




Southern armyworm (SAW) on tomato

Spodoptera eridania

	Prevention	Monitoring	Direct Control
 <p>Eggs of SAW, <i>Spodoptera eridania</i> (Lyle J. Buss, University of Florida)</p>	<ul style="list-style-type: none"> ● Avoid planting new crops near infested fields and staggered plantings (plots of different ages). Avoid continuously growing tomatoes. ● Avoid late planting or off-season planting. ● Grow seedlings in nurseries and seal doors and window frames. Fix any holes/openings that appear in the plastic or mesh. ● Use polytunnels in the field to cover small plants to prevent the pest from laying eggs. ● Plant natural barriers around the tomato field such as maize or sorghum. ● Avoid crop rotation with other Solanaceous crops such as eggplants, peppers and potatoes. ● Plant a diverse range of crops on the farm. ● Conserve shelters and flowering plants on the edges for beneficial insects such as ground beetles and egg parasitoids <i>Trichogramma</i> and <i>Telenomus</i> spp. ● Avoid spraying insecticides early in the crop cycle as this will kill natural enemies that control the pest, and may not be economical. ● Do not move infested plant material from the farm to reduce spread. 	<ul style="list-style-type: none"> ● Start monitoring as soon as the plant emerges. ● Monitor 10 consecutive plants in 10 locations of the field. ● Look for creamy/grey egg masses covered in silk located on the underside or top of the leaves and on the stems. Egg masses of other <i>Spodoptera</i> species look very similar. ● Look for caterpillars, often on the underside of leaves, in early morning or evening hours and an accumulation of insect droppings (frass) on leaves and stems. ● Young caterpillars (1-3 mm long): initially whitish with a dark brown to black head. As they grow, they develop whiteish or yellowish lines along the body. ● Older caterpillars are up to 35-40 mm long when fully grown with a wide variation of body colours, including reddish, green, brown, grey and black: <ul style="list-style-type: none"> ● Some caterpillars are black with yellow lines on the sides, but others are grey-brown with a row of paired black triangular spots on the back, and reddish lines just below these. Prominent black markings closely resemble those seen on <i>S. littoralis</i> and <i>S. litura</i> caterpillars. ● Can be distinguished from <i>S. littoralis</i> and <i>S. litura</i> by the weakening of the prominent whitish yellow line of <i>S. eridania</i>. The line is just below or bordering the spiracles (small breathing holes). The line is less intense in front of the dark spot on the first legless segment. ● Please note: the weakening of this line is sometimes not obvious ● The head is yellow-brown or light orange brown, often with a net-like pattern. ● Look for jagged holes in the leaves, or even skeletonization of the leaves. ● Look for hole bores in the fruit. ● Look for shiny mahogany brown pupae in the soil, 16-20 mm long. These look very similar to the pupae of other <i>Spodoptera</i> species. 	<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. ● Use yellow sticky traps to trap the adults (moths). Follow product label for usage guidance. ● In the dry season, practice 15 to 30 days of free crops in the field to break the pest life cycle
 <p>SAW second and third instar larvae on tomatoes (Lyle J. Buss, University of Florida)</p>			
 <p>Prominent black markings on SAW mature larvae (Lyle J. Buss, University of Florida)</p>			

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.