

SEASONAL INCIDENCE OF BRINJAL FRUIT AND SHOOT BORER, *LEUCINODES ORBONALIS* GUEN. (LEPIDOPTERA: CRAMBIDAE) UNDER AGRO CLIMATIC CONDITIONS OF ALLAHABAD, INDIA

Suryadatt Pandey* and Ashwani Kumar

Department of Entomology, Naini Agriculture Institute,
Sam Higgin bottom University of agriculture technology and sciences
Allahabad -211007, India
Email: suryadattpandey@gmail.com

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Abstract: The seasonal incidence of *Leucinodes orbonalis* Guenee on brinjal was studied at central research farm of the Department of Entomology, SHUATS, Allahabad during Kharif season of 2017. The occurrence of shoot and fruit borer commenced from 39th standard week on shoot with an average 14.94% of damaged shoot. The borer population increased and gradually reached peak level of 44.67% of damaged shoot at 42nd standard week. Infestation on Fruit commenced from 42nd standard week with an average 45.83% of damaged fruit (Number basis) and 43.43% (Weight basis) during the experiment. The borer population increased and gradually reached peak level of 57.50% of damaged fruit (Number basis) and 55.90% of damaged fruit (weight basis) at 44th standard week and thereafter decline in the trend was noticed till 47th standard week. It was found that the pest build up on shoot (Damage % number basis) was positively correlated with maximum temperature ($r = 0.703$) and sun shine hours ($r = 0.589$). However it was negatively correlated with morning relative humidity ($r = -0.730$). Whereas percent fruit infestation had positive correlation with maximum temperature ($r = 0.604$, on number basis and $r = 0.597$, on weight basis) and sun shine hours ($r = 0.586$, on number basis and $r = 0.595$, on weight basis); whereas it had negative correlation with evening relative humidity ($r = -0.551$, on number basis and $r = 0.559$, on weight basis). The statistically significant values indicated that occurrence of brinjal shoot and fruit borer was influenced by the prevailing ecological conditions specially Temperature, Relative Humidity and sun shine hours Hence the management of brinjal pest should therefore be promoted from September onwards using an integrated approach.

Keywords: Brinjal, Climatic condition, *Leucinodes orbonalis*, Seasonal incidence

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*Corresponding Author

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