

RESEARCH ARTICLE

Efficacy of various insecticidal modules against hoppers in mango

■ D. ANITHA KUMARI*, V. ANITHA, A. GIRWANI AND C. NARENDRA REDDY

Grape Research Station, Dr. Y.S.R. Horticultural University, Rajendranagar, HYDERABAD (A.P.) INDIA

ARTICLE INFO

Received : 07.10.2013

Revised : 18.02.2014

Accepted : 04.03.2014

Key Words :

Mango, Hoppers, *Ideoscopus*,
Integrated pest management

ABSTRACT

Mango hoppers, *Ideoscopus clypealis* (Leth.) and *Ideoscopus niveosparus* (*nititulus*) (Leth.) are serious pests on mango in the flowering and fruiting season. The efficacy of different spray modules were tested against mango hopper on mango cv. Banganpalli under field conditions during 2010-2012 at Fruit Research Station, Sangareddy Andhra Pradesh, India. The treatments consisted of Module I : First spray of *Beauveria bassiana* @ 1×10^7 spores/ml) at panicle emergence stage followed by second spray (after 15 days of first spray) of *Verticillium lecanii* (@ 1×10^7 spores/ml). Third need based spray of Neem Azal (10000 ppm @ 8 ml/lit. of water). Module II : First spray of Neem Azal (10000 ppm @ 3 ml/lit. of water) at panicle emergence stage followed by second spray (after 15 days of first spray) with Nimbecidene (1500 ppm @ 3ml /l of water) Third spray of Neem Azal (10000 ppm @ 3 ml/lit. of water after 15 days of second spray) and fourth need based spray with Nimbecidene (1500 ppm @ 3ml/l of water). Module III : First spray of Thiamethoxam (0.008 %) at panicle emergence stage followed by second spray (21 days after first spray) of profenophos (0.05%) and third need based spray of Carbaryl (0.15%) Module IV : First spray of Spinosad (0.004%) at panicle emergence stage followed by second spray (21 days after first spray) with Thiamethoxam (0.008%) and third need based spray of Neem Azal (10000 ppm @ 3 ml /l of water. Module V: First spray of Acephate (0.04%) at panicle emergence stage followed by second spray (21 days after first spray) with Spinosad (0.004%) and third need based spray of Carbaryl (0.15%) and control with five replications in a completely randomized block design. The main objective of the study was to change the treatment regime from calendar sprays to need based spray so as to minimize the production cost and pesticide residues. Peak incidence of hoppers were noticed in Jan-Feb coinciding with blossoming and declined thereafter through to April first week. Pre and post spray counts were recorded in all the treatments and analysis of data revealed that Module III was found to be superior in controlling the hoppers followed by module V and Module IV. The hopper population recorded during 2010-11(18.3 hoppers per panicle) compared to the hopper population in 2011-12 (15.7 hoppers per panicle). The yield data of fruit for individual years along with mean value of two years showed that the fruit yields was significantly higher in Module III (125.36 kg/tree) compared to untreated trees.

How to view point the article : Kumari, D. Anitha, Anitha, V., Girwani, A. and Reddy, C. Narendra (2014). Efficacy of various insecticidal modules against hoppers in mango. *Internat. J. Plant Protec.*, 7(1) : 99-103.

*Corresponding author:

Email: anithavenkat@yahoo.com