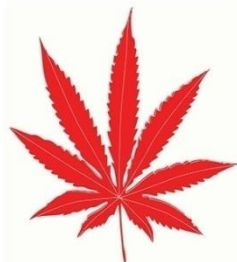




Conference Abstract

3rd The Holy Quran & Science Conference and Exhibition - 2016

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Conference Abstract

PESTICIDE EFFECTS ON HONEYBEE SURVIVAL AND GENE EXPRESSION

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Subtitle:

Speakers Profile

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Abstract

Some widely used pesticides, such as neonicotinoids, are known to be extremely toxic for bees and can, even at sublethal doses, significantly decrease honeybee performance and trigger disorders in colony dynamics and labour partition. The aim of the present work was to assess the effects of agricultural pesticides on honeybee survival and physiological stress. A large number of foragers were tracked during their foraging activity in four different agricultural landscapes. Those landscapes included three agricultural areas that contained large field crops (corn, cotton, soybean, and sorghum) and one control treatment with no agriculture. Marked bees were recovered from their colonies after few weeks and analyzed chemically. Expressions of some detoxification genes were quantified in the recovered bee brains too. Our results show that recovered foragers contained low doses of pesticides except those foraging in non-agricultural area. Genetic expression of the studied genes showed no response to pesticide exposure but rather to the bee ages.

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