*Research Paper :*

# Population dynamics of white flies, *Bemicia tabaci* Genn. on brinjal

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## SUMMARY

**Field experiment was conducted during *Kharif* season of 1996 to study the population dynamics of white flies, (*Bemicia tabaci* Genn.) on brinjal. With increase in temperature and humidity, there was increase in the population of white flies and *vice-versa*. Number of rainy days exhibited highest positive direct effect and evening relative humidity showed highest negative direct effect on the population of white flies.**

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A general view of the pest problem of brinjal in India reveals that, this crop is attacked by number of pests, *viz*., shoot and fruit borer (*Leucinodes orbonalis* Guen.), epilachna beetle (*Epliachna vigintioctopunctata* Fab.), jassid (*Amrasca biguttula biguttula* Ishida), aphid (*Myzus persicae* Saunder), thrips (*Thrips tabaci* Lindemann) and white flies (*Bemicia tabaci* Gennadius). *Bemicia tabaci* is one of the sucking pests of brinjal. Ohnesorge *et al.* (1980) studied the spatial distribution of *Bemicia tabaci* on eggplant and reported that the final instar larvae occurring only on the oldest leaves. Population dynamics of *Bemicia tabaci* on tomato and egg plant were also studied by Ohnesorge (1981). Sharma and Batra (1955) observed that the population of white fly was in its peak in the month of October on brinjal and cotton. Similarly they also quoted the causes of outbreak *viz*., prolonged rainy period and the injudicious spraying of insecticides. Present investigations have been undertaken to study the population dynamics of *Bemicia tabaci* on brinjal in different meteorological weeks.

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## MATERIALS AND METHODS

The experiment was laid out in unprotected plot with net plot size 5m x 5m in *Kharif* season of 1996-97, at the Horticultural Research Scheme, Department of Horticulture, College of Agriculture, Marathwada Agricultural University, Parbhani. Recommended agronomic practices were followed. The seedlings grown on raised beds were transplanted in the main field after one month. Transplanting was done on the flat beds with 60 x 60 cm spacing. Healthy and vigorous seedlings were preferred for transplanting. Protective irrigation was given immediately after transplanting and thereafter irrigations were given at an interval of 15 days.

Population of white flies was recorded at weekly interval since transplanting from six leaves *i.e.* (two each from top, middle and bottom canopy). Observations on population of white flies were subjected to $\sqrt{x} + 0.5$ transformation.

## RESULTS AND DISCUSSION

Data on population of white flies is presented in Table 1. It is revealed from the data that the incidence of white fly was firstly noticed when the temperature was $25.5^0$c and