

## **Bee poisoning incidents in the Pomurje region of Eastern Slovenia in 2011**

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### **Abstract**

In spring 2011 a high number of bee poisoning incidents was recorded during the sowing of maize in the Pomurje region of Slovenia. The sowing of maize in Pomurje started two weeks earlier than normal following an extremely dry period. In contrast to other parts of Slovenia, maize sowing in Pomurje coincided with flowering of oilseed rape on adjacent fields. More than 2500 colonies were affected representing nearly 10% of bee keepers in the region. Samples were taken from dead bees, pollen, nectar, honey combs, flowering oilseed rape and maize seeds collected in the field and subsequently analysed for pesticide residues. The active substance clothianidin was most frequently found and was detected in 24 out of 51 samples (47%) of which 12 dead bee samples (86%). Another neonicotoid, thiamethoxam, was found in 4 samples (8%) of which 2 dead bee samples (14%).

The presence of clothianidin in dead bees and pollen in April 2011 is attributed to the sowing of maize treated with the insecticide Poncho Pro. The quality of seed coating for maize seeds treated with the insecticides Poncho or Cruiser collected at different suppliers was tested in a German laboratory. The results showed that abrasion of dust was below the maximum acceptable level of 2 g per 100 kg seeds for 18 out of 19 samples with one sample only slightly exceeding this level. The seed fulfilled the prescribed national quality standards for dust abrasion that were introduced following bee poisoning incidents in 2008. From 29 April 2011 onwards the use of maize seeds and oilseed rape seeds treated with Poncho Pro containing the active substance clothianidin and Cruiser containing the active substance thiamethoxam was prohibited. Further records of bee poisoning in May and subsequent findings of clothianidin and thiamethoxam in dead bees suggest that not all incidents can be attributed to the sowing of maize as route of exposure.

### **Reference**

Porocilo o padcih cebel v Pomurju in ostalih delih Slovenije od 17.04 do 30.05. Javno porocilo. Inspektorat RS za Kmetijstvo, Gozdarstvo in Hrane, Ministrstvo za Kmetijstvo, Gozdarstvo in Hrane. 17.6.2011.