

Pest of crops & stored grains and their management

Major Pests

Common name bot. name

family order

Damage symptoms

host range

Management

1) Thrips Stenchaetothrips biformis

Thripidae

Thysanoptera

• both nymphs & adults suck the plant sap.
• Terminal rolling & drying of leaves from tip to base.
• both in nursery & main field.

Echinochloa sp

1) Spray Endosulfan 35 EC @ 80 ml / 80 m² nursery.

2) Spray Endosulfan 35 EC 1 l in 500 l water / ha.

3) grow resistant cultivars like PTB-12, PTB-20, PTB-321, MH.

2) Green leaf hopper Nephotettix virescens
N. nigropictus
N. cincticeps

Cicadellidae

Homoptera

• both nymphs & adults decap the leaves & cause "hopper burn" due to heavy infestation.
• yellowing of leaves from tip to glabrous side.
• transmits tungro virus.

rice
willet
grasses.

1) resistant varieties like IR-20, IR-50, Vikramjyoti, vidhi, latit.

2) apply neem cake @ 1.25 kg / 800 m² nursery.
as basal dose.

3) spray Endosulfan 35 EC 1 l in 500 l water / ha.

3) BPH Nilaparvata lugens
(Brown Plant Hopper)

Delphacidae

Homoptera

• nymphs & adults suck the sap from tillers
• affected plant dies up and gives scorched appearance "hopper burn"
• Circular patches of drying and lodging of matured plants.

rice
sugarcane
grasses

1) resistant varieties like CO-46, CO-42, Divya, Neela, NTR1249, Shykraksha, Chaitanya.

2) spray Imidacloprid 17.8 SL 125 ml / ha

3) ~~use~~ neem oil (2% (10 l / ha))

Common name Bot. name
4) Mealy Bug. Brevinidia rehi

Family order
Pseudococcidae Homoptera

Damage symptom host range
• affect plants in circular patches.
- rice
- grassy areas
• insect remains in leaf sheath & suck sap
• plants become weak, yellow & stunted.
• white waxy filaments in leaf sheath.

Management
1) Spray Dimethoate 30 EC @ 500 ml/ha.
2) roguing
3) parasitoid such as Adelencyrtus sp.

Minor pests

5) White rice leaf hopper. Cogana spectra Cicadellidae

Homoptera
• nymphs & adults suck sap
• causing yellowing of leaves and stunting of tillers.

1) Endosulfan 35 EC.

6) Rice ear head bug / Rice grain bug. Leptocorisa acuta Alydidae

Homoptera
• nymphs & adults suck sap from individual grains at milky stage
• grains become chaffy with black spots at silk feeding.
• obnoxious odor in disturbing bugs.

1) Endosulfan 35 EC

Major pests

PEST OF MAIZE (ZEA MAYS)

Common name bot. name

1) Maize sheathfly Anthragonus orientalis

family order

Noctuidae Diptera

Damage symptom

- maggot feeds on young growing shoots causing "lead hearts".

host range

maize
Sorghum
ragi
bajra.

Management

- 1) resistant cultivars like DMR-5, NED, VC-80.
- 2) furrow application of lindane 6g 25kg/ha.

2) Stem borer

Cilo partellus

Crambidae

Lepidoptera

- causes "dead hearts"
- bore holes are visible on stem near nodes
- young larvae feeds on tender folded leaves causing "shot hole".

javon
bajra
sugarcane
rye.

1) resistant cultivars like

Him-123, Decan 101, Decan-103, ganga 4, 5, 7, 9, ganga safed-2.

2) light trap, insect trap, chemical combination.

3) saw lab-lab or cornsaw as an insect trap.

3) Corn worm / Ear worm / grain pod borer

Helioverpa armigera

Noctuidae

Lepidoptera

- larva feeds on silk and developing grains.

- 1) apply at silk drying stage carbaryl 10g 25kg/ha. in 500 kg water. Repeat after 15 days.

4) Minor pest

Pyrausta nubilalis

Lophopidae

Hemiptera