

Research Paper :

Pests and predators activity on new variety of dolichos bean [*Lablab purpureus* (L.) Sweet]



B.S. RAJENDRA PRASAD, M. BYRE GOWDA , C.S. JAGADEESH BABU, G. N. VEERA KUMAR
AND C.K. PRAMILA

International Journal of Plant Protection, Vol. 4 No. 2 (October, 2011) : 385-389

See end of the article for
authors' affiliations

Correspondence to :

**B.S. RAJENDRA
PRASAD**
AICRP (Pigeonpea)
University of
Agricultural Sciences,
G.K.V.K.,
BENGALURU
(KARNATAKA)
INDIA
Email : rajendrayadav
007@gmail.com

SUMMARY

A study was carried out to investigate the incidence of different insect pests and predators on new variety, HA -4 of dolichos bean. The results of the field study revealed that 15 insect pests belonging to nine different families of five orders and five species of predators belonging to five different families coming under four orders. The sucking pest population was found throughout the year. The peak population of aphids (49.00/3 leaves), pentatomid (5.20/5 plants) and coreid bugs (11.20/5 plants) were observed on 60 days after sowing (DAS). Whereas, eurybrachid bugs (5.20/5 plants) recorded at 50 DAS. Among the pod borer complex, higher pod damage due to *Helicoverpa armigera*, *Maruca vitrata* and *Lampides boeticus* was 20.43, 16.66 and 10.20 per cent pod damage, respectively on 80 DAS, whereas, *Callosobruchus theobromae* (12.55 %) was observed on 90 DAS. The important predator's viz., robber fly, coccinellids, syrphids, green lacewing and dragonfly were prominent ones. The activity of predators was high between 40 and 60 DAS and population decline was observed thereafter.

Prasad, B.S. Rajendra, Gowda, M. Byre, Babu, C.S. Jagadeesh, Kumar G.N. Veera, Pramila, C.K. (2011). Pests and predators activity on new variety of dolichos bean [*Lablab purpureus* (L.) Sweet]. *Internat. J. Plant Protec.*, 4(2): 385-389.

Key words :

Dolichos, Pod
borers, Sucking
insects, Predators

Dolichos bean/field bean [*Lablab purpureas* (L.) Sweet] is an important pulse crop in India and Africa mainly grown for its fresh pods and dry seeds which have a very important place in dietary schedule of people of developing countries. It is being used as a vegetable by humans and as fodder for livestock. Green pods of field bean have high nutritive value because it has small amount of vitamin A, vitamin C, proteins, iron and calcium in raw state. The ripe seeds contain 20 to 28 per cent of protein. Karnataka state contributes a major share by producing about 18000 tonnes from an area of 85000 hectares accounting for nearly 90 per cent in terms of both area and production of this crop in the country (Anonymous, 2010). Although it is largely grown as a mixed crop with finger millet, maize, sorghum, castor and groundnut, it is also grown as pure crop both under rainfed and irrigated conditions. In spite of increased area in the state, its productivity is considerably low. Devastation by insect pests is considered as

one of the main impediments in stepping up the production of this crop. A number of pests severely ravage the buds, flowers and developing seeds of field bean crop. Govindan (1974) has recorded as many as 55 species of insects and one species of mite feeding from seedling stage to the harvest of this crop.

The sucking pests, lablab bug, *Coptosoma cribraria* (Fabricius.) and *Riptortus pedestris* (Fabricius) occur commonly and found in large numbers throughout the cropping period. The bugs were found in congregation on tender vines and sucked sap resulting in fading vines and shoots (Ayyar, 1963). Whereas, the aphid, *Aphis craccivora* Koch., a serious pest of this crop by sucking sap from tender shoots, inflorescence and pods resulting in drying up of tender shoot and premature fall of flower buds, flowers and tender pods. Among the pod borer complex, *Helicoverpa armigera* (Hubner), *Adisura atkinsoni* (Moore), *Maruca vitrata* (Geyer), *Callosobruchus theobromae* (Linnaeus), *Etiella zinckenella*

Received :

July, 2011

Revised :

August, 2011

Accepted :

September, 2011