



Research Article

Seasonal incidence of chiku moth (*Nephoteryx eugraphella* R.) in relation to weather parameters

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ARTICLE INFO

Article Chronicle :

Received : 25.05.2011

Revised : 18.12.2011

Accepted : 16.02.2012

Key words :

Biology,

Nephoteryx eugraphella R

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ABSTRACT

The field studies on seasonal incidence of chiku moth (*Nephoteryx eugraphella* R.) in relation to weather parameters under north Gujarat condition showed that infestation of chiku moth (*N. eugraphella* R.) was appeared more or less throughout the year. The larval population was minimum in first and in second week of May, it increased gradually and reached maximum in the second week of September and then dropped down gradually. Larval population had significantly negative correlation with maximum temperature, while morning relative humidity, evening relative humidity and rainfall were found favourable for pest population in the field.

How to view point the article : Hajare, A.R., Patel, J.I. and Shitole, T.D. (2012). Seasonal incidence of chiku moth (*Nephoteryx eugraphella* R.) in relation to weather parameters. *Internat. J. Plant Protec.*, 5(1) : 89-92.

INTRODUCTION

In India the cultivation of chiku is mostly confined to the Gujarat and Maharashtra state. In Gujarat state, the area under sapota increases year after year. It was only 1500 hectares in 1974-1975 and occupied 24586 hectares with production of 245295 metric tones in 2004-2005. In North Gujarat about 4676 hectares area with an annual production of 467.25 metric tones was recorded in 2004-2005 (Anonymous, 2005). Like any other crop chiku tree are also attacked by number of insect pests. Among them *Nephoteryx eugraphella* R., a chiku moth is the most destructive pest of chiku. It was first reported by Hampson (1896). The caterpillar feeds on leaves, often on buds and flowers; sometimes on tender fruits also. The pest is active throughout the year. However, considering the importance of *Nephoteryx eugraphella* R., to provide a sound base for pest management quantitative aspects of seasonal population build up and incidence of chiku moth (*N. eugraphella* R.) on sapota was carried out under prevailing agro-climatic conditions. The present investigation has been undertaken in north Gujarat condition.

MATERIALS AND METHODS

With a view to studying the seasonal incidence of chiku

moth (*Nephoteryx eugraphella* R.) in relation to weather parameters under north Gujarat condition on sapota. In orchard randomly 10 trees were selected and tagged. The number of larvae of chiku moth (*N. eugraphella* R.) and other observations were recorded at weekly interval on 20 twigs on one tree. The total number of larvae / twigs and per cent twig damaged were recorded. from the Horticultural Instructional Farm of C.P. College of Agriculture, S.D. Agricultural University, Sardarkrushinagar.

For correlation study, the data on different weather parameters *i.e.* temperature (maximum, minimum), relative humidity (morning, evening), rainfall and sunshine hours as recorded by the meteorological observation of Chimanbhai Patel College of Agriculture, S.D.A.U., Sardarkrushinagar for different standard meteorological weeks of 2005-06 were obtained and they were correlated with the larval population to study their specific impact on the pest population.

RESULTS AND DISCUSSION

The findings of the present study have been presented in the following sub heads :

Seasonal incidence :

So far infestation of *N. eugraphella* R. on sapota leaves