

honeydew excretion encourages the growth of **sooty mould**. It is **not a vector** of any viral disease.

Egg: Cylindrical eggs are laid in groups when the rice plant is small but in the upper part of the rice plant when the plant is large. (They are laid with the micropylar end protruding from the tissue, the operculum is long and narrow. The eggs in a group are not sealed together by the material secreted by female.)

Nymph: White to a strongly mottled dark grey or black and white in colour and 0.6 mm size when young. Fifth instar nymph with a narrow head and white or creamy white body. Dorsal surface of the thorax and abdomen marked with various amounts of grey and white markings.

Adult: The adult hopper is 3.5-4.0 mm long. The forewings are uniformly hyaline with dark veins. There is a prominent white band between the junctures of the wings. **Macropterous** males and females and **brachypterous** females are commonly found in the field.

5. **Mealy bug**, *Brevinnia rehi*, Pseudococcidae, Hemiptera

Symptom of attack: The infestation starts in plants one or two month after transplanting. **Stunted, circular patches** may be seen in the fields. If such plants are pulled out and teased the insects can be seen at the base of the leaves and leaf sheaths.

Nature of damage: Large number of these insects' remains inside the leaf sheaths and suck up the plant sap. The affected tillers remain stunted with yellowish curled leaves. When the attack is severe, it inhibits panicle emergence. This type of disease is called as **Soorai** disease in Tamil Nadu. The damage occurs from September. In severe cases, yield may be reduced even upto 50%.

Egg: The female lays numerous yellowish white eggs/ simply deposits nymphs in outer leaf sheaths.

Nymph: The newly hatched nymphs crowded within the waxy threads for 6-10 h before they disperse to various parts of the same plant. The pale yellowish nymph is active and crawls about the plant for a while and settled itself on the plant/ stem and turns dark yellow after a day. Body gets covered with waxy material on second day.

Adult: Nymphs and adults being wingless look alike. Females are reddish, oval, soft-bodied living in colonies inside the leaf sheath. Males are small, slender, pale-yellow, having single pair of wings and a style like process at the end of the abdomen but lack mouthparts. Males are seldom found in the colonies, so it reproduces parthenogenetically.

6. **Black bug**, *Scotinophara lurida*, Podopidae, Hemiptera

Symptom of attack: Presence of bugs at the base of the stem just above the water level. Plants stunted with reduced number of tillers; leaves turn **reddish brown and dry**.

Nature of damage: The bugs remain and feed the plant sap on the base of the plants causing stunting of plants. Leaves turn reddish brown and grains do not develop. Bugs feed on the panicles in milky stage result in brown spots or empty grains in the panicles. Heavy bug infestation may cause death to the plants and whole field appears burned called **bug burn** similar to hopper burn.