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BARNYARDS & BACKYARDS

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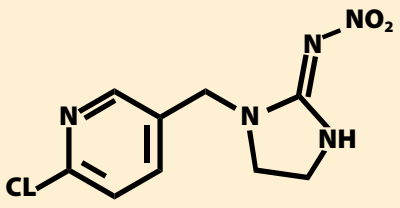
USDA

How to minimize pesticide risk to pollinators

Jeff Edwards says READ the label

If a pesticide is considered organic, can it kill bees and other beneficial insects? This might be an eye-opener for some, but organic production does not mean pesticide-free. And neonicitinoids, which are used to kill insects, have caused bee kills and been blamed for poor bee health.

The name neonicotinoid literally means "new-nicotine." This class of products is derived from nicotine, and nicotine by itself is considered an organic pesticide. How can an organic substance be a pesticide? By definition, any product – organic or not – used to kill or control a pest is a pesticide.



This is the chemical structure of an imidacloprid (made to mimic nicotine), one of the neoniciti-noids. The chemical structure is that of nicotine, with several elements added to change the chemical structure. Other neonicitinoids on the market are structurally similar.

Beekeeper and biologist Randy Oliver noted, "There is a growing public demand for more environmentally-friendly pesticides, which must be balanced against the real-world needs of agriculture for effective pest control products in order to feed a hungry world." A discussion on the use and need for neonicitinoids is at his website (*bit.ly/scientificbeekeeping*).

Pesticides are useful for the management of a variety of pests across many industries and for homeowner use. The agricultural chemical industry reviews its products and pulls them from the market if the environmental risks outweigh the benefits to society.

Products to control insects are labeled with instructions for using the product responsibly to minimize the risk to beneficial insects. Problems occur when individuals use pesticides without fully reading and complying with the instructions on the label.

Pesticides are readily available at most big box stores, and anyone can purchase and use them. In 2013, the EPA requested that labels on products that can be harmful to bees and other pollinators be changed to include the "bee box." The bee box on the label is meant to draw attention to the application requirements so pollinators are not exposed or killed.

The new bee icon helps signal the pesticide's potential hazard to bees.

Pesticides protect our food, fiber, and health. Beekeepers use them to keep their hives free of pests that can affect bee health and reduce honey production. Wyoming has been fortunate not to have had any reported bee kills since 2012. Neonicotinoid insecticides have been used by agriculture since 1994 and expanded for use by homeowners in the mid-2000s.

You don't need to be afraid of pesticides, but you do need to have respect for them. If you use any pesticide, read and follow the directions on the label.

Jeff Edwards is a University of Wyoming educator in Lingle. He specializes in rural living and horticulture and conducts the statewide pesticide safety education program. Contact him at (307) 837-2956 or jedward4@uwyo.edu.

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