

# Fall Armyworm.

*Spodoptera frugiperda*

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Damage on the funnel by larvae (Photo: M. Kasina, KALRO, Kenya)</p>	<ul style="list-style-type: none"> <li>◆ Plough deep to expose the pupae to predators and solar heat</li> <li>◆ Avoid late or off-season planting, plant early to avoid pest population build up.</li> <li>◆ Plant maize varieties with hard husk cover to prevent the pest from entering the cob</li> <li>◆ Keep field weed free to remove alternate hosts</li> <li>◆ Plant at correct spacing and ensure optimum use of fertilizer</li> <li>◆ Avoid planting new crop near infested plants</li> <li>◆ Do not move infested maize materials from one area to another to reduce spreading the pest instead graze livestock on them or make silage.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Start monitoring for the pest one week after germination</li> <li>◆ Look for cream / grey egg masses covered in a felt-like layer of grey-pink scales on the underside of leaves</li> <li>◆ Look for a green, brown or black larva. A mature caterpillar has a distinct white line between the eyes which form an inverted “Y” pattern on the face with pronounced four black spots aligned in a square on the top of the 8th segment near the back end</li> <li>◆ Look for small shot or large ragged and elongated holes on the leaves and inside whorls of young plants</li> <li>◆ Set up at least one FAW specific pheromone trap per Ha to detect the pest</li> <li>◆ Monitor damage on 10 consecutive plants in 10 randomly selected sites. Apply relevant measures if 10% of plants are infested</li> </ul>	<ul style="list-style-type: none"> <li>◆ Handpick and squash or drop caterpillar in hot water. Killing one caterpillar prevents more than 1500 new caterpillars after a period 4 weeks.</li> <li>◆ Put a half handful of sand / sawdust or soil in the whorl of the attacked plants to kill the larvae.</li> <li>◆ Apply a pinch of 50gm groundhot pepper + 2kg ash into plant funnel at knee-high.</li> <li>◆ Release egg parasitoid <i>Trichogramma</i> spp at a rate of 50,000 to 100,000 eggs per acre</li> <li>◆ Spray <i>Bacillus thuringiensis</i> var <i>azawai</i> to control the pest</li> <li>◆ Spray neem based product (50ml/20l of water).</li> <li>◆ Mass trap the pest (4-6 pheromone traps per (HA)</li> </ul>	<ul style="list-style-type: none"> <li>◆ Lambda-cyhalothrin</li> <li>◆ Alpha-Cypermethrin</li> <li>◆ Chlorpyrifos</li> <li>◆ Spinosad</li> </ul>	<ul style="list-style-type: none"> <li>◆ Insecticides effective on young larvae and before they enter the funnel and ear</li> <li>◆ Apply minimum 3 spays, 2 weeks after emergence at knee high and before tasseling</li> <li>◆ WHO Class II (Moderately hazardous)</li> <li>◆ REI 24hours, PHI 3days</li> <li>◆ WHO class II (moderately hazardous).</li> <li>◆ REI is 24hours</li> <li>◆ WHO Class II (Moderately hazardous)</li> <li>◆ PHI 14days, MRL 1mg/kg</li> <li>◆ WHO class III (slightly hazardous)</li> <li>◆ Toxic to honey bees; Avoid spraying during flowering and near water ways;) and PHI 3 days, REI 12Hours</li> </ul>
 <p>Y” pattern on head of Armyworm larva (Photo: desiree vanheerden Syngenta)</p>					

## Kenya

CREATED: March 2017.

AUTHORS: Miriam Otipa and Muo Kasina(KALRO), Margaret Mulaa(CABI), Teresa Karanja and David Mwangi (MOAL&F)

EDITED BY: Edited by Plantwise CABI.

