

# Bee Careful, Those Critters Might Be More Important Than You Realize

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Recently there has been a lot of buzz about honey bees. Honey bees, *Apis mellifera*, are not native to the Americas. They were imported hundreds of years ago to provide sweet honey for colonists who made the move from Europe.

Recently, honey bees have come under a great deal of stress due to a relatively new malady called colony collapse disorder (CCD). First reported in 2006, CCD is characterized by a sudden disappearance of most of the worker bees in a hive, leaving only the queen and a few attendants. Some commercial bee keepers sustained losses up to 90 percent of their hives.

Honey bees are one of the important pollinators that we as a species depend on for many of our favorite foods. Honey bees work cheap. They will work virtually non-stop just for a bit of nectar and pollen.

In fact, they literally work themselves to death. There are no holidays or time off, just the fact that after as little as four weeks, their wings become so battered that they literally fall out of the sky and perish from the punishing schedule they keep. It has been estimated that honey bees fly 55 thousand miles in order to make just one pound of honey.

Honey bees have been considered so important that they have been designated as the state insect in 18 states. Every time we bite into an apple, almond, cherry, squash or virtually any other fruit, a honey bee has been involved with its pollination. Other crops benefit as well; clover and alfalfa are among bee favorites. It has been estimated that honey bees have an impact on agriculture that exceeds \$200 billion annually.

While honey bees are an important cog in our agricultural machine, they are actually very delicate creatures. Their immune system is under powered when compared to other insect species. As such, they are extremely susceptible to the pesticides we routinely apply. Some of the more egregious pesticides include the neonicotinoid class such as imidacloprid, thiamethoxam and clothianidin. These chemicals act on the insect's central nervous system to cause paralysis and eventually death. Honey bees are susceptible to their actions.

How can you lessen the impact of these and other compounds on the honey bee population? When possible, don't apply pesticides to plants that are in bloom, especially those that the bees are actively visiting. If feasible, use other methods rather than pesticides to control pests. Integrated pest management (IPM) is a common sense practice that can help. If you must apply a pesticide, always read the label and choose those chemicals that are less toxic to honey bees. The label will also provide information about how to apply so that you are not directly affecting the bee population.

Another way to help is to provide suitable resources for the bees to flourish. Lawns are akin to a desert as far as the bees are concerned. We crop our grass short and clean; nothing is left to flower. A good compromise might be to plant some clover in the yard and mow the grass at the highest mower setting. Or, you might stagger the mowing of the grass to allow parts of the yard/pasture to flower.

Learn how to keep bees. I have found beekeeping to be a rewarding endeavor. You won't get rich doing it, but you will gain a great appreciation for how important this small, but fierce, creature really is.  $\Delta$

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