

Fall Armyworm: Life cycle and damage to Maize

The Fall armyworm lifecycle includes egg, 6 growth stages of caterpillar development (instars), pupa and moth.

This diagram illustrates the lifecycle, showing where the Fall armyworm is usually found on maize plants at any given stage.

After approximately **14 days** the fully grown caterpillar will drop to the ground.

GROWTH STAGES 4-6

By stage 3-6 it will have reached the protective region of the whorl, where it does the most damage, resulting in ragged holes in the leaves.

Feeding on young plants can kill the growing point resulting in no new leaves or cobs developing.

Often only 1 or 2 caterpillars found in each whorl, as they become cannibalistic when larger and will eat each other to reduce competition for food.

Large quantities of frass (caterpillar poo) present. When this dries it resembles sawdust.

If the plant is older and has already developed cobs then the caterpillar will eat its way through the protective leaf bracts into the side of the cob where it begins to feed on the developing kernels (seeds).

GROWTH STAGES 1-3

After hatching the young caterpillars feed superficially, usually on the undersides of leaves. Feeding results in semitransparent patches on the leaves called windows.

Young caterpillars can spin silken threads which catch the wind and transport the caterpillars to a new plant.

The leaf whorl is preferred in young plants, whereas the leaves around the cob silks are attractive in older plants.

Feeding is more active during the night.

100-200 eggs are generally laid on the underside of the leaves typically near the base of the plant, close to the junction of the leaf and the stem. These are covered in protective scales rubbed off from the moths abdomen after laying.

When populations are high then the eggs may be laid higher up the plants or on nearby vegetation.

After approximately **8-9 days** the adult moth emerges to restart the cycle.

The caterpillar will then **burrow 2-8 cm into the soil** before pupating.

The loose silk oval shape cocoon is **20-30 mm in length**.

If the soil is too hard then the caterpillar will cover itself in leaf debris before pupating.

DAY 6-14

DAY 3-6

DAY 1-3

