

Fall armyworm on maize

Spodoptera frugiperda Fall armyworm



Caterpillar showing the pale, upside-down Y-shape on the head and the 4 spots on the second-to-last segment (Rob Reeder, CABI)



Fall armyworm damage in whorl of maize (Victor Clotey, CABI)



Egg mass of *S. frugiperda* (Desiree van Heerden, Syngenta)

Prevention	Monitoring	Direct Control
<ul style="list-style-type: none"> Plant early to avoid peak immigration of adults Use a mixture of maize varieties when planting; varieties showing resistance/tolerance, short duration or increased leaf toughness. Avoid staggered plantings (plots of different ages) Use recommended fertilizer rates Use weeds early in the crop cycle to act as a trap crop, remove and destroy when the caterpillars are developing and feeding on the weeds. As the crop grows, keep the surrounding of the plot free of grass weeds Conserve shelters and flowering plants on the edges for beneficial insects such as ground beetles and parasitoids Intercrop maize with crops not susceptible to FAW such as cassava or yam, or with less susceptible crops Avoid spraying insecticides early in the crop cycle as this will kill natural enemies that control the pest, and it might not be economical Do not move infested plant material from the farm to reduce spread 	<ul style="list-style-type: none"> Adult: grey-brown moth Egg mass: cream/grey groups of 150-200 eggs covered in silk located on the underside of the leaves Caterpillars: light green to dark brown with longitudinal stripes. Dark head with an upside down pale Y-shaped marking on the front. The second-to-last body segment has four dark spots forming a square (3rd instar and above) The young caterpillars feed on leaves causing light coloured patches (called "window panes") to large ragged and elongated holes in the leaves emerging from the whorl. Large caterpillars move to the whorl where they are protected and feed inside the funnels causing an accumulation of frass. Occasionally, large caterpillars can also burrow into the side of the cobs and feed on the kernels, which can lead to rot. Along a diagonal transect in the field, monitor weekly for presence of the pest or symptoms from emergence. Record percentage of damage on 100 plants. Consider taking control measures if more than 20% of whorls are damaged, small larvae can be found and the plants have not yet flowered/tasseled . If your plants have flowered/tasseled and small larvae can be found then consider taking control measures if more than 40% of whorls are damaged. 	<ul style="list-style-type: none"> If only the leaves of young plants are attacked (and not the growing point), compensate the damage by applying recommended fertilizers by the MoA and by irrigating the field so the plants recover from the attack. On small-scale farms, handpick and destroy the egg masses and larvae If available, spray young caterpillars with neem-based products before they enter the ears or whorl

Note: Pesticides may be available to control this pest. Please check with the Ministry of Agriculture in your country to find out which pesticides are registered in your country and the local restrictions for their use.