

Bio-efficacy of Different Insecticides for the Management of Insect Pests of Chilli

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Abstract

A field experiment was conducted during *Kharif* 2018 and 2019 seasons to evaluate the bio-efficacy of different insecticides against the chilli thrips, mite, aphid and fruit borer population. The study revealed that the treatment of Lambda-cyhalothrin and Fenpropathrin 30% EC+ Pyriproxyfen 5% was most effective which caused highest per cent population reduction in chilli thrips and aphid population, respectively. Highest reduction of mean population of yellow mite was noticed in the treatments of Spiromesifen and Propargite treatments. Whereas, Emamectin benzoate was emerged as superior treatment over other insecticides in reduction of larval population of fruit borer. The maximum fruit yield and cost-benefit ratio were observed in crop treated with Emamectin benzoate 5% SG (26.66 qha⁻¹ and 2.12, respectively) and minimum fruit yield (18.38 qha⁻¹) and cost-benefit ratio (1.37) were observed in NSKE (Azadirachtin 0.15% w/w) treatment.

Keywords: Bio-efficacy, chilli, insecticide, management

Conclusion

Bio-efficacy studies on major insect pest's complex indicated that Lambda-cyhalothrin and Fenpropathrin 30% EC+ Pyriproxyfen 5% proved to be best treatments showing maximum reduction of thrips population. Significant reduction of mite population was noticed in the treatments of Spiromesifen and Propargite. The treatments *viz.* Fenpropathrin 30% EC+ Pyriproxyfen 5% and Oxydemeton-methyl proved to be best treatments against aphid population. Whereas, Emamectin benzoate was emerged as significantly superior treatment and showed maximum reduction of larval population of fruit borer. The maximum fruit yield and cost-benefit ratio were observed in crop treated with Emamectin benzoate 5% SG (26.66 qha⁻¹ and 2.12) whereas, minimum fruit yield (18.38 qha⁻¹) and cost-benefit ratio (1.37) were observed in NSKE (Azadirachtin 0.15% w/w) treatment.

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