

## **Efficacy of botanical pesticides against shoot and fruit borer, *Leucinodes orbonalis* in Brinjal**

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**ABSTRACT :** The experiment was conducted during summer season of 2003-04 at Vegetable Research Farm of College of Agriculture, JNKVV Jabalpur. The experiment was designed in randomized block design with 7 treatments and 4 replications, to evaluate the performance of some botanical products against the pest complex of brinjal. The treatments included Triazophos 40E.C. 0.04%, Neem oil 1%, Achook 5%, NSKE 5%, Karanj oil 1%, Eucalyptus oil 1% and an untreated control. Four spraying of each treatment were conducted starting 30 days after transplanting, at an interval of 15 days. Observations on shoot and fruit damage by *Leucinodes orbonalis* were recorded and the results were revealed that Triazophos 40E.C. 0.04%, was significantly superior over all the botanical treatments did not significantly shoot damage in different treatments and ranged between 3.9 to 10.1%. Highest healthy fruits yield (24.76q/ha) was recorded in the treatment of Triazophos 40E.C. 0.04%, followed by the treatment of neem oil 1% (20.54 q/ha healthy fruits), and both the treatments were statistically at par yields in remaining treatments were at par and ranged between 19.57 and 15.23 q/ha. Lowest yield (10.50 q/ha healthy fruits) was registered in untreated control. Highest cost benefit ratio of 1:6.31 was treatment of Triazophos 40 EC 0.04%. Application of neem oil 1% registered the cost benefit ratio of 1:1.79 and found most economical.

**Key Words:** Bioefficacy, botanical pesticides, shoot-fruit borer, *Leucinodes orbonalis*, Epilachna beetle (*Epilachna vigintioctopunctata*), Aphids (*Aphis gossypi*), stem borer (*Euzophera pericella*), Jassid (*Amrasca biguttula biguttula*), brinjal (*Solanum melongena*).