

Do You Make This Bee-Killing Mistake?

You may be accidentally sabotaging these little pollinators — even while trying to protect them. In Europe, it's less of an issue, but in the US, this single mistake could be doing more harm than good. Be careful, know what to choose, and what to avoid.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Bee populations are in severe decline due to a variety of factors, including the widespread use since the early 1990s of neonicotinoid pesticides
- Honeybees are pollinators of at least 90 commercially grown crops in North America. Pollinators transfer pollen from plant to plant, insuring the plants make seeds and reproduce
- The EPA and USDA are heading up a U.S. task force to address the problem of declining populations of bees and other pollinators, but food safety experts warn that more needs to be done to root out key culprits, including pesticides
- Over half the plants sold by popular home and garden stores in the U.S. and Canada contain neonicotinoids. People who bring these plants home to put in their garden — often to encourage bees and other pollinators — are inadvertently contributing to the problem
- Experts recommend planting bee-friendly native flowering plants that have not been treated with neonicotinoid pesticides

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The federal government, led by the Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA), has made efforts to address the problem of disappearing honeybees due to colony collapse disorder, and shrinking populations of other pollinators as well.

Bee populations have been in dramatic decline in recent years due to a variety of factors, including pesticides, mite infestations, and loss of genetic diversity. The number of managed honeybee colonies in the U.S. has plummeted from 6 million hives in the late 1940s to just 2.5 million today.

Loss of Pollinators Means Loss of Food Security

According to a White House Fact Sheet:

*"Pollination is integral to food security in the United States. Honeybees enable the production of at least 90 commercially grown crops in North America. Globally, 87 of the leading 115 food crops evaluated are dependent on animal pollinators."*¹

Bees, birds, butterflies, bats, and insects transfer pollen from plant to plant, which allows the plants to make seeds and reproduce. Simply put, pollinators ensure that humans have fresh food to eat.

Pollinators are also extremely important to the U.S. economy, contributing over \$24 billion, of which more than half is from honeybees alone and their vital role in the growth of fruits, vegetables, and nuts. In fact, almond crops depend exclusively on bees for pollination, and in California, the almond industry is in jeopardy. According to the White House:

*"The problem is serious and poses a significant challenge that needs to be addressed to ensure the sustainability of our food production systems, avoid additional economic impacts on the agricultural sector, and protect the health of the environment."*²

EPA/USDA Task Force Directive Doesn't Go Far Enough to Address Colony Collapse Disorder

A presidential memorandum from June 2014 calls for the creation of a task force and a "National Pollinator Health Strategy" to better understand and develop plans to help recover losses to pollinator populations.³ One of the jobs of the task force is to develop strategies for enhancing pollinator habitat, along with creating educational materials for individuals and businesses.

In response to the memorandum, the Center for Food Safety (a consumer group) said the task force is a step in the right direction, but more action is needed to address the issue of colony collapse disorder.⁴

"We need to delve deep into the problem and root out key culprits, starting with pesticides," said Larissa Walker of the Center.

Are You Unknowingly Killing Bees in Your Own Yard or Garden?

According to Friends of the Earth (FOE), a study reports that 36 out of 71 (51%) garden plants purchased at home improvement stores and popular garden retailers in 18 cities in the U.S. and Canada contained neonicotinoid pesticides.⁵ This class of pesticides has been identified as a key contributor to the decline of bee populations.

*"Some of the flowers contained neonic levels high enough to kill bees outright assuming comparable concentrations are present in the flowers' pollen and nectar," says FOE. "Further, 40% of the positive samples contained two or more neonicotinoids."*⁶

Neonicotinoids are basically nerve agents, similar to nicotine. Plants absorb the chemicals in the pesticide into their cells, which renders every part of the plant toxic to insects, including the roots, stems, leaves, flowers, and pollens. The fruits or vegetables produced by the plants are also toxic to pollinators.

You and Your Family May Also Be Ingesting These Toxins

Neonicotinoid pesticides became popular in the early 1990s because they were presumably much safer than DDT pesticides, and they were also effective. Tim Brown of the Pesticide Research Institute and co-author of the FOE report told Discovery News:

*"Neonics are not acutely toxic to humans, which has allowed them to not go under very close investigation. But we need to understand the cumulative effects on humans."*⁷

According to Brown, neonics are found not only in the plants, but also in minute amounts in the fruits and vegetables they produce. There's an expected cumulative effect when pesticides are consumed in so many different foods.

What You Can Do to Make a Difference

The European Union has banned the use of neonicotinoids on flowering plants and crops. However, in the U.S., organizations like FOE and others are trying to raise awareness at retailers like Home Depot and Lowe's, hoping to spur them to action without direct legislation.

Home Depot is working with its suppliers to obtain plants that have not been treated with neonics to test how well they survive at their stores. The company also now requires its suppliers to label plants that have been treated with neonics.

If you plant flowers around your home or have a garden and want to help out our little pollinator friends, FOE recommends planting bee-friendly flowers that you are confident have not been treated with neonicotinoid pesticides on either the plants or the seeds they were grown from. Choose native flowering plants from your local area, or plant clover, alfalfa, or other flowering cover crops that replenish soil nutrients and prevent erosion.

And of course you'll also want to avoid pesticides containing these neonics: Acetamiprid, Clothianidin, Dinotefuran, Imidacloprid and Thiamethoxam.

Sources and References

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[PawNation June 26, 2014 \(Archived\)](#).
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³ [WhiteHouse.gov, Presidential Memorandum, June 20, 2014 \(Archived\)](#).
⁴ [Food Safety News June 24, 2014](#)
⁵ [Gardeners Beware Report 2014 \(Archived\)](#).
⁶ [Friends of the Earth/Bee Action Campaign](#)
⁷ [Discovery News June 25, 2014 \(Archived\)](#).
