

[Letters] Call to restrict neonicotinoids

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On 28 April 2018 the European Parliament voted for a complete and permanent ban on all outdoor uses of the three most commonly used neonicotinoid pesticides. With the partial exception of the state of Ontario, Canada, governments elsewhere have failed to take action. Below is a letter, signed by 232 scientists from around the world, urgently calling for global action by policy makers to address this issue.

Prof Dave Goulson, University of Sussex, UK

Neonicotinoids: An open letter to policy makers and regulators

Neonicotinoids are the most widely used insecticides in the world, being applied to a broad range of food, energy and ornamental crops, and used in domestic pest control. They are neurotoxins with very high toxicity to insects, a group of organisms that contains the majority of the described life on Earth, and which includes numerous species of vital importance to humans such as pollinators and predators of pests. Neonicotinoids have proved to be highly persistent in the environment, such that significant residues are commonly found in soils, wildflowers, streams and lakes. For example, a recent study in the journal *Science* found neonicotinoids in 75% of honey samples collected from around the world. Hundreds of independent scientific studies have been performed to assess their impacts on beneficial organisms such as bees, aquatic insects, butterflies and predatory beetles.

It is the view of the undersigned scientists that the balance of evidence strongly suggests that these chemicals are harming beneficial insects and contributing to the current massive loss of global biodiversity. As such, there is an immediate need for national and international agreements to greatly restrict their use, and to prevent registration of similarly harmful agrochemicals in the future.

Failure to respond urgently to this issue risks not only the continued decline in abundance and diversity of many beneficial insects but also the loss of the services they provide and a significant fraction of the biodiversity heritage of future generations.

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