

Field efficacy of biopesticides against *Helicoverpa armigera* in pearl millet

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ABSTRACT

Investigations on evaluation of different bio pesticides against pearl millet ear head worm, *Helicoverpa armigera* in pearl millet crop were made at Instructional Farm, College of Agriculture, Junagadh Agricultural University, Junagadh during *Kharif* 2015. Insecticides used in experiment were spinosad @ 0.014 per cent, indoxacarb @ 0.0079 per cent, *Beauveria bassiana* @ 2.5 kg/ha, *Lecanicillium lecanii* @ 2.0 kg/ha, *HaNPV* @ 500 LE/ha, azadirachtin @ 0.000375 per cent and *Bacillus thuringiensis* @ 1.5 kg/ha. Among the eight treatments, spinosad @ 0.014 per cent and indoxacarb @ 0.0079 per cent was found to be most effective in reducing the larval population of *H. armigera*. The treatments *HaNPV* @ 500 LE/ha, *B. thuringiensis* @ 1.5 kg/ha and azadirachtin @ 0.000375 per cent found moderately effective for the control of this pest. *L. lecanii* @ 2.0 kg/ha and *B. bassiana* @ 2.5 kg/ha proved to be least effective against pearl millet earhead worm. Spinosad @ 0.014 per cent recorded the highest grain yield of pearl millet (2685 kg/ha) and it was at par with indoxacarb @ 0.0079 per cent (2477 kg/ha). As far as economics of various insecticides are concerned, the treatments of *HaNPV* @ 500 LE/ha or spinosad @ 0.014 per cent or azadirachtin @ 0.000375 per cent were found as effective and economical as recommended synthetic insecticides and are recommended for eco-friendly management of *H. armigera* in pearl millet ecosystem.

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