APImondia 41st congress 2009

15-20 SEPTEMBER • MONTPELLIER - FRANCE

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ROUND TABLE 3

Intoxication of bees due to pesticides : results from scientists

THURSDAY 17 SEPTEMBER 2009 MORNING **PASTEUR ROOM** **9:00-13:00**

Chairman : Dr. J-M BONMATIN (Centre National de la Recherche Scientifique (CNRS) Orléans, France)

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Pesticides : Toxicity / bees (DL50 ng/bee)

pesticide	®	utilisation	DL50 ng/ab	Tox/DDT
DDT	Dinocide	insecticide	27 000,0	1
amitraze	Apivar	i/acaricide	12 000,0	2
coumaphos	Perizin	i/acaricide	3 000,0	9
tau-fluvalinate*	Apistan	i/acaricide	2 000,0	13,5
methiocarb	Mesurol	insecticide	230,0	117
carbofuran	Curater	insecticide	160,0	169
λ-cyhalothrine	Karate	insecticide	38,0	711
deltamethrine	Décis	insecticide	10,0	2 700
thiaméthoxam	Cruiser	insecticide	5,0	5 400
fipronil	Regent	insecticide	4,2	6 475
clothianidine	Poncho	insecticide	4,0	6 750
imidaclopride	Gaucho	insecticide	3,7	7 297

Dr. JM Bonmatin (CNRS) France

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Conclusion 1

Systemic insecticides :

- → Very high toxicity for honeybees
- → Acute effects (overdosing, sowing…)

- → Contamination of flowers, nectar and pollen
- → Subletal effects and chronic exposure
- → Risks in fields : PEC/PNEC >> 1

- → Synergies with other pesticides
- → Synergies with other pathogens

→ Major weakening factor of bee colonies

Conclusion 2

Systemic insecticides :

- → Seed dressing : crops treated *a priori*
- → Reduction of quantities (÷ 100) but huge toxicity (× 1000)
- → Induces resistances of target species
- → Multi-pathway exposure (chronic intox) at very low doses
- → Weakening of bees → other pathogens and parasites favoured

In the context of the general bee colony weakening across the world, it is urgent to fight all together against their pathogens and parasites as well as to preserve their environment (biodiversity, climate …).

BUT a major way to really help pollinators is FIRST TO REDUCE SHARPLY the pressure of chemicals products, especially PESTICIDES that we tip out in our environment.