

# SUGARCANE PESTS

Sugarcane is one of the most important cash crop in some region of India particularly in Bihar. This crop is ~~beneficial~~ attacked by a number of insect pests which cause great damage to it.

Following are common pests of sugarcane.

- 1) *Pyrilla perpusilla* (Sugarcane leafhopper)  
Order: Hemiptera ; Family: Fulgoridae
- 2) *Emmalocera depressella* (Sugarcane root borer):-  
Order: Lepidoptera ; Family: Pyralidae.
- 3) *Chilo infuscatellus* (Sugarcane shoot borer):-  
Order: Lepidoptera ; Family - Crambidae.
- 4) *Typonyza nivella* (Sugarcane top borer)  
Order: Lepidoptera ; Family: Pyralidae
- 5) *Aleurolobus barodensis* (Sugarcane whitefly)  
Order: Hemiptera ; Family: Aleyrodidae.
- 6) *Bissetia stenellus*  
Order - Lepidoptera Family: Crambidae.

## 1) Sugarcane Leaf Hopper (*Pyrilla perpusilla*):-

### Distribution:-

These sugarcane leaf hopper is commonly distributed throughout India. The great loss due to this pest has been recorded from Uttar Pradesh, Madhya Pradesh and Maharashtra. In Bihar this pest causes severe damage in West and East Champaran district.

### General appearance:-

The adult insect is pale straw in colour and very active. Its body length is about 8 to 10 mm. The head is prolonged anteriorly into snout-like structure and has prominent red eyes. A pair of whitish brown anal processes, covered with white mealy wax, are also found which help in up and downward active movement of the insect.

## Life history:-

It breeds throughout the year. The female lays eggs in clusters (300-500 eggs) on the lower surfaces of leaves during summer (April) and inside the leaf sheaths during winter (October and November). The eggs are oval, shining, pale white or greenish in colour. They are covered by white filamentous material secreted by the anal ducts of females. The clusters of eggs are arranged in 3 to 5 longitudinal rows containing 31 to 50 eggs each. The eggs are hatched into nymph after 7 to 22 of laying in summer but in winter hatching period increases. The nymph start to suck the cell sap of the leaves. After five moults, the nymph are changed into imagos and this take about 6 to 8 weeks in summer and about 4 months in winter. The life span of the adult male is 5 to 7 weeks and that of female about 5 to 8 weeks. In monsoon season the whole life cycle is completed in 40 to 60 days only. It is recorded that four overlapping generations of pyrrilla occur in year and it is difficult to say as to when one generation is started and completed. The actual periods recorded for the egg laying of first, second, third and fourth generations are April, June, August and November to December respectively.

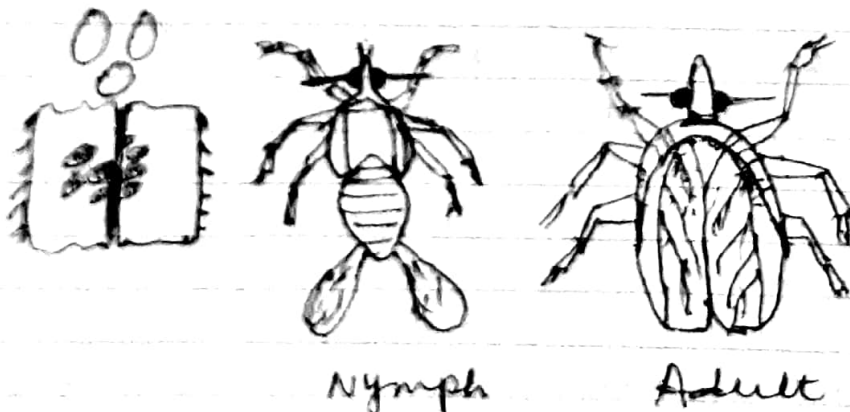


Fig. Life history of pyrrilla perpusilla

## Damages:

Both nymph and adult suck the cell sap of succulent leaves of sugarcane by their rostrum. As a result the leaves turn pale yellow and dry up they secrete a sweet sticky transparent liquid known as HONEYDEW which attract the harmful fungi resulting into a good growth of black sooty mould due to which the rate of photosynthesis is retarded thereby loss in the manufacture of food by the sugarcane plant. Because of the attack of this crop pest the quality and quantity of sugar is affected. The percent decrease of sucrose content has been recorded from 2 to 5% and the total reduction in sugar has been noticed to be about 35 percent.

## Prevention and Control:

- ① The egg masses should be collected and destroyed by burning, or spraying phenyl water.
- ② The quality of nitrogen should be well balanced in soil.
- ③ The resistant varieties of sugarcane should be taken eg. Co. 385.
- ④ ~~Rotation~~ Rotation Crops should be avoided.
- ⑤ The spraying of 0.25% endosulfan or 0.025% fenitrothion is much effective.
- ⑥ The dusting of infested crop by 5 to 10% BHC dust from September onwards is also very much effective.
- ⑦ The spraying of 0.12% to 0.25% Wettable powder of grocide at the rate of 30 to 60 gallon per acre is quite effective.

