

ECO-FRIENDLY APPROACHES FOR THE MANAGEMENT OF SHOOT AND FRUIT BORER IN OKRA

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Executive Summary

Okra shoots and fruit borer (OSFB) is the serious pest that adversely affects the quality and quantity of okra. Therefore, it is now an urgent need to use safe but effective, biodegradable insecticides with no or less toxic effects on non-target organisms. To overcome the problem, a field experiment was conducted at the farm of Sher-e-Bangla Agricultural University, Dhaka to evaluate the eco-friendly management of shoot and fruit borer in okra by using botanicals and chemicals. The experiment was comprised of seven treatments including untreated control following Randomized Complete Block Design (RCBD) with three replications. The treatment (T₅) gave the best result in reducing the shoot infestation (56.88%), as well as fruit infestation by number and weight (71.86%). The maximum total fruit yield (6544 kg/ha) i.e., 71.30% increased over control of okra was produced in T₅. Among all treatments T₆ (Suntap 50SP) showed best performance against okra shoot and fruit borer and reduced the highest percent of shoot infestation, plant infestation, flower infestation and fruit infestation by number and weight in early, mid and late stages (85.26, 93.58, 100, 100, 100 percent) over control throughout the growing period of okra respectively. Among the different botanical products, Neem oil @ 4 ml/Liter of water mixed with 10 ml of trix liquid sprayed at 7 days interval showed best performance in case of shoot infestation, fruit infestation by number and weight in early, mid and late stages, plant infestation and flower infestation. Also, in case of yield, plots treated with T₃ (neem oil @ 4 ml/Liter of water) gave highest products. On the other hand, Dholkalmi leaf extract @ 200 g/Liter of water at 7 days interval showed the lowest performance in case of shoot infestation, plant infestation and flower infestation. Therefore, these results suggest that application of neem oil is an effective method to reduce the infestation of OSFB under SAU environmental conditions.

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