

Update on the ECHA guidance for the risk assessment of bees and other arthropod pollinators

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Musca caesar (Linnaeus, 1758; Macquart, 183) Blow fly. source: Christian Kantner

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Background: COM Mandate to ECHA



In Dec 2019 mandate to

- develop a guidance for assessing the risks to arthropod pollinators (including bees), taking into account EFSA's Guidance Document
- to specify the information required to enable a conclusion by the evaluating authority



ECHA expert group

Austria

Switzerland

Germany

Netherlands

Norway

Spain

EU (ECHA, EFSA)



Development process

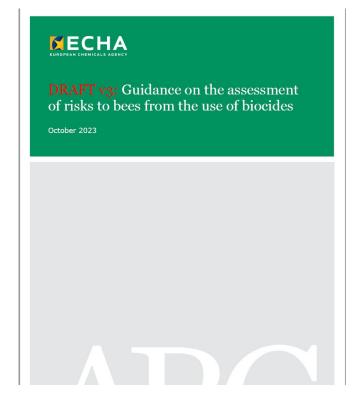


^{*}Preliminary considerations for ECHA's guidance on the "Methodology to assess the risk to bees and other non-target arthropod pollinators from the use of biocides" 7957c0f8-5ded-4a6e-17a7-2a899bbb141a (europa.eu)



ECHA Draft guidance on the risk assessment of bees

- Risk assessment scheme Ch 3
- Problem formulation Ch 4
- Exposure assessment Ch 5
- Effects lower tier Ch 6
- Lower tier RA Ch 7
- Time reinforced toxicity Ch 8 New
- Sublethal effects Ch 9 New
- Higher tier RA Ch 10
- Metabolites Ch 11
- Mixtures Ch 12
- Risk mitigation measures Ch 13
- Recommendations Ch 15





Comparison between ECHA and EFSA Bee guidance

- → Transfer of assessment framework from PPPs to biocides?
 - Specific protection goal for honey bee (10 %)
 - Standard testing methods
 - Exposure calculations with certain adaptations
 - Lower tier risk assessment with some adaptations
 - Higher tier assessment not directly suitable



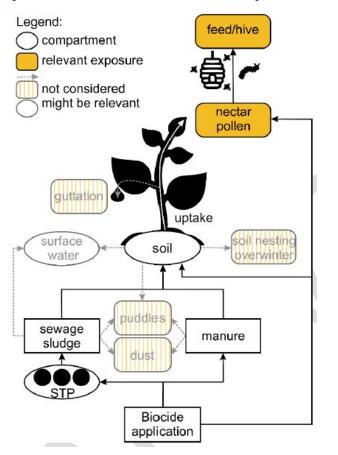
Start Problem formulation Chapter 4 PT 18 active see Chapter 2.1, substance? no RA. an bees be Negligible exposure, exposed? no RA Chapter 4 Exposure assessment Effect assessment Chapter 5 (lower tier) Chapter 6 Define PEQ Select worst-case PEQ, across Define DRCi relevant exposure scenarios Sublethal effect Lower tier risk assessment assessment Chapter 7 Chapter 9 Chapter 8 Compare the overall effect at colony level with the SPG Stop for sublethal effect Chronic RA using Acceptable risk exposure be "lifespan scenarios" at lower tier? refined? applicant intend to perform higher tier applicant intend to perform higher tier Conclude studies? acceptable risk Potential excluded End Consult eCA to Conclude discuss appropriate unacceptable risk study design

Risk assessment scheme for biocides

- A similar scheme as in the revised EFSA guidance is applied
- Biocide specific aspects: problem formulation (+exposure assessment) and higher tier risk assessment



Pathways of biocides exposure to bees

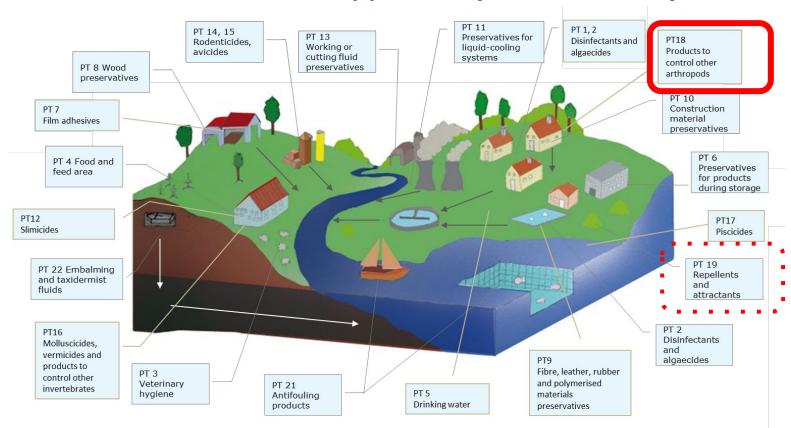


Oral exposure during consumption of contaminated pollen and nectar

Contact exposure via direct contact to biocide or contaminated matrices



Focus on Product Type 18 (insecticides)





Relevant sources of exposure – PT18

- → Application of manure/sludge from animal housing
- → Spraying on walls and foundation of buildings
- → Irrigation of private gardens with treated water
 - → Outdoor large-scale spraying





Publication on non-bee pollinators (ECHA 2022)



European arthropods and their role in pollination: scientific report of their biodiversity, ecology and sensitivity to biocides.

September 2022



Figure 4: Musca caesar (Linnaeus, 1758; Macquart, 183) Blow fly.

Identified key data gaps:

- Lack of standard TGs
- Lack of information on the basic ecology and biology
- Lack of information on the most relevant route of exposure and life stage
- Lack of commercially available test species



Non-bee pollinators (NBP): future development



Vanessa cardui (Linnaeus, 1758) The painted lady. source: Christian Kantner

Due to the identified data gaps, not possible to propose a risk assessment scheme

Intent to cover NBP under non-target terrestrial arthropods assessment – Update required for the existing biocide guidance documents

Outcome and results from relevant scientific projects will be important for the future guidance developments



Summary

- → ECHA Bee guidance developed by taking into account guidance for PPPs with biocide specific adaptations
- → First version of the ECHA Bee guidance planned for publication in Q1/2024
- → Focus is on insecticidal biocides (PT18) and uses with potential significant exposure to bees
- For non-bee pollinators description of current state of knowledge - further research needed to define a method for quantitative risk assessment

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