

Ban on pesticides to save bees may really do them more harm

Oliver Moody

A ban on pesticides blamed for contributing to a massive decline in Britain's bee population will drive farmers to use chemicals that could be even more harmful to the insects, scientists have warned.

The European Commission voted last week in favour of curbs on the use of three neonicotinoids, which it believes pose a high level of risk to bees. British ministers, who voted against the ban, and the chemical companies that make the pesticides say that the science is still unproven.

Experts on bee health believe that the alternatives to neonicotinoids, which are among the most widely used pesticides in Britain, are more expensive to apply, worse at protecting crops and could be more damaging to bees.

Norman Carreck, science director of the International Bee Research Association, said that the ban would force farmers and growers to resort to older chemicals such as synthetic pyrethroids and carbamates. He warned of a substantial gap in knowledge of the effects the pesticides have on bees.

Pyrethroids, the main alternative to neonicotinoids, are highly toxic to honey bees, but some rely on a "repellency" that keeps the insects away. Little peer-reviewed research has been published on the subtler effects of the chemicals, particularly on wild bees such as the bumblebee.

"We don't know what sub-lethal effects they may have," Mr Carreck said. "Before this ban was proposed, it was proposed that a full environmental impact assessment of the implications of the ban should take place and as far as I'm aware no one has really considered that."

"It may well be that other bee species are more sensitive to these things than honey bees. Honey bees live in vast colonies and we know that they can lose a large number of workers before the colony dies."

Chris Hartfield, horticultural adviser

to the National Farmers' Union, said the ban would set crop protection back ten or 15 years, and that the older pesticides were costlier to use and less efficient because they had to be sprayed on to leaves, whereas neonicotinoids could be applied to seeds.

He warned that there could be serious unintended consequences for the environment. "We should have looked at what the impacts are," he said. "Without understanding what the impacts of the alternative pesticides are, there is no guarantee bees and other non-target insects are going to be any better off."

Lin Field, head of the biological chemistry department at Rothamsted Research, where pyrethroids were invented, said that some important pests, including species of aphid, had already developed resistance to the chemicals. "The neonicotinoids have come in where pyrethroids haven't been working," she said. She also warned that the "repellency" effect supposed to protect bees from pyrethroid poisoning might not be effective all the time.

The British Beekeepers Association (BBKA) is concerned about the lack of scientific evidence behind the older pesticides. David Aston, chairman of its trustees, said that the association was waiting for the final draft of the proposed restrictions, which is expected to be published today, but he was worried that European governments did not fully understand the risks.

"The BBKA's principal concern is whether a full risk and impact assessment had been undertaken on the potential products, and which may have to be used instead of the systemic neonicotinoids before the move to seek a restriction in use of the neonicotinoid products was sought," he said.

The Department for Environment, Food and Rural Affairs said that the licences for all pesticides were reviewed at intervals of a maximum of ten years, and that all the products currently in use had been subjected to the same testing as neonicotinoids by chemical companies.