

Seasonal incidence and effect of abiotic factors on population dynamics of major insect pests on brinjal crop

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ABSTRACT

Effect of abiotic factors on the seasonal incidence of major insect pests was observed on brinjal crop during *Rabi* 2009. The incidence of leaf hopper (*Amrasca biguttula biguttula*) was maximum during December, 52nd Standard Week (SW) and minimum during March (12th SW). The incidence of white fly (*Bemisia tabaci*) was maximum during January (2nd SW) and lowest in March (12th SW). Both these insects showed significant negative correlation with both maximum and minimum temperature and wind speed while a positive correlation was revealed with mean relative humidity and total rainfall. The incidence of shoot and fruit borer, *Leucinodes orbonalis* Guenee was observed during Nov. – Dec. with peak infestation during Feb. (6th and 7th SW). The per cent shoot damage was positively correlated with both maximum and minimum temperature, rainfall and wind speed while negatively correlated with mean relative humidity. While per cent fruit infestation revealed a non significant positive correlation with maximum and minimum temperature, rainfall and wind speed exhibited negative correlation with mean relative humidity. The statistically significant values indicated that occurrence of insect pests population was due to the prevailing ecological conditions. Thus the management of brinjal pest complex during *Rabi* sown brinjal should therefore be promoted and tailored from November onwards using an integrated approach.

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