



Research Article

Evaluation of newer molecules against sucking pests of cucumber

■ S.K. VINOD^{1*}, SANGAMESHA HAKKALAPPANAVAR², C.S. DANARADDI³, SHILPA B. BIRADAR⁴ AND MANJUNATH TATTIMANI⁵

¹Department of Agricultural Engomology, University of Agricultural Sciences, RAICHUR (KARNATAKA) INDIA

²Department of Agricultural Entomology, College of Agriculture, Navile, SHIMOGA (KARNATAKA) INDIA

³Department of Agricultural Entomology, University of Agricultural Sciences, DHARWAD (KARNATAKA) INDIA

⁴Department of English, Kuvempu University, SHIMOGA (KARNATAKA) INDIA

⁵Department of Agronomy, C.C.S. Haryana Agricultural University, HISAR (HARYANA) INDIA

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*Corresponding author:

ABSTRACT

A field experiment was carried out during post rainy season, 2009-10, at MARS, Agriculture College, Raichur, to evaluate the efficacy of some new insecticides against sucking pests of cucumber. The results revealed that acephate 75 SP exerted the superior control of aphids and whiteflies followed by clothianidin 50 WDG as foliar spray and imidacloprid 600 FS @ 4.66 ml/kg seeds with good control upto 30 DAS as seed dressing chemical compared to check.

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INTRODUCTION

Cucumber (*Cucumis sativus*), is an important vegetable crop, which is used for culinary as well as salad purpose. Production of cucumber is severely affected by the aphids, *Aphis gossypii* Glover, whiteflies, *Bemisia tabaci* Gennadius, and thrips *Frankliniella schultzei* Tryborn. Among the sucking pests, aphids are known to cause severe damage to cucumbers.

Thrips, aphids and whiteflies damage at feeding sites include initial penetration, destruction of cells around the penetration site, and sometimes wrinkling of the leaves occur, whereas, feeding by thrips on young fruits results in curving of fruits. Cucumber being a vegetable crop is to be harvested at regular intervals and hence there is a need for identifying the effective and safer pesticides. Hence, the present investigation was carried out to elucidate the most effective insecticides against sucking pests of cucumber.

MATERIALS AND METHODS

The experiment was conducted on popular variety of cucumber viz., Dharwad green by adopting randomised block design with eight treatments including control replicated thrice at MARS, Agricultural College, Raichur during post rainy

season of 2009-10. The crop was planted with a spacing of 1.8 m between the rows and 0.9 m between the plants. Out of eight treatments, three treatments were foliar spray and other was seed dressing including control. Insecticides were sprayed with a Knapsack sprayer at 10 days interval. The population count was made on five randomly selected plants in each plot before spraying, three and seven days after spraying and plants were tagged for observation. In treatments having seed dressing, observations were made at 29, 33, 37, 43, 47, 53 and 57 days after sowing. The freshly harvested fruits were weighed, separated damaged fruits and data were recorded and subjected to statistical analysis to determine the least significant difference between treatments.

RESULTS AND DISCUSSION

The results obtained from the present investigation have been discussed in the following sub heads :

Aphids:

The data obtained (Table 1) reveal that aphids at 33 DAS showed that acephate 75 SP @ 1g/l was the most effective treatment in reducing aphid population which recorded 15.17 aphids/cm² over untreated control and the next best treatment