Preserving Our Pollinators

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I love the insects that populate my backyard. I'm not above plopping down on the grass and peering closely to watch a bumblebee browse the clover.

Bees come in all sizes. Some are solitary, some live in hives. Some are imported, such as the European honeybee, some are wild. Honeybees alone are responsible for pollinating a third of our most important crops, like corn and canola. God has given such a big task to these tiny insects!

But in the last few years, bees have been dying by the millions. This is most evident in the population of cultivated honeybees. Scientists attribute the deaths to a condition called Colony Collapse Disorder (CCD).

Where I live in northern Indiana, farmers rent honeybee hives for pollination. Unfortunately, pesticides that both farmers and homeowners use to protect their crops may be damaging their insect helpers. U.S. and European scientists linked a group of pesticides called neonicotinoids to CCD, though they are not the sole cause. A systemic pesticide, neonicotinoids persist in the plants' structures themselves, including flowers. Pollinators looking for nectar then absorb the pesticide into their bodies. Neonicotinoids act as neurotoxins, damaging the bees' brains and making them less likely to find their way back to the hive. Up to 94 percent of the corn seeds in the U.S. are treated with these pesticides.

Neonicotinoids may be just part of the problem, however. Researchers suspect that a whole constellation of issues—other pesticides, loss of habitat, loss of specific native plant species—all contribute to bee deaths. While scientists search for answers, you and I can also get involved in helping preserve our pollinators. Like the bees, we are also exposed to these pesticides (and many others) through the food we eat. It benefits us to reduce the use of these pesticides or at least require safer use of these substances.

One obvious way to preserve our pollinators is to avoid using chemical pesticides at home. Be aware of the substances you are introducing into your atmosphere. (See the Resources sidebar for a link to a list of pesticide brand names.) For instance, the typical American lawn soaks up a lot of chemicals to stay green and pristine. Switch to organic solutions for weed or pest control inside and outside.

When preparing your garden, choose nectar-bearing plants. If you have just a small yard or even just a balcony, make room for some blooms. Plant flowers that span the seasons, spring to fall, when bees are the most active. Simple flowers such as crocus and hyacinth, daisies, sedum, coneflowers, bee balm, goldenrod, and blazing star make it easy for bees to access nectar. Try container flowers such as begonias, single impatiens, geraniums, salvia, and chrysanthemums. Try to source plants from organic growers or start them yourself from organic seeds, which are widely available now in stores and independent seed companies.

Preserve pollinators by supporting sustainable farming practices. You don't have to be a farmer. Most of us already have pesticides residing in our body tissues—they are that prevalent. Over the years, I've gradually identified some trustworthy local sources for my food that don't use pesticides, from organic strawberries to fresh bakery bread. I've also tried to find ways to reduce the amount of pesticides I'm exposed to when I do buy conventionally produced food or other products that go on or in my body, such as cosmetics. I can't always find organic or natural options, but I buy them when they are available.

Unfortunately, with the worldwide use of pesticides, we can't completely avoid them. I think the bees are sending us a message, though: their relationship with their food source has been disrupted. Could we be facing a similar disruption in the future?

Perhaps it's time for us to pay attention to the bees. ■

Resources

For general information about honeybees, check out this beautiful article on the National Geographic website: animals.nationalgeographic.com/animals/bugs/honeybee.

This article in the *New York Times* explains more about the research into neonicotinoids and their effects on bee populations: nytimes.com/2012/03/30/science/neocotinoid-pesticides-play-a-role-in-bees-decline-2-studies-find.html?_r=0.

This site lists common brand names of pesticides containing neonicotinoids: urbanbeeprojectseattle.com/pesticidestory.

The Environmental Working Group has useful guides to help people avoid pesticides at home and in many products: ewg.org.

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