

Evaluating the efficacy of novel insecticides against Bihar hairy caterpillar, *Spilosoma obliqua* walker (Lepidoptera: Arctiidae) in soybean crop

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ABSTRACT

A field experiment was conducted at JNKVV, DHRTC farm during 2014 and 2015 to evaluate the effectiveness of eleven insecticides including untreated check against Bihar hairy caterpillar, *Spilosoma obliqua* Walker. All the insecticides were capable of keeping the population of larvae at the minimum level and significant differences were noted among the treatments at 1, 2, 3 and 7 days after first and second spray of insecticides compared to untreated check. The treatment T₄ (Flubendiamide 480 SC) exhibited its superiority by registering the lowest larval population of 0.80 and 0.15 per meter row length during first and second spray, respectively. The overall order of effectiveness of these insecticides against *S. obliqua* was found to be Flubendiamide 480 SC > Indoxacarb 14.5 SC > Spinosad 45 SC > Thiodicarb 75 WP > Emamectin benzoate 5 SG > Rynaxypyr 20 SC > Thiomethoxom 25% WG > Fipronil 5% SL > Imidacloprid 17.8 SL > Chloropyrifos 20 EC. The highest seed yield of 16.88 q/ha. was obtained in the plots treated with Flubendiamide 480 SC. The next effective treatments was Indoxacarb 14.5 SC followed by Spinosad 45 SC recorded 14.90 and 14.77 q/ha. The protection efficiency was higher being 88.27 per cent with 11.72 per cent losses in seed yield in Indoxacarb 14.5 SC. Maximum yield loss 43.72 per cent was noticed in untreated crop against 11.72 to 37.79 per cent in different insecticidal treatments.

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