

Lecture III: Fiction, Reality and the Way Forward in Pesticide Risk Assessment

Wednesday 23 October 2024 13:00 (15 minutes)

10 min + 5 min discussion

The global decline in biodiversity is due to a variety of anthropogenic stressors. Amongst these, pesticides play a decisive role. In response to this, ever higher targets are being proclaimed in environmental legislation, such as the EU's Green Deal. However, some of these targets are scientifically contradictory. For example, reducing use by 50% and reducing risk by 50% are incompatible, given that toxicants generally exhibit logarithmic effects. In addition, there are a number of fundamental shortcomings in the current regulatory risk assessment process. This includes the inadequate design and evaluation of higher tier tests, the failure of ecotoxicological models to consider relevant factors such as latent effects, culmination and synergistic interactions of stressors. And finally the lack of validation of predictions at the ecosystem level. I suggest a parsimonious and realistic framework for the prospective effect assessment of pesticides.

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