Environmental impact of neonicotnoids and other pesticides

Westminster Hall debate briefing

5th March 2024

Background

- On 18th January 2024, the UK government re-authorised the use of Cruiser SB, a neonicotinoid pesticide, for the treatment of sugar beet seed for the coming year, following an application by British Sugar.
- The government's decision came on the same day that the Office for Environmental Protection (OEP) warned that the UK is largely off track to meet their Environmental Improvement Plan targets, including managing exposure to chemicals and pesticides.
- Neonicotinoids are neurotoxic pesticides that can cause paralysis and eventual death in bees and other insects. Professor Dave Goulson has warned that just one teaspoon of the chemical can result in 1.25 billion honeybee deaths.
- The emergency authorisation allows for 'seed-dressing' of sugar beet crops with neonicotinoids, but this method of application means that just 5% of the pesticide reaches the crop. The rest accumulates in soil, which is then absorbed by plant roots or leaches into water sources. This form of poisoning has devastating consequences for nature with harmful neonicotinoids found in more than 10% of English rivers.
- Under the Environment Act 2021, the UK has a legally binding commitment to halt the decline in nature by 2030. Re-authorisation of Cruiser SB flies in the face of this commitment.
- Although the current authorisation is technically temporary and only allows the use of Cruiser SB on sugar beet sown in 2024, the same application for emergency use has been successful for four years in a row. This is despite an industry commitment to end reliance on the banned pesticide in 2023.

What do the experts say?

- The Expert Committee on Pesticides (ECP) and the Health and Safety Executive (HSE) object to the authorisation of Cruiser SB, concluding the potential risk to bees and other pollinators outweighs the benefits of granting the authorisation. The ECP also found high levels of risk to birds who consume the seeds treated by Cruised SB.
- Importantly, Defra's own economic analysis found there was little impact of the beet yellows virus on sugar beet yield in untreated crops.
- Recent evidence suggests we have lost 50% or more of our insects since 1970. This has far-reaching consequences for both wildlife and people. With a third of our food crops pollinated by insects, there is a lot at stake.
- The average annual economic impact of beet yellows virus is estimated at £14.4 million. In comparison, the economic benefit of pollination to crop production in the UK is estimated at £600 million each year and wild bees alone pay out £1,800 per hectare in economic contribution.
- A thriving pollinator population is vital for improving seed setting, which results in higher yields and better-quality products. Honeybees pollinate between 5-15% of the UK's insect

pollinated crops, with wild bees pollinating between 85-95% of the UK's insect pollinated crops.

- Climate change has also impacted crop yields. Pest infestations such as virus yellows are increasing because of wetter, warmer temperatures caused by climate change, which mean fewer aphids die in the cold winter weather.

What about farmers?

- Pesticides help ensure food availability and affordability by enhancing crop productivity, improving the appearance of food and maintaining food safety. However, there is debate over the amount of pesticide use necessary to provide food for a growing population.
- Despite the emergency authorisation being granted in 2022 and 2023, the proportion of farmers who decided against using neonics was 29% and 40% respectively. This shows that an increasing number of growers are trying to farm in a way that does not harm nature or rivers.
- The issue stems from a lack of support from industry and government for these growers. The UK government has instead focused on short term solutions that will undermine the long-term sustainability of the farming sector and disadvantage those growers trying to do the best for nature. Re-authorisation of Cruiser SB does not encourage non-chemical use and slows down crucial research into alternatives to harmful pesticides.

What do voters think?

- A poll published by The Wildlife Trusts in December 2023 shows that nature policies could affect the outcome of a general election. The poll revealed that 62% of their members polled said they would or might switch their vote at the next general election, with 61% saying they will vote based on environmental policy.
- Polling by the National Trust, RSPB and WWF in September 2022 found 81% of UK adults believe nature is under threat and that more must be done urgently to protect and restore it.

Suggested interventions

- How does the government intend to encourage research into sustainable alternatives to harmful pesticides, considering the vital role that bees and other insects have in our food system?
- How does the government intend to support nature-friendly farmers who recognise the damage neonicotinoids have on our ecosystem?
- Does the government recognise the harm Cruiser SB has on the economic value of pollination for crop production, as well as the centrality of our pollinators to UK food security?