

SAP FEEDERS

1. Bean aphid, *Aphis craccivora*, Aphididae, Hemiptera

Symptom of damage: Presence of aphid colonies on the leaves, terminal shoots and pods. In severe cases, the plants wither and vigour reduced.

Nature of damage: Colonies of nymphs and adults found on leaves, terminal shoots and pods and such the plant sap. Vector of stunt disease in chickpea, rosette of groundnut. Serious pest when the rainfall is low.

Nymph: Newly laid nymph is translucent with reddish brown compound eyes. After a couple of minutes changes to light yellow. After about 30 minutes, the nymph starts moving and in an hour starts feeding.

Adult: Apterous females are shiny, dark brown or black. Alate forms are greenish black with transparent wings.

2. Thrips, *Ayyaria chaetophora*, Thripidae, Thysanoptera

Symptom of damage: Leaves mottled with characteristic silvering on lablab, green gram, black gram and cowpea.

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

Adult: Tiny yellow fringe winged adults.

3. Whitefly, *Bemisia tabaci*, Aleyrodidae, Hemiptera

Symptom of damage: Yellowing of leaves, plant vitality reduced, development of sooty mould, plant dies in case of severe attack.

Nature of damage: Nymphs and adults suck the plant sap and also transmits yellow mosaic virus (YMV).

Egg: Stalked, sub-elliptical, light yellow at first, and turning brown later on. Eggs laid singly on adaxial (lower) side of leaves.

Nymph: Elliptical on emergence, soon they fix their mouthparts into the plant tissues and feed on the cell sap. Greenish yellow, oval on undersurface of leaves.

Adult: Small with yellow body covered with white waxy bloom.

4. Green leafhopper, *Empoasca kerri*, *Empoasca binotata*, Cicadellidae, Hemiptera

Symptom of damage: Affected leaves turn pale and then rust-red. They curl downwards; in severe cases, show 'hopper burn' symptom, dry and fall to the ground.

Nature of damage: Nymphs and adults suck the sap and inject toxins.

Egg: Yellow, laid on the underside of the leaf, embedding them into the leaf veins.

Nymph: Wedge-shaped, very active, suck cell sap from underside of the leaves

Adult: 3 mm long, greenish yellow during the summer acquiring a reddish tinge in the winter. Adults move briskly, forward and laterally and jump or fly away at slight disturbance and attracted to light at night.