Pesticides found in 'bee-friendly' garden-store plants

Chemicals linked to bee die-off detected in flowers on sale at major retail stores, including one in Baltimore

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Many supposedly bee-friendly flowers and home garden plants being sold by major retailers have been pretreated with pesticides implicated in bee declines, according to a study by Friends of the Earth and other organizations, including the Maryland Pesticide Network.

The study found that 36 out of 71 plant samples - 51 percent - bought at top garden retailers in 18 metro areas across North America - including 1 in 4 plants from a Home Depot in Cockeysville - contained neonicotinoid pesticides, which research has linked to the loss of managed honeybee colonies and wild pollinators.

The pesticide levels detected in the stalks and leaves of some flowers were high enough to kill bees outright, the study said, assuming comparable concentrations were present in the flowers' pollen and nectar.

Neonicotinoids are widely used as insecticides and are often used to treat the seeds of farm crops. One compound, imidacloprid, is among the top-selling insecticides in the world, the study notes. They are systemic pesticides, which are taken up through the roots and leaves and distributed throughout the plant, including the pollen and nectar. Research has found that even low levels can affect bees, impairing their foraging and immune suppression.

Timothy Brown, co-author of the report from the Pesticide Research Institute, said the data indicate that many plants sold in nurseries and garden stores across the United States and Canada have been pretreated with systemic neonicotinoid insecticides, rendering them potentially harmful to bees and other pollinators.

"Unfortunately, these pesticides don't break down quickly," Brown said, "so these flowers could be toxic to bees for years to come."

Maryland beekeepers reported losing nearly half their hives in the past year, while nationwide one in three hives were lost. Honey bee losses have been linked to multiple factors, especially Varroa mite infestations, but some research suggests that neonicotinoid pesticdes are a major contributor, weakening bees' ability to withstand other stressors.

One of four plants bought from the Cockeysville Home Depot had at least three different neonicotinoids in it, according to Ruth Berlin, executive director of the Maryland Pesticide Network, which participated in the study.

"Maryland consumers often look for 'bee-friendly' plants," Berlin said, "but this new research shows that neonic pesticides are contaminating those very plants, including here in Maryland, making them unsafe for bees."

She and others involved with the study called on retailers to stop selling neonicotinoid pesticides and to get them out of the plants they sell.

Bayer CropScience, one of the leading manufacturers of neonicotinoid insecticides, defended its products, saying more than 100 studies have shown they will not harm bees when used as directed.

“Coordinated attacks by activist groups are actually detracting from evidence-based science pointing to the true stressors to honey bee health,” said Jim Blome, president and CEO of Bayer CropScience in North America.

A Home Depot spokeswoman said the national retailer was following the research into the cause of bee declines. Meanwhile, it is "glad to provide customers with alternative products for their insecticide needs," said Catherine H. Woodling, the company's corporate communications manager. She said the retailer is also working with its plant suppliers to find alternative insecticides and will require suppliers to label all plants treated with neonicotinoids by the end of this year.

Two Maryland garden retailers - Behnke Nurseries, based in Beltsville, and Cavano's Perennials, based in Kingsville - have stopped using neonicotinoids, the groups' report says.