

Symptom of damage: Pinkish oval insects beneath leaf sheath on the nodes, with whitish mealy coating, main cane stunted also attack roots. Sooty mould develops on the plant.

Nature of damage: Both adults and nymphs suck cell sap from the plants. The insects congregate at the lower nodal regions of the stem, particularly under the leaf sheaths. The leaves often turn red at the base. Vitality of the plants is adversely affected. Ratoon crops suffer more. It also acts as vector of spike disease.

Egg: Eggs are retained in the female reproductive organs until almost fully mature. Incubation period is short. The females may bring forth hundreds of young ones parthenogenetically. An egg is yellowish, smooth, cylindrical and rounded at both ends.

Nymph: Newly emerged nymphs are quite active with a pinkish transparent body.

Adult: White with mealy coating, sessile.

#### **5. Scale insects, *Melanaspis glomerata*, Diaspididae, Hemiptera**

Symptom of damage: Dark encrustations on the internode.

Nature of damage: Both adults and nymphs remain inside the scale and suck the plant sap. This causes shriveling and stunting of canes. In susceptible varieties germination get adversely affected.

Nymph: Females multiply ovo-viviparously. The nymphs that hatch out from the eggs within the female's body come out through the genital aperture. They are called 'crawlers'. They settle after selecting suitable site for feeding.

Adult: Greyish black or brown circular scales, they cover the nodal region forming a thick encrustation.

#### **6. Black winged bug, *Proutista moesta*, Derbidae, Hemiptera**

Nature of damage: Nymphs and adults suck the plant sap.

Adult: Small, black in colour with long wings.

#### **7. Aphid, *Melanaphis sacchari*, Aphididae, Hemiptera**

Symptom of damage: Found on senescent leaves.

Nymph: Yellow in colour.

Adult: Purple when crowded.

#### **8. Skipper, *Telicota augias*, Hesperidae, Lepidoptera**

Symptom of damage: Leaves folded into tubular cells.

Nature of damage: Larva folds the leaves into tubular cells by binding the two edges together. It feeds on the leaves from margin inwards leaving behind the midrib intact.

Egg: Light yellow colour eggs laid singly on the leaves.

Larva: Green coloured with constricted neck and dark head and dark spot on the anal flap.

Pupa: Yellowish-green pupa. Pupation takes place in the leaf tube.

Adult: Brownish black butterfly with yellow patches on wings. Antenna is clubbed with curved tips.