

Eco-friendly management of spotted bollworm [*Earias vittella* (Fabricius)] by using certain bio-pesticides on okra [*Abelmoschus esculentus* (L.)]

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ABSTRACT : Among the Bio-pesticides and insecticides, Chlorpyrifos 20 EC @ 0.05%, Chlorpyrifos 20 EC + Neem oil (1%) and Chlorpyrifos 20 EC + N.S.K.E. (5%) were found to be most effective, the shoot damage percentage was 8.15, 11.98 and 12.87 respectively. Minimum percent of fruit infestation were observed in Chlorpyrifos 20EC @0.05 with 3.90, which are followed by Chlorpyrifos 20 EC + Neem oil with 6.73, Chlorpyrifos 20 EC + NSKE with 7.22, respectively. Occurrence of fruit and shoot borer on Okra was commenced on 33rd standard week (August third week) with an average population of infestation 2.88% and gradually reached its peak level of infestation 47.15% at 41st standard week (October second week) there after declined trend was observed as temperature decreased. It was found that shoots and fruit borer population increased with increasing maximum temperature and positively correlated with maximum temperature. The highest yield was registered with Chlorpyrifos 20 EC about 89.00 q/ha, which was followed by Chlorpyrifos 20 EC + Neem oil 87.30 and Chlorpyrifos 20 EC + NSKE 84.65, respectively.

Key Words: Eco-friendly, okra, shoot and fruit borer, *Abelmoschus esculentus*, *Earias vittella*, *Beauveria bassiana*, *Bacillus thurengensis*.