

Lecture 07

6- Cotton or Melon Aphid *Aphis gossypii* Glover (Homoptera: Aphididae)

Description:

Egg: When first deposited, the eggs are yellow, but they soon become shiny black in color.

Nymph: The nymphs vary in color from tan to grey or green, and often are marked with dark head, thorax and wing pads, and with the distal portion of the abdomen dark green. The body is dull in color because it is dusted with wax secretions. During periods stressful to the host plant, small yellow or white forms of the aphid are also produced.

Adult: The **wingless (apterous)** parthenogenetic females are 1 to 2 mm in length. The body is quite variable in color: light green mottled with dark green is most common. **Winged (alate)** parthenogenetic females measure 1.1 to 1.7 mm in length. The head and thorax are black, and the abdomen yellowish green except for the tip of the abdomen, which is darker. The wing veins are brown.

Damage:

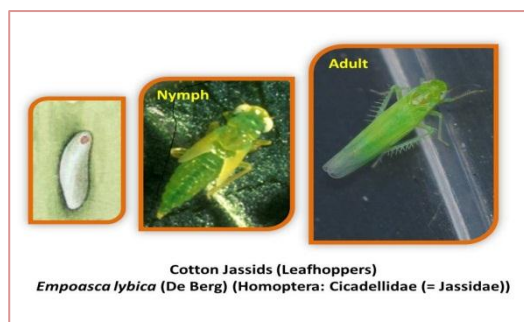
The leaves are cupped or otherwise distorted, with clusters of soft, greenish or blackish aphids on young shoots and on the undersides of young leaves. Drops of sticky honey-dew and or patches of sooty mould on the upper sides of leaves.



7- Cotton Jassids (Leafhoppers) *Empoasca lybica* (De Berg) (Homoptera: Cicadellidae (Jassidae))

Description:

The **eggs** are greenish, banana-shaped and about 0.8 mm long. There are five **nymphal instars**; the full-grown nymphs are yellowish-green, about 2 mm long. **Adults** are pale green, narrow-bodied, about 2.5 mm in length. The wings are semi-transparent and extend beyond the end of the body. The adult hops and flies very readily if disturbed, or like the nymph, runs quickly sideways.



Damage:

The edges of leaves are down-curved and turn first yellow and then red. In severe attacks leaves may dry up and be shed. On the undersides of leaves numerous pale green can be found which may move rapidly sideways when disturbed.



8- Black field cricket *Teleogryllus commodus* (Walker) Orthoptera: Gryllidae

Description:

The 3mm **eggs** are white and sausage-shaped. The **nymphs** are like small adults, but their wings and ovipositors are undeveloped.

Adult crickets are up to 30mm, black or brown with long antennae and grasshopper like hind legs. Females have a long pin at the end of the abdomen which is its ovipositor.



Damage:

They may damage cotton occasionally in large numbers. The adults and late stage nymphs feed on the leaves and stems of seedlings and may reduce a stand to the extent that replanting is necessary.

Insects of Industrial Crops (Sugar Beet Insects)

The Insects of Sugar Beet:

- 1- Sugar Beet Armyworm
- 2- Sugar Beet Moth
- 3- Sugar Beet Fly
- 4- Cabbage Flea Beetle
- 5- Black Cutworm
- 6- Cotton Jassids (Leafhoppers)
- 7- Cotton Leaf Worm
- 8- Cicada
- 9- Mole Cricket
- 10- Black Bean Aphid

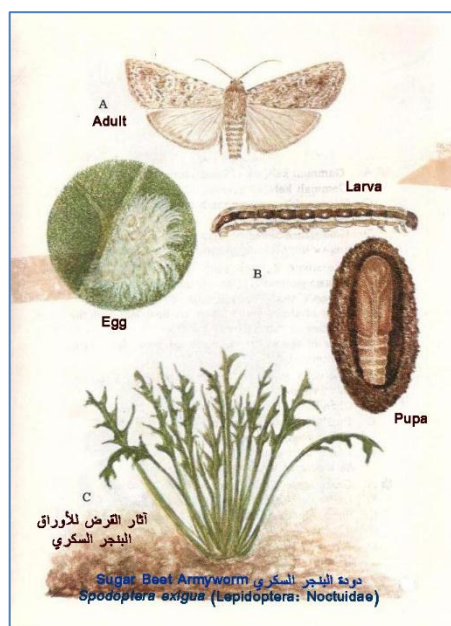
1-Sugar Beet Armyworm *Spodoptera exigua* (Hbst.) (Lepidoptera: Noctuidae)

Description:

The **eggs** are greenish to white in color, and covered with a layer of whitish scales that gives the egg mass a fuzzy or cottony appearance. The **larvae** are pale green or yellow in color during the first and second instars, but acquire pale stripes during the third instar. During the fourth instar, larvae are darker dorsally, and possess a dark lateral stripe. Larvae

during the fifth instar are green dorsally with pink or yellow color ventrally and a white stripe laterally. The **pupa** is light brown in color and measures about 15 to 20 mm in length.

The **moths** are moderately sized, the wing span measuring 25 to 30 mm. The forewings are mottled grey and brown, and normally with an irregular banding pattern and a light colored bean-shaped spot. The hind wings are a more uniform gray or white color, and trimmed with a dark line at the margin.



Damage:

The larvae are gregarious and may feed in large swarms, when defoliation may be serious; young plants are killed but older plants may recover, and cereals tiller.

2- Brown sugarcane cicada *Cicadetta crucifera* (Hemiptera: Cicadidae)

Description:

Eggs are small about 2 mm. The first four **nymphal** stages are white. Fully grown **female nymphs** are 15 mm long, and **males** are up to 12 mm long.



Damage:

Cicada nymphs tunnel in the soil beside the roots where they suck the sap and complete their growth.

Crops heavily infested with cicada nymphs fail to ratoon. Lightly infested stools ratoon poorly and fields look gappy. Sometimes, small ratoon shoots become yellow and withered at the leaf tips and edges and then die. Areas of complete failure are surrounded by zones of poor growth.

Damage is most common in old ratoons. Ploughout /replant of infested areas lead to increased cicada damage, as early as first ratoon.

Cicada nymphs are found by digging. If nymphs have already emerged, their skins may be seen on the soil surface.

Light damage occurs with as few as 20 nymphs per stool. Moderately damaged stools commonly have 40-60 nymphs/ stool. Heavily damaged (dead) stools have 80-300 nymphs per stool.