alien grass which depends upon herbicides, pesticides, fungicides, high-nitrogen fertilizer, frequent irrigation and manicuring with noisy, polluting fossil fuel-powered machines designed to mow, remove clippings, blow or vacuum leaves, and aerate soil in the absence of earthworms.

Instead of edging our lawns with rare plants from Asia, we need to bring back the native trees, shrubs and perennials. Do we need those scentless easy-care roses which pollinators fly right by? Or pear trees manipulated to be fruitless with shiny leaves that butterflies ignore?

Or can we start to think of our land, yards and gardens as edible landscapes? A wildlife banquet of leaves, such as a black willow or spicebush for the Eastern Tiger Swallowtail. Or a variety of pollen/nectar-rich colorful flowers for our native bees, butterflies and hummingbirds? Not a sterile quiet landscape; but places that vibrate and hum with life! Plant to feed our hard working pollinator friends in the growing season. And protect

them in the winter by leaving them alone. Don't rake up the chrysalis sleeping in the leaf litter at the base of that hackberry tree.

Native flora restores the bottom of the food chain—food that insects need to eat and thrive. Plant it and they will come. And our beloved birds will follow. We can all make a difference in restoring our battered ecosystem and support biodiversity in the Midwest and beyond.

How can you help?

1. Plant natives — a variety of flowering plants for nectar, pollen, seeds, and leaves.
 - a) If your house stands next to a field, convert an acre or two —or more—to native wildflowers.
 - b) Encourage businesses and industrial parks to keep prairie landscapes intact or include native plants in landscape plans.
 - c) Partner with state and county agencies about best mowing and spraying practices. AOK has worked for years to change mowing habits along roadsides, which can showcase 150,000 acres of grassland beauty along state highways in Kansas alone.
2. Avoid unnecessarily using pesticides, herbicides, treated seeds and plants.

- a) Be discerning where you buy flower starts.
- b) Make sure they are third-party certified organic or untreated. (99% of GMO corn, soybeans and canola are treated with neonics).
- c) Nurseries that specialize in native plants generally do not sell treated plants and seeds.

3. Assist native bees—bumblebees, blue orchard, mason, etc.— by providing areas of sunny bare soil for nesting. Avoid mulching everywhere. Leave hollow plant stalks for them to overwinter eggs.

4. Avoid flowers with double blooms that have little or no pollen or nectar.

As more and more prairie habitat gets sprayed with herbicides or falls under the plow for cultivated crops, shopping malls and other development, what we grow on our land, in our yards and gardens makes all the difference.

As Douglas Tallamy said in *Bringing Nature Home*, “Like it or not, gardeners have become important players in the management of our nation’s wildlife.”

Photos by Dr. Ben Franklin



***“To cherish
what remains
of the Earth
and to foster
its renewal is
our only
legitimate
hope of
survival.”***

— Wendell Berry

