

All Databases PubMed Nucleotide Protein Genome Structure OMIM PMC Journals Books
 Search PubMed for [Advanced Search](#)

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

Display [AbstractPlus](#) Show 20 Sort By Send to

1: [Arch Environ Contam Toxicol.](#) 1999 Nov; 37(4): 529-35.



The effect of insecticides on learning in the Africanized honey bee (*Apis mellifera* L.).

[Abramson CI](#), [Aquino IS](#), [Ramalho FS](#), [Price JM](#).

Departments of Psychology and Zoology, Laboratory of Comparative Psychology and Behavioral Biology, Oklahoma State University, 215 North Murray, Stillwater, Oklahoma 74078, USA.

The present study was designed to examine the effects of endosulfan, decis, baytroid, and sevin on the learning ability of Africanized honey bees (*Apis mellifera* L.). Although these insecticides were recommended by the government of Brazil to control the cotton boll weevil, the effects on bees have been unknown. Results of the present research show that: (1) bees readily consume each of the pesticides when placed in a sucrose solution; (2) the odors of the pesticides are not repellent to bees, and such odors can serve as conditioned stimuli; (3) learning occurs to various degrees when the insecticides are combined with the sucrose solution and used as an unconditioned stimulus; and (4) feeding the insecticides to the bees 1 h prior to conditioning leads to differing mortality. Because of the importance of bees for honey production, as well as pollination of cotton and other crops, recommendations are made for the use of decis and other measures for boll weevil control. <http://link.springer-ny.com/link/service/journals/00244/bibs/37n4p529>. ++html</HEA

PMID: 10508901 [PubMed - indexed for MEDLINE]

Related Articles

- Does Cry1Ab protein affect learning performances of the honey bee *Apis mellifera* L. (Hymenoptera: Apidae)? [Entomol Exp Appl. 2008]
- Review* Behavioral studies of learning in the Africanized honey bee (*Apis mellifera* L.). [Brain Behav Evol. 2002]
- Classical conditioning of proboscis extension in harnessed Africanized honey bee queens (*Apis mellifera* L.). [Rep. 2004]
- The effect of essential oils of sweet fennel and pignut on mortality and learning in africanized honeybees (*Apis mellifera* L.) (Hymenoptera: Apidae). [Neotrop Entomol. 2007]
- Review* Climate change: impact on honey bee populations and diseases. [Rev Sci Tech. 2008]

» See Reviews... | » See All...

Recent Activity

- [Turn Off](#) [Clear](#)
- The effect of insecticides on learning in the Africanized honey bee (*Apis mellifera* L.).
 - Behavioral studies of learning in the Africanized honey bee (*Apis mellifera* L.).
 - [Systemic insecticides: new risk for pollinator insects]
 - Learning performances of honeybees (*Apis mellifera* L) are differentially affected by imida...
 - Effects of transgenic corn and Cry1Ab protein on the nematode, *Caenorhabditis elegans*.

Display [AbstractPlus](#) Show 20 Sort By Send to

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)

[Department of Health & Human Services](#)

[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)