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## Antibacterial activity of bee venom collected from Italian bees (*Apis mellifera*)

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**Aim:** The aim of this study was to evaluate the antibacterial activity of collected bee venom from *Apis mellifera* pure Italian race against selected Gram-positive and Gram-negative bacterial strains of medical importance.

**Methods & Materials:** Antibacterial activity of bee venom evaluated against nine pathogenic bacterial strains, including *Staphylococcus aureus*, *Streptococcus mutans*, *Streptococcus pyogenes*, *Lactobacillus casei*, *Klebsiella pneumoniae*, *Enterococcus faecalis*, *Escherichia coli*, *Listeria monocytogene* and *Pseudomonas aeruginosa*.

**Results:** The results revealed that the amount of bee venom collected from the pure Italian race during two sessions was  $478 \pm 10.03$  and  $575 \pm 8.03$  mg/colony of venom. Bee venom of bees exhibited antibacterial activity against all five bacterial strains and differs according to the type. Bee venom exhibited antibacterial activity against all five bacterial strains. The minimum inhibitory concentration of BV was determined. These results indicate that BV inhibits the growth and survival of bacterial strains and that BV may be a useful complementary antimicrobial agent against pathogenic bacteria even if bee venom collected by different methods.

### Biography

El-Feel M A is currently working as Assistant Researcher in Bee-keeping Department, Plant Protection Research Institute (P.P.R.I), Agriculture Research Center, Ministry of Agriculture, Egypt. From 2000 - till now, he was appointed as Qualified Philosophy of Doctorate in Agriculture, Apiculture, Entomology (Plant Protection), Cairo University. He completed his Master of Sciences in Agriculture, Apiculture, Entomology (Plant Protection) from Cairo University, 2008. He has done his higher study Diploma in Agriculture (Apiculture & Silk culture) from El Menofea University in 2001 and Bachelor of Science in Agriculture, General Plant Production from Alexandria University, 1998.

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