

Lecture 02

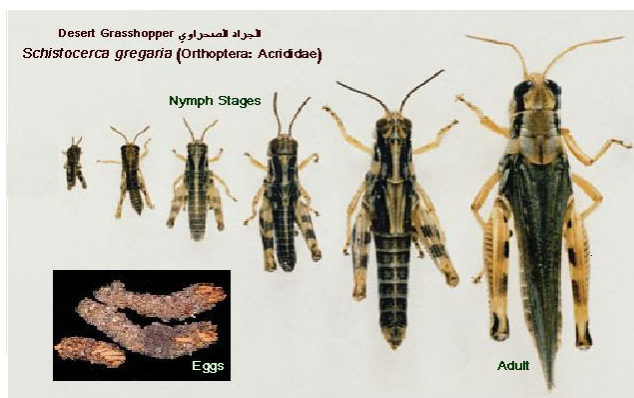
Common Insect Pests

- 1- Locust and Grasshoppers
(Desert Locust, Egyptian Grasshopper)**
- 2-Mole Cricket**
- 3-Wire Worms or Click Beetle**
- 4-Spring Webworm**
- 5-Termites (White Ant)**
- 6-Ant**
- 7-Field Cricket**

1- Desert Locust, *Schistocerca gregaria* (Orthoptera: Acrididae)

Description:

The **egg** is oval, and 1.2–1.3 mm long by 0.7–0.8 mm broad. The first **nymphs** find its way through the egg pod to the soil surface. There it molts and become a "hopper". Hoppers have 5 instars before becoming an adult. There are solitary and gregarious hoppers. Those two phases differ in colour and behavior. In swarms, **adults** are pink at the first but may become rose, brown or orange brown when conditions are cool, e. g. in mountains. The color changes to bright yellow in males and dull yellow in females when they become a mature. In solitaries forms the color is grayish or brownish, but males may become yellow when they mature. Males are 40-50 mm; females are 50-60 mm long. The translucent forewings are greenish yellow with many brown spots.



Damage:

Desert locusts can consume the approximate equivalent of their body mass each day (2 g) in green vegetation: leaves, flowers, bark, stems, fruit, and seeds.

The leaves, and soft shoots, are eaten from the margin inwards leaving irregularly shaped feeding marks. Swarm damage usually results in complete defoliation of the crop.

2- Egyptian Grasshopper, *Anacridium aegyptium* (Orthoptera: Acrididae)

Description:

The young grasshoppers are tiny when they first emerge as nymphs and can be found in a variety of colors including bright green. The **adult** grasshoppers are generally grey, brown or olive colored with variable patterns that allows them good camouflage against tree bark and other vegetation; green individuals may occur, but very infrequently. The adult males grow up to 30–55 millimeters long, while females reach 65–70 millimeters of length.



Damage:

Grasshoppers are highly mobile, and usually fly with the wind at a speed of about 15-20 km/h. Swarms can travel (5-130 km or more in a day). An adult Grasshopper can consume its own weight (about 2 grams) in fresh food per day. For every million grasshoppers, one ton of food is eaten. In certain circumstances this species may develop a tendency to gregariousness with formation of very numerous aggregates, potentially harmful to crops.

3- Mole Cricket, *Gryllotalpa gryllotalpa* (Orthoptera: Gryllotalpidae)

Description:

The **eggs** are oval, brown, and 1.5 mm long. There are 9–11 instars and the total **nymphal** period lasts for ten months. The **adult** cricket is about 2.5 cm long, brown, and covered with short setae giving it a velvety appearance. The wings are folded and do not cover the full length of the abdomen. The forelegs are broad and curved and clearly adapted for digging. Like the nymphs the adults live in burrows or shelter under pieces of trash in the daytime and feed at night.



Eggs



Metamorphosis



Adult

Damage:

Heaps of soil marks the entrances to extensive burrows in the soil. Plants wilt owing to destruction of roots. Small seedlings may disappear completely during the night. Buds are eaten from sugarcane sets; potato tubers are tunneled.

4- Click Beetle, *Agriotes* Sp. **(Coleoptera: Elateridae)**

Description:

Click beetles are usually black or brown, with some species bearing red or yellow markings. Most fall within the 12-30 mm range in length. They're easiest to recognize by shape: elongate, parallel-sided, with rounded front and hind ends. The antennae are almost always **serrate** in form, though some may be filiform or pectinate.

Click beetle larvae are often called wireworms. They're slender and long, with shiny, tough segmented bodies.



Damage:

Adult click beetles feed on plants. Most larvae also feed on plants, but they tend to prefer newly planted seeds or plant roots, making them a pest of agricultural crops. Some click beetle larvae inhabit decomposing logs, where they hunt other insects.

5- Termites, *Macrocerotermis diversus* **(Isoptera: Termitidae)**

Description:

Termites are small to medium-sized insects. Although referred to in older literature as “white ants,” termites are unrelated to ants. Mature colonies are composed of task-specific castes that typically include one or more pairs of reproductive, about 0–25% soldiers, and a majority of immature or sterile workers.

Damage:

About 10% of the termite species worldwide attack structural lumber, wood products of a broad array including paper, and agricultural and forage crops. About 1–2% of all species are major pests and account for the bulk of the untold billions of dollars in damage caused by termites around the world each year.

