

RESEARCH ARTICLE

Field efficacy of bio-pesticides alone and in combination with newer insecticides against *Helicoverpa armigera* of pigeonpea

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ABSTRACT

While testing the field efficacy of bio-pesticides and some insecticides alone and in combination against *Helicoverpa armigera* of pigeonpea. Bt @ 1.0 kg/ha was found to be the most effective treatment which gave highest mortality of *H. armigera*, and was found at par with *B. bassiana* @ 2.0 kg/ha. In case of insecticides, rynaxypyr 0.006 per cent proved to be the most effective treatment against *H. armigera* and was found statistically at par with indoxacarb 0.008 per cent. While, in case of combinations of bio-pesticides with insecticides, the treatment combination (b₀i₁) rynaxypyr 0.006 per cent was found to be the most effective. The next best treatment was (b₀i₂) indoxacarb @ 0.008 per cent. However, it was found at par with (b₂i₂) *B. thuringiensis* @ 0.5 kg/ha+ indoxacarb 0.004 per cent and (b₁i₁) *B. thuringiensis* @ 0.5 kg/ha + rynaxypyr 0.003 per cent. While (b₃i₂) *V. lecanii* @ 1.0 kg/ha + indoxacarb @ 0.004 per cent, *B. bassiana* @ 1 kg/ha + rynaxypyr 0.003 per cent were found moderately effective against *H. armigera*. Whereas, the combination of (b₃i₀) *V. lecanii* @ 2.0 kg/ha was found least effective against *H. armigera* as compared to rest of the combination.

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