

Life History:

Egg and nymphal period last for 7 and 26 days, respectively. Nymphs moult 6 times before reaching adult stage. Development is completed in 40-50 days. It appears late in the season of the cotton crop.

Seasonal Dynamics of Stainers:

Red cotton bug appearance on cotton is after the commencement of the first open boll in the cotton fields. Dusky cotton bugs appear on cotton is when majority of bolls on the crop are open. As they occur at the end of crop season and the loss caused have been minimal, not much attention has been given to the counting their numbers than describing their status as low, medium and high. Usually the insecticides that were applied during the mid to late seasons against bollworms suppressed their population effectively. However, with the reduced insecticide use against bollworms in the 21st century and the large-scale commercial cultivation of Bt transgenic cotton hybrids has led to the increase in population of these red cotton bugs. No estimates are available as on date to specify the degree of lint quality loss caused by these red cotton bugs but might deserve attention if their severity rises in future.

Pest Management Options:

The initial population of red cotton bugs has been found to be susceptible to all the insecticides used for pink bollworm control. Since they appear very late in the crop season their management is not attended to. However with the changing pest scenario on cotton and with the severity of stainers on the increasing trend, it is necessary to take proper care with the onset of population. Dislodging the gregarious population of the stainers on the bolls in to a vessel containing water with a thin film of kerosene is recommended as the late season insecticidal applications leave residues in the harvested produce besides being uneconomical.

Authors

Dr. S. Vennila

Dr. V. K. Biradar

Division of Crop Protection
Central Institute for Cotton Research
Nagpur

Mr. M. Sabesh

Central Institute for Cotton Research (R. S.)
Coimbatore
&

Dr. O. M. Bambawale

National Centre for Integrated Pest Management
New Delhi

Published by

Dr. B. M. Khadi

Director

Central Institute for Cotton Research
Post Bag No. 2, Shankar Nagar P. O.
Nagpur 440 010
Maharashtra

Acknowledgement

Mrs. M. Chakrabarty

Scientist I/c, TMC-MM I Cell
Central Institute for Cotton Research
Nagpur

Printing

Mudrashilpa Offset Printers

Nagpur. Ph. 2231716

March 2007



Know Your Cotton Insects STAINERS (RED AND DUSKY COTTON BUGS)



Produced under
Technology Mission on Cotton
Mini Mission I (3.1)

Project on
“IPM Implementation at Village Level for
Production of Good Quality Cotton”

Funded by
Ministry of Agriculture
Government of India

Common Name : Red cotton bug
Local Name : Tambde dhekun
Scientific Name : *Dysdercus cingulatus* Fab.
Family : Pyrrhocoridae
Order : Hemiptera
Pest Category : Lint Stainers

Description of Insect Stages:

Egg: Eggs are laid in moist soil or in crevices in the ground. They are spherical and bright yellow in colour.

Nymph: Nymphs are red coloured with black median dorsal spots on the inter-tergal membrane of 3/4, 4/5 and 5/6 abdominal segments. There is a pair of white dorsal spot on each of the third, fourth and fifth tergal plates on the abdomen.

Adult: Adults are 12-13 mm in length and have deep red legs and antennae. The membranous portion of the

forewings and the eyes are black in colour. There is also a black spot in each forewing. The transverse bands along the posterior margins of each thoracic and abdominal

sterna, the collar behind the head and the spots at the base of the head are white in colour.

Nature of Damage:

Adults and nymphs suck the sap from leaves, green bolls and seeds of partially opened bolls. Vitality of the plant is lowered, in general. Affected bolls open badly with their lint stained with the excreta or body juices. Quality of the lint is affected and the attacked seeds become unfit for either sowing or oil extraction. Boll rot is caused by the secondary infection due to bacteria wherein rotting of the entire contents of the boll occur



Adults of red cotton bug

following the initial discolouration of the lint to yellow or brown.

Symptoms:

Stained or discoloured lint turns to typical yellow colour. Reddish nymphs are seen in aggregation around developing and open bolls. Adult movement on the soil and over the plants is common sight once they occur in the cotton fields.

Life History:

The eggs are laid under the soil in cracks and are covered with loose earth or with small dry leaves.

Eggs are round and light yellowish. Each female is capable of laying between 100-130 eggs. Egg period lasts 7-8 days. Nymphs after hatching are wingless with their abdomen red with central row of black spots and row of white spots on either side. Nymphal period lasts for 5-7 days. Nymphs pass through five moults with wings developing from the third instar and attaining full form after the fifth. The development is completed in 50-90 days. Males are smaller than the females and the swollen abdomen can differentiate females from males.



Gregarious feeding by nymphs on green boll



Gregarious feeding by nymphs on opening boll



Gregarious feeding by nymphs on open boll

Common Name : Dusky cotton bug
Local Name : Bhurke dhekun
Scientific Name : *Oxycarenus hyalipennis* Costa.
Family : Lygaeidae
Order : Hemiptera
Pest Category : Lint Stainers

Description of Insect Stages:

Egg: Eggs are cigar shaped and whitish immediate to oviposition. They turn pale then to pink before hatching.

Nymph: Early instar nymph is about 2.5 mm long with its rostrum extending the abdomen. They are orange in colour when about to moult. After the first moult the nymphs become reddish brown then become darker after each moult.

Adult: Adults are 4-5 mm elongated with pointed heads, dusky brown with dirty white transparent wings and black spots on fore wings and having deep red legs.

Nature of Damage:

Nymphs and adults suck the sap gregariously from immature seeds which do not ripe, remain light weight. Adults found in the lint get crushed during ginning emitting bad odour and stain the lint.

Symptoms:

Being associated with the open bolls, they cause nuisance to workers during cotton picking. Discoloration of the lint with large number of brown to black colour are common.



Dusky cotton bug



Gregarious feeding on open boll