

Fall armyworm on millet

Spodoptera frugiperda



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



Fall armyworm caterpillar showing "four-dot square" and "Y" marking (Russ Ottens, University of Georgia, Bugwood.org)

Prevention	Monitoring	Direct Control
<ul style="list-style-type: none"> • Avoid late planting to escape the pest attack. Plant immediately the onset of the rain, when the occurrence of the pest in the area is still low • Deep plough the soil to expose insect stages hiding underground to birds and other natural enemies • Use good quality seeds to increase plant vigour and potentially reduce damage • Use millet varieties showing resistance/tolerance. Absence of foliage pubescence has been shown to reduce oviposition • Use short maturing millet varieties to escape the pest outbreak that might occur later in the season • Avoid staggered planting (planting at different dates in the same field), as this provides a continuous source of food for the pest • Ensure optimum use of fertilizer for strong millet plants able to withstand or compensate for pest damage and apply at the right time • Intercropping with legumes helps to reduce pest pressure on both the millet and legume crops and supports natural enemies • Conserve shelters and flowering plants on the edges for beneficial insects such as ground beetles and parasitoids 	<ul style="list-style-type: none"> • Monitor weekly for presence of the pest or symptoms such as fresh leaf damage or frass. Monitoring is important because you may reduce the cost of treating the whole field if you catch the larvae early • 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) • Caterpillars also feed during the night and completely defoliate the leaves, leaving only the midrib. Sometimes they also damage the earhead. • Egg mass: Cream/grey groups of 150-200 eggs covered in silk located on the underside or top of the leaves • Millet is very tolerant of whorl stage defoliation. Treat when 50% whorls are infested and larvae are present. • Use a pheromone with the Universal Bucket Trap to estimate adult moth population 	<ul style="list-style-type: none"> • 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 whorl • Use microbial biopesticides based on bacteria, fungi and viruses if available

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.