



# HEALTHY PLANTS MAKE FOR HEALTHY BEES

Building healthy habitats for bees and other pollinators is crucial. Bees have a symbiotic relationship with flowers, plants, trees, and shrubs. For example, bees consume pollen and nectar from flowers as food. Bees then take the pollen from one flower and share that pollen with neighboring flowers, continuing the cycle of healthy reproduction. Neither would be able to survive without the other. It is one of the most important partnerships found in nature.

Grounded in science and a passion for sustaining the earth, our organizations fund, promote, and share horticulture research. We believe in growing healthy bee habitats, one plant at a time. Consumers have a role to play, too, and can contribute directly to bee health by buying and planting bee-friendly plants. And, after planting, they can maintain the health of plants and pollinators through the responsible use of fertilizers and pesticides. A lush and beautiful garden benefits every person and every pollinator.

## Advocates for Bee Health

Professional growers of trees, plants, and flowers have been stewards of the environment and champions of sustainable practices for generations. We know and grow plants. They are our passion. We work to provide the best plants and information to use in your garden and yard. With the knowledge and influence of 16,000 farms and businesses, we are a part of the solution and a positive influence on bee health. With our members, we use our experience to:

- Increase the quality and diversity of plants
- Improve the diversity and vitality of landscapes
- Protect and enhance the environment

An integral part of our mission is to support and advocate for bee health. We are bringing together industry-leading horticulture and pollinator groups to conduct important research studies to identify which plants are the best pollinator forage sources at different times of the year. Research also informs us when and how to best apply pesticides and when to avoid their use.

As we continue to research the specific factors that harm or help bees and pollinators, we are certain that the best way to support them is to plant healthy pollinator-friendly plants, creating desirable habitats where they can feed and forage. Once these habitats are established, it is imperative to maintain and keep them thriving through the correct use of water, nutrients, and careful pest management.

## A Busy Job: Why Are Bees Necessary?

Bees pollinate some of our most nutritious foods, such as fruits, nuts, and vegetables. They pollinate approximately 33 percent of the country's crops, and account for about 80 percent of all pollination in nature. Given the critical importance of bees, recent challenges to their population and overall health are very serious concerns, particularly for the horticulture industry. If bees disappeared, so would apples, almonds, blueberries, cherries, avocados, cucumbers, onions, grapefruit, oranges, and pumpkins.

## What's Bugging the Bees?

Bees are an extremely complex species and the factors impacting bee health are equally complex. A growing body of research and scientific evidence points to many factors that can adversely affect bee health, including:

- Parasites like Varroa mites
- Stresses from colony management
- Viruses
- Bacteria
- Poor nutrition
- Genetics
- Habitat loss
- Improper use of pesticides

## Attracting More Bees. The Solution Is Yours To Grow.

**Bees, butterflies, and other pollinators thrive in healthy, abundant habitats. The best way to grow a flourishing home for pollinators is to add plants and flowers to your landscape that are known pollen and nectar sources. Choose an array of plants that will provide pollen and nectar throughout the growing season. Some bee favorites include lavender, thyme, sunflowers, marigolds, and goldenrod. You can grow plants in the ground around your home, in planters if you live in a more urban setting, or spearhead a community garden or neighborhood planting project.**

After planting, keep plants and flowers healthy through proper watering and nutrition. Choose the gentlest options for managing pests, and watch labels carefully for guidance on protecting pollinators. Consult your garden center, nursery, or greenhouse for expert advice.

A water feature can be a beautiful addition to your garden, providing bees with a clean, year-round water source. For bees, a little bit of water goes a long way.

**If you're looking for the most up-to-date, accurate information, please visit [www.growwise.org](http://www.growwise.org)**

## The Buzz About Bee Health

There is no question that horticulture is beneficial to bees and pollinators. After all, the best way to support bees is to plant healthy and bee-friendly plants. Professional growers of tree, plants, and flowers provide the very thing pollinators need to thrive: diverse and ample sources of forage. Although the improper use of many pesticides can harm bees, a growing number of highly credible independent studies indicate that pesticides, when used properly, are not the cause of widespread bee health issues.

In fact, the USDA's 2013 report on bee health listed pesticides near the bottom of a long list of factors impacting bee health. In addition, recent reports from the Australian Government's Pesticides and Veterinary Medicines Authority, which is the equivalent of the US EPA, support the conclusions of the USDA. This respected organization cited that even though neonics are used in Australia, they have not experienced the same bee health issues seen in both the US and Europe.

## Big Impact on Plant Health. Low Impact on the Environment.

Some consumers wonder if a particular class of pesticides known as neonicotinoids kills bees. Although the improper use of any pesticide, including neonics, can harm bees, horticulture professionals use them in controlled, appropriate, specific, and responsible ways. Neonics have a big impact on plant health and a low impact on the environment.

Pesticides are used as part of Integrated Pest Management (IPM) programs, which put focus first on preventative cultural practices, the use of beneficial insects (such as ladybugs and ground beetles), thorough and frequent inspection for signs of plant pests and diseases, and, finally, judicious use of pesticides.

Why are neonics an important tool? When applied in compliance with EPA-approved labels, neonics are a safer alternative for consumers, professional applicators, and the environment than older, broad-spectrum pesticides. They require fewer applications than other products. They have been studied extensively and found to be useful yet low in toxicity, which is why they are commonly used in and around homes and on pets.

Without these products, trees and even entire forests could be devastated by the emerald ash borer, Asian longhorned beetle, hemlock woolly adelgid, and other invasive pests. Neonicotinoids work very well in fending off the invasive and often chemically-resistant whitefly species as well as the Asian citrus psyllid, which spreads a bacterial disease that wipes out orange trees. When used properly, pesticides like neonics contribute to establishment and maintenance of healthy and diverse plants and landscapes.

## Stay Informed. Share Information.

Ask your local garden center, nursery, or greenhouse to help you find the best bee-friendly plants to grow, as well as how to care for them with the right products and practices. By keeping informed of the best growing practices for your garden, and sharing information with family, friends, neighbors, and homeowner associations, you can continue to be a part of the solution. Your hard work will make something beautiful for you to enjoy, increase your home's value, and contribute to a better environment for future generations.

Keep growing healthy bee habitats. One plant at a time. Our bees will thank you, our nourished bodies will thank you, and our planet will thank you.



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PROMOTING HEALTHY HABITATS.



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