

Society of Biology

Reaction to the EU ban on neonicotinoids

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Insect pollination is vital for the productivity of many crops, including beans and soft fruit, and for certain wild flowers. Native bee species are an integral component of our fauna and as such we should protect them.

The reasons for the decline of bees are many and complex, including disease and lack of forage. Research is essential to establish the causes of this decline and to guide policies to reverse it. Decisions on introduction, banning and use of agricultural chemicals must be informed by sound scientific evidence. The reviews called for and underway across Government departments, research agencies and advisory groups are a sensible, welcome and overdue response to the current level of uncertainty. A lack of adequate and stable investment in agricultural research and environmental monitoring leads to periodic crises where insufficient evidence is available to make necessary policy decisions. This inevitably leads to controversy, with potentially negative impacts on farmers and the environment, and reduced public confidence in the regulatory process.

The determination to protect pollinating insects is to be applauded, but the extent to which the ban on neonicotinoids will protect pollinators is extremely uncertain. There are a range of possible outcomes that may follow the ban. Pest populations may not respond immediately to the change in pesticide use, farmers will use alternatives, and so it could be some time before we know whether negative impacts on crop health and yield emerge.

We urge regulators and researchers to ensure studies are conducted to identify and quantify outcomes of the ban, both adverse and beneficial. The Society of Biology considers that both are likely, and it is vital that balanced and evidence-based decisions will be possible when the ban is reviewed.

It would be dangerous and mistaken to believe that the neonicotinoid ban alone will 'save the bee'. To protect bees, and other pollinators, we must address the factors contributing to their decline, and for this more research is clearly essential. It would be a serious mistake to believe that no further action is required to address questions of uncertainty about the causes of decline in bee populations.

Background:

Productive agricultural systems currently rely on pesticides to maintain secure food supplies, and the likely impact on EU food production should be considered when changing pesticide regulation. Risks associated with banning a pesticide include reduction in yields, and use of alternative products can have negative environmental impacts.

Neonicotinoids work by disrupting insects' nervous systems and there is evidence from laboratory and small-scale controlled studies that they affect bee behaviour. However, the relevance of these studies to practical impacts in the field is uncertain. Reliable data about the effects of pesticides in the field on species other than the target crop pests is difficult to collect, and to do so requires sustained investment in research over many years and at many different sites.

