

Research Paper :

Biology of leafhopper, *Amrasca biguttula biguttula* on sunflower



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SUMMARY

Biological studies conducted on predominant species of sunflower leaf hopper, *Amrasca biguttula biguttula* (Ishida) at RARS, Raichur, Karnataka. The results revealed that, the leaf hopper laid about 16-22 egg and laid five nymphal instars in the development. The adult longevity of male was 22.80 days and female was 26.00 days.

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*Amrasca
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Biology, Instars,
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Sunflower (*Helianthus annus* L.) is an important oilseed crop of Karnataka, Andhra Pradesh, Maharashtra and Tamil Nadu. It is bestowed with green canopy of leaves up to the maturity stage, thus becomes a reservoir of a number of insect pests of these, sucking pests, like leafhopper, whitefly and thrips cause serious problems resulting reduction in seed yield. Among these sucking pests leafhopper, *Amrasca biguttula biguttula* (Ishida) appears in serious farm causing crop loss up to 46 per cent (Anonymous, 1997). The pest is of economic importance in Karnataka. The incidence would start from seedling stage and prevails throughout crop period. Stunted growth of plant, cupped and crinkling leaves, burnt appearance of leaf margin are the symptoms of damage (Anonymous, 2000). Taking these points into consideration the detailed biology of the leafhopper, *A. biguttula biguttula* on sunflower was undertaken.

MATERIALS AND METHODS

Studies on the different parameters of the biology of leafhopper on sunflower hybrid (KBSH-1) were carried out from July to

September 2003, at Regional Agricultural Research Station, Raichur with the following methods.

Maintenance of pure culture:

Population of leafhopper was maintained on okra and sunflower plants grown in the pots under rearing cage measuring one cubic meter size. The pots were filled with soil properly mixed with FYM. The overnight soaked seeds were sown in such pots. The pots were watered daily and urea was added to these pots every month to ensure green succulent plants.

The final instar nymphs of leafhopper were collected from sunflower and okra fields at research farm with help of aspirator and released to 25 days old plants under rearing cage. The population was maintained on these okra plants. Like this, culture of leafhopper was maintained throughout the investigation period.

Pre-ovipositional period:

For pre-ovipositional studies (including pre-mating and mating periods), a pair of freshly emerged adult leafhoppers of both sexes from

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