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Recent Regulatory Developments in Pesticide Risk Assessment process for Bees in Brazil



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Outline



Brief background



Main points of the new rule:
IN (Normative Instruction) nº 02,
from February, 10th, 2017



Next steps: focus on non-*Apis* bees



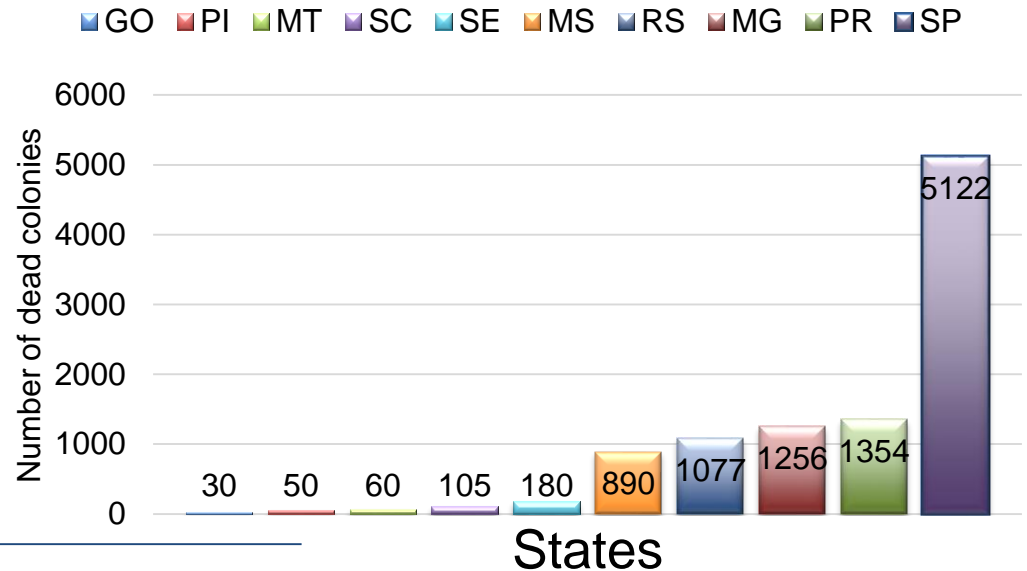
Brief background

- 🐝 Environmental assessment for pesticide registration started to be required in 1989 (before that, registered only by Agriculture Authority)
- 🐝 Classification and labeling based on hazard assessment (no consideration of exposure)
- 🐝 Risk assessment procedures started to be developed in 2010 (so, this is relatively a **new topic** for Brazil)



Brief background

Reported cases of
massive mortality for
managed bees
(2009 – 2017)
(not CCD!)



...at the same time other countries discussing risk of pesticides for bees, a lot of papers relating effects of insecticides to bees...



Brief background

- 🐝 First risk assessments performed by applying the previous EU approach:
 - ☐ For spray applications: Hazard Quotient ($HQ > 50$)
 - ☐ For soil and seed treatments: Exposure Toxicity Ratio ($TER > 10$ using default value of 1 mg/kg in pollen and nectar and consumption rates from Rortais *et al* 2005)
- 🐝 For **neonics** and **fipronil**: all uses and modes of application authorized indicated **risk**



Brief background

Reference Documents:

- 🐝 2011: Setac Pellston Workshop
- 🐝 2012: North America White Paper and EFSA Scientific Opinion
- 🐝 2013: EFSA Guidance published
- 🐝 2014: North America Guidance published
- 🐝 2015: Australia - Road Map published

- 🐝 2017: Brazil - Normative Instruction (IN) nº 02 published



Main points of IN n° 02

Highly based on North America's approach...

- based on *Apis mellifera* data
- use of *Bee-Rex* and *AgDrift* models for screening
- same test requirements for tier 1
- one scheme for foliar applications and other for soil/seed/trunk treatments



Main points of IN nº 02

...with few modifications:

- 4 tiers instead of 3 (last one is field/monitoring)
- use of safety factor of 10 to consider the non-*Apis* bees, based on Arena & Sgolastra (2014)
- residue trials **must** be performed with the intended crop in Brazil
- crop groups for residue tests (tier 2)



