

Research Paper :

Efficacy of indigenous materials and new insecticide molecules against *Maruca testulalis* (Hubner) on blackgram



C. SHIVARAJU, C.T. ASHOK KUMAR, S. SUDHIRKUMAR AND M. THIPPAIAH

International Journal of Plant Protection, Vol. 4 No. 1 (April, 2011) : 214-216

See end of the article for authors' affiliations

Correspondence to :

C. SHIVARAJU

Department of
Agricultural
Entomology, College of
Agriculture, University
of Agricultural
Sciences, G.K.V.K.,
BENGALURU
(KARNATAKA)
INDIA
Email : shiva.338@
gmail.com

SUMMARY

Effect of indigenous materials and new insecticide molecules against *Maruca testulalis* on blackgram revealed that among indigenous materials NSKE recorded comparatively high larval reduction (36.26%) followed by GCK (21.43 %) and Panchagavya (18.35%) whereas GE (11.50%) was recorded lowest larval reduction in first spray. Similarly, NSKE (55.34 %) and Panchagavya (55.34%) recorded comparatively high larval reduction followed by GCK (54.08%), whereas GE (49.13%) was recorded lowest larval reduction in second spray. Among new insecticide molecules flubendiamide 24% + thiacloprid 24-48% SC recorded comparatively high larval reduction (76.56 and 84.45%) followed by emamectin benzoate (66.50 and 80.88%) and indoxacarb (61.55 and 77.94%) lowest larval reduction in I and II spray, respectively.

Shivaraju, C., Ashok Kumar C.T., Sudhirkumar, S. and Thippaiah, M. (2011). Efficacy of indigenous materials and new insecticide molecules against *Maruca testulalis* (Hubner) on blackgram. *Internat. J. Pl. Protec.*, 4(1): 214-216.

Key words :

Blackgram,
Maruca testulalis, NSKE,
GCK,
Panchagavya,
Flubendiamide,
Thiacloprid,
Emamectin
benzoate,
Indoxacarb

Received :
January, 2011

Accepted :
March, 2011

Pulses constitute an integral part of Indian Agriculture because of major source of dietary protein of the large section of vegetarian population of the world. Besides their high nutritional value, pulse crops have a unique characteristic of maintaining and restoring soil fertility through biological nitrogen fixation and thus play a vital role in sustainable agriculture (Asthana, 1998). India is the largest producer and consumer of pulses in the world accounting for 33 per cent of world area and 24 per cent of world production. In India, the total area under pulses is 23.86 million hectares with a total production of 15.12 million tonnes and the average productivity is 638 kg per hectare (Anonymous, 2008). The important grain legumes grown in India are Bengalgram, redgram, greengram, blackgram, cowpea, lentil and pea. Among them, blackgram (*Vigna mungo*) is the ancient and well known leguminous crop of Asia. The origin of cultivated blackgram is India and Central Asia.

It is a popular pulse crop because of its superior nutritional quality, both in terms of high protein content (around 24%) and easy digestibility. The low yield of blackgram may be attributed for many reasons, among which damage by insect pests is of paramount importance. The pod borer complex includes *Helicoverpa armigera* (Hubner), *Maruca testulalis* (Geyer), *Lampides boeticus* (Lin.), *Euchrysops cnezeus* F. *Etiella zinckenella* Treit and *Apion ampulum* F. which are of regular in occurrence. *Maruca testulalis* is one of the major pest and play an important role in decreasing the crop yield. The literature is scanty on efficiency of insecticides and newer molecules. Hence, the present investigations were undertaken.

MATERIALS AND METHODS

A field experiment was conducted during Kharif 2008 to evaluate the efficacy of indigenous materials and new insecticide molecules against pod borer at Agricultural