

## **Bee Death Study Clears Bayer's Insecticide as Sole Cause**

by [Alan Bjerga](#)

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(Bloomberg) -- A widely used insecticide developed by Bayer AG and tied to deaths of honeybees isn't the main cause of the fatalities, University of Maryland researchers said in a study that may weaken arguments used by environmentalists seeking to ban the chemical.

The insect-killer, imidacloprid, when applied at "realistic" levels doesn't harm honeybee colonies, according to the three-year study published Wednesday in the peer-reviewed journal PLOS ONE.

"It's not the sole cause," said Galen Dively, an entomology professor at Maryland's College Park campus and lead writer of the study. "It contributes, but there is a bigger picture."

The chemical may add to stresses such as malnutrition and parasites in causing higher death rates in commercial colonies in the past decade, according to the study.

The pesticide, made by companies including Syngenta AG, Valent USA Corp. and Arysta Lifescience Ltd., is among chemicals known as neonicotinoids, which are similar to nicotine. Environmental groups want the government to ban them because of a possible link to bee deaths, known as Colony Collapse Disorder. The European Union suspended imidacloprid's use in 2013, citing effects on pollinators.

The study was funded by the university, federal agencies and a nonprofit set up to promote health by the American Beekeeping Federation.

## Field Research

Becky Langer, manager of Bayer's North America Bee Care Program in Raleigh, North Carolina, said the research supports the company's findings on the chemical's toxicity. The Maryland study is important because of its extensive field research, which poses advantages over laboratory studies in understanding real-world bee stresses, she said.

The study is at odds with other findings on the role pesticides play in honeybee deaths, studies that led the EU to ban neonicotinoids, said Tiffany Finck-Haynes, an advocate with Friends of the Earth, an environmental group based in Washington and Berkeley, California.

The Bayer chemical is part of a class of pesticides "that are a leading driver of bee declines, and we need to take action," she said. "The body of science is there."

## Apricots, Zucchini

Bees pollinating plants from apricots to zucchini help to increase crop values by \$15 billion a year, according to the U.S. Department of Agriculture. Lawmakers have sought to help pollinators stem any losses as colonies die, while environmental groups urge more regulation of pesticide-makers such as Bayer, Syngenta AG and Dow Chemical Co.

In the study, Dively and colleagues from the the university, the Environmental Protection Agency -- which oversees pesticide use -- and the USDA fed pollen doused in the chemical to honeybee colonies for as long as 12 weeks, exceeding the typical exposure.

The study is the first to rely on such field data to find any connections between waning populations and the chemical, said Dennis vanEngelsdorp, an entomology professor at the University of Maryland, who wasn't involved in the study.

Companies from Hershey Co., maker of Almond Joy candy bars, to Burt's Bees lip-balm producer Clorox Co., rely on pollinated crops. More than half the nation's commercial bees are needed to pollinate one crop: the \$6.5 billion annual harvest of almonds, the nation's most lucrative nut.

Bee deaths reached alarming levels about 2006, when scientists identified Colony Collapse Disorder, a syndrome without a known cause in which disoriented bees fail to find their way back to their hives and die. Beekeepers since then have reported losing roughly a third of their colonies each year -- up from 15 percent in previous years.

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