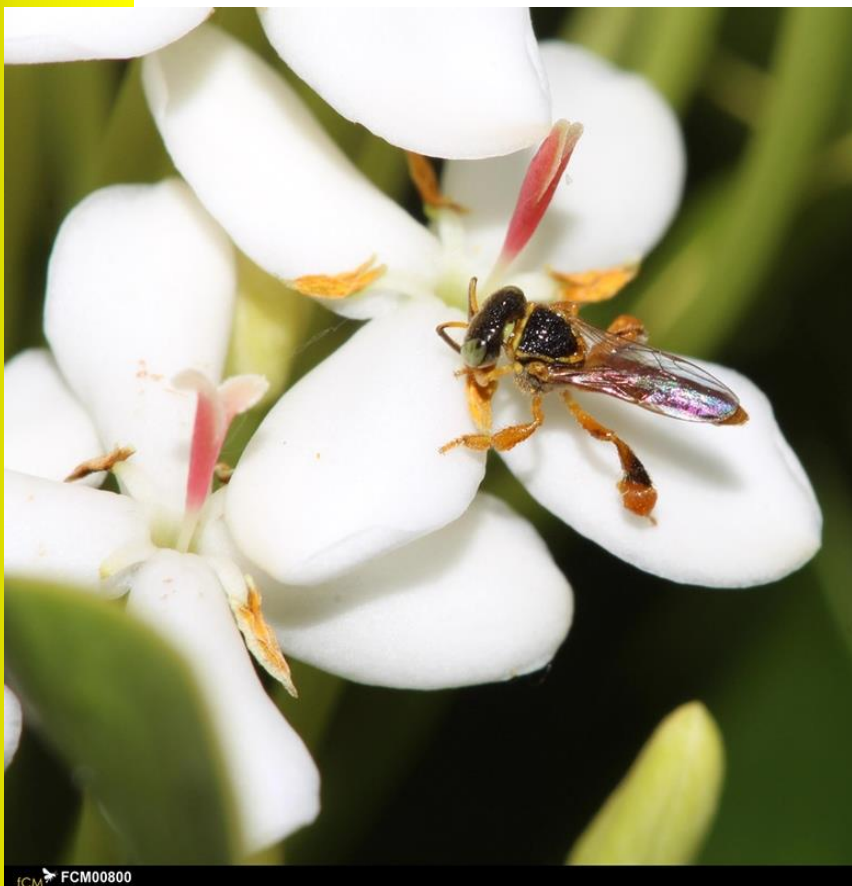
Main points of IN nº 02

- Risk assessment scheme for foliar applications
- Risk assessment scheme for soil/trunk/seed treatment applications

Next steps:

Focus on native non-*Apis* bees:

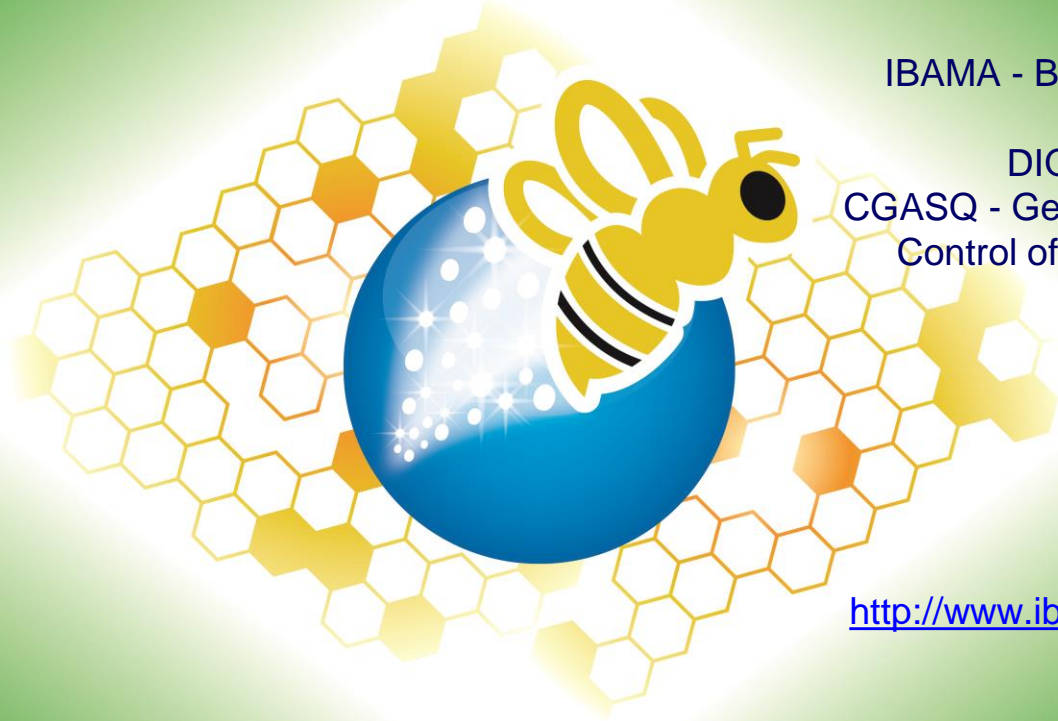
- Matrix of species selection (to be published soon): provided the basis to elect meliponines (stingless bees) as a priority group, and solitary bees as a second step
- call for research in order to fill the gaps and assess the need of inclusion of a native bee in the risk assessment scheme and development/adaptation of protocols and tools



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Thank you very much for your attention!



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