

II. Test and risk assessment (incl. systemic effects, field testing, bee brood)

Risk Assessment of Pesticides and the role of EFSA

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Abstract

The European Food Safety Authority (EFSA) was created by the Regulation EC 178/2002 on 28 January 2002 with the mandate to provide scientific advice and support for the European Community policies in all fields with impact on food and feed safety. The PPR Unit (Plant Protection Products and their Residues Unit, Risk Assessment Directorate) as well as the Pesticides/PRAPeR Unit (Scientific Cooperation and Assistance Directorate) both works on Plant Protection Products in relation to Directive 91/414 EEC. PRAPeR coordinates the Pesticide Risk Assessment Peer Review for the approval of active substances by the European Commission and the Members States, whereas the PPR Panel provides independent scientific opinions and guidance for the Community's legislation in the field of plant protection products.

Actual examples have been presented regarding the role, working procedures and results of the PPR Panel and PRAPeR in relation to the risk assessment of plant protection products to bees (e.g. EFSA-Opinions, EFSA-Conclusions). Information on on-going and scheduled work of the PPR Panel in this area have also been mentioned. In line with EFSA's commitment for transparency, details of the ongoing work are published on www.efsa.europa.eu.

Systemic plant protection substances and products: how to assess the risk for bees? A beekeepers point of view

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Abstract

Background: The current plant protection products (PPPs) assessment is no more suitable when applied to systemic substances since systemic chemicals can contaminate nectar and pollen during a long length of time. Largely focused on the acute toxicity, the current assessment scheme does not take into account several elements i.e. the chronic toxicity, the possible synergies between substances, and between pathogens and PPPs. Possible bee contamination through nectar and pollen leads to a specific exposure, mainly oral, concerning the hive bees, including larvae, drones and queens, as well as potentially delayed through the stored honey and pollen consumption. Moreover, regarding the long-term exposure, sublethal chronic effects should be taken into account.

Results: For such substances we would take both the chronic toxicity and the acute toxicity measurements into consideration. Therefore the TER should be calculated based on the lowest LD₅₀ and in the case of risk, the PEC/PNEC ratio should be measured and calculated for various behaviours. A larvae test should also be performed. Tunnel tests may be helpful but the exposure to the PPP cannot be proven and the bee behaviour observation is currently inaccurate. Further research on the effect of small doses of PPP on the bee immune system seems more than necessary.