Reports spark row over bee-bothering insecticides

Pesticide manufacturer brands risk assessment 'hurried and inadequate'.

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Three reports by Europe's food-safety body have stoked controversy over the possible links between the use of neonicotinoid insecticides and declining bee populations. One leading insecticide manufacturer has attacked the reports, calling them "hurried and inadequate".

Bee on a flower

Fergus Gill/2020VISION/naturepl.com

Bees may be at risk from pollen containing neonicotinoids

A number of scientific studies have linked neonicotinoids to adverse effects on bee colonies (see *Nature* video) but some researchers believe that the drop in bee numbers seen in the United States, Europe and elsewhere is attributable to a combination of factors.

Honey trap

The latest assessments from the European Food Safety Authority (EFSA) in Parma, Italy, are based on existing studies of three neonicotinoids: clothianidin, imidacloprid and thiamethoxam. The reports conclude that these chemicals should be used only on crops that are not attractive to honey bees, so that the insects are not exposed to the insecticides through pollen and nectar. Dust and plant sap contaminated with the chemicals may also pose a risk to bees, says the EFSA.

The EFSA is an independent advisory body, and any ban or restrictions on the use of the three chemicals would require legislation by the European Union (EU) or individual nations.

The work has attracted fierce criticism from John Atkin, chief operating officer at thiamethoxam manufacturer Syngenta, which is based in Basel, Switzerland. In a statement, Atkin said, "It is obvious to us that EFSA has found itself under political pressure to produce a hurried and inadequate risk assessment, which even they acknowledge contains a high level of uncertainty. Their report, compiled in under three months, has not taken account of the comprehensive scientific studies that preceded the launch of neonicotinoids, and many years of extensive monitoring in the field."

EFSA did not respond to Nature's enquiries concerning these allegations.

Data gaps

The European Commission welcomed the EFSA's assessments. The conclusions "are somewhat concerning when it comes to the potential impact of these particular products", a commission spokesperson said, but "there are still many shortfalls in the scientific data that were analysed".

Some EU member states are already scrutinizing neonicotinoids. In the United Kingdom, for example, the Department for Environment, Food and Rural Affairs (Defra) has commissioned field studies on the impact of the insecticides on bees. "If it is concluded that restrictions on the use of neonicotinoids are necessary, they will be brought in," the agency said in a statement.

Bayer, a chemical company based in Leverkusen, Germany, which manufactures imidacloprid and clothianidin, said in a statement that it does not believe that the EFSA's reports "alter the quality and validity" of previous risk assessments by the EU and member states that have permitted the use of its products. The chemical company pins most of the blame for bee declines on parasitic *Varroa* mites.



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