

# **Monitoring the Population Dynamics of Brinjal Shoot and Fruit Borer (*Leucinodes orbonalis* Guen.) Through Pheromone Traps in Relation to Different Ecological Parameters**

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## **ABSTRACT**

Adult populations of brinjal shoot and fruit borer (BSFB), *Leucinodes orbonalis* Guenee were monitored through pheromone traps for two consecutive winter seasons of 2009-10 and 2010-11 in Keonjhar district of Odisha. It was observed that the pest made its first appearance during 41<sup>st</sup> Standard Week 2<sup>nd</sup> week of October and was active up to 11<sup>th</sup> Standard Week 2<sup>nd</sup> week of March in both the years of study. The first peak population level was noticed during 50<sup>th</sup> Standard Week and 48<sup>th</sup> SW, respectively in 2009-10 and 2010-11. However, the second peak was observed during 7<sup>th</sup> Standard Week in both the years of experiment. The correlation studies on abiotic factors and pheromone trap catch revealed that maximum temperature exhibited a significant positive correlation, whereas, relative humidity (both morning and afternoon) and rainfall were negatively correlated with the adult population level of BSFB. However, the extent of variation in adult trap catch due to the multiple interactions of abiotic factors was estimated to be 48.0 % during 2009-10 and 64.8 % during 2010-11 and among the abiotic factors, temperature and relative humidity played maximum role in adult population fluctuation.

**Key words :** Abiotic factors, Brinjal, *Leucinodes orbonalis*, Pheromone trap.