

Identifying Fall armyworm

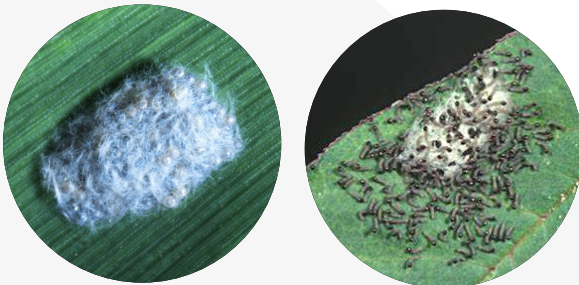
(Spodoptera frugiperda)

Fall armyworm has four life stages: eggs, larvae (caterpillars), pupa and adult (moth). However identifying fall armyworm from the eggs, pupa and moths is very difficult.

What to look for

Egg mass

Pale yellow and laid as an egg mass of about 100 to 200 eggs. Egg masses are laid on leaves and covered with a layer of silk-like furry substance.



Larvae – Early instar larvae (caterpillars), stages 1–3

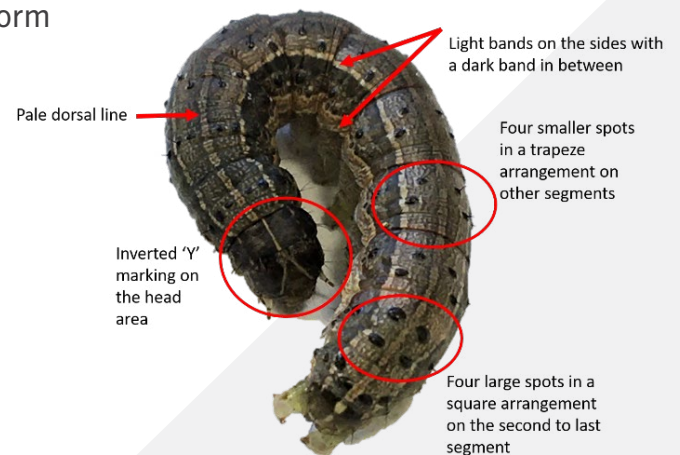
Larval appearance changes with development throughout the life cycle. When larvae first hatch from eggs, they are light coloured with a relatively larger dark head compared to the rest of the body. Molecular testing or rearing up of the caterpillars may be required to confirm identification at this stage.

FAW: young larvae – length 6-9 mm

Top view



Young fall armyworm larvae (6-9 mm). D Visser ARC-VOP Rooideplaat



Fall armyworm larvae have key identification features, including four large spots in a square arrangement on the second last segment.

Larvae – Mid to late instar larvae (caterpillars), stages 4–6

Features to look for in older larvae include:

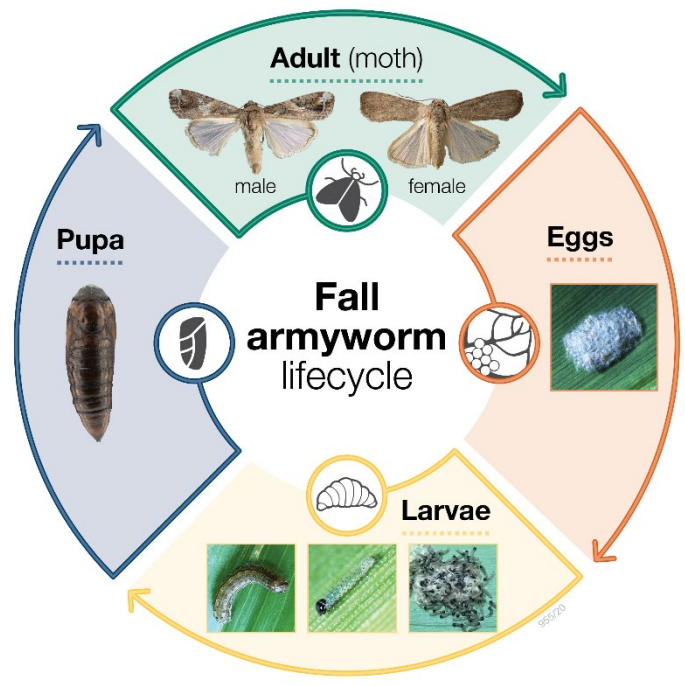
- » Inverted white 'Y' mark on the head between the eyes.
- » More prominent thin white lines develop down the length of the body.
- » Light-coloured bands on the sides with a dark-coloured band between them.
- » Four large black dots in a square formation on posterior upper body segment eight (i.e. the second last abdominal segment near the end of the caterpillar).
- » Four smaller dots in a trapeze arrangement on dorsal surface of all other segments, including the segment at the end of the caterpillar.
- » Sclerotised (hardened) rings around hairs at front and back of caterpillar.
- » Body colour can vary from pinkish to dark brown.
- » Late instar larvae are about 35mm long.

FAW: mature larvae – length 30-36 mm

Top view



Mature fall armyworms (30-36 mm). D. Visser ARC-VOP Roodeplaat



Pupae

Pupae are 13–17 mm long and shiny brown. Pupation occurs in soil, reproductive plant parts, or if larvae cannot burrow into the soil, cocoons are formed in plant debris.

Adult moths

Adults are 16–18 mm long, and a wingspan of 38 mm, with brown-grey forewings and cream-coloured hind wings.

Fall armyworm appears similar to the closely related species *Spodoptera litura* (tropical armyworm) which is present in New Zealand. Adult moths are nocturnal and most active during late summer and early autumn.

It can easily be mistaken for other species so if you suspect fall armyworm, take a photo and call our Exotic Pest and Disease Hotline on 0800 80 99 66 or report online report.mpi.govt.nz/pest

