

Fall armyworm on wheat

Spodoptera frugiperda



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



Early damage: "window pane" (Phil Sloderbeck, Kansas State University, Department of Entomology)



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 or off-season planting and avoid planting new crop near infested fields • Avoid staggered planting (planting at different dates in the same field), as this provides a continuous source of food for the pest • Use short maturing and less preferred wheat varieties to escape the pest infestation that might occur later in the season • Ensure optimum use of fertilizer for wheat plants to be able to compensate for damage done and apply at the right time • Conserve shelters and flowering plants on the edges for beneficial insects such as ground beetles and parasitoids • Destruction of volunteer wheat and weedy grasses in ditches around field margins can eliminate these sources of armyworms • Rapid disposal of wheat residues after harvest 	<ul style="list-style-type: none"> • After germination of seedlings, scout fields, at 5 or more spots, weekly (starting from the field margin) for larvae on plants and whether the problem is widespread or confined to certain areas or edges. • 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) • Look for leaves that seem to have had all of their green tissue removed which gives the leaf a "window pane" appearance. Examine some plants showing evidence of injury, and look for small caterpillars. The suggested treatment threshold is 2-3 larvae per linear foot of row in wheat with active feeding symptoms. • Fall armyworm larvae feed primarily during the night and during cloudy weather. During the day, look for armyworms under loose soil and fallen leaves on the ground. • Use a pheromone with the Universal Bucket Trap to estimate adult moth population 	<ul style="list-style-type: none"> • If available, spray young caterpillars with neem-based products before they move to neighbouring plants • 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.