

RESEARCH ARTICLE

Evaluation of toxicity of emamectin benzoate 5 wg to honey bees

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SUMMARY

Laboratory studies were carried out to assess the contact toxicity of emamectin benzoate 5 WG to workers of Indian bee, *Apis cerana indica* and Italian bee, *Apis mellifera*. Emamectin benzoate 5 WG to Indian bees showed that there was no mortality in emamectin benzoate 5 WG @ 100 and 125 g/ha, while emamectin benzoate 5 WG @ 150 g/ha caused 10.00 per cent at 6 (Hours after Treatment) HAT, and it increased to 6.67, 16.67 and 23.33 per cent, respectively after 24 HAT. However, standard insecticides lufenuron 5 EC @ 600 ml/ha, chlorantroniliprole 18.5 SC @ 150 ml/ha and spinosad 45 SC @ 125 ml/ha caused increased mortality of 30.00, 50.00 and 70.00 per cent, respectively. The mortality increased as the time of exposure increased from 6 to 24 HAT. Similar trend was also observed in Italian bees. Hence, emamectin benzoate 5 WG considered could be highly safe to both the species of honey bees than standard insecticides.

Key Words : Emamectin benzoate, Honey bees, Safety, Toxicity

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