




Sorghum stem borers

Busseola fusca, *Chilo partellus*, *Sesamia calamistis*

	Prevention	Monitoring	Direct Control
 <p>Larvae <i>Busseola fusca</i> (D. Cugala, Stemborer team, icipe)</p>  <p>Damage on maize stem caused by <i>B. fusca</i> (George Mwembe)</p>  <p>Damage on maize leaf caused by <i>B. fusca</i> (Teresia Kodwaran, Kenya)</p>	<ul style="list-style-type: none"> Plant early to avoid a serious infestation Applying nitrogen, either a commercial product or manure or compost, to enhance the crop's tolerance to an attack Implement a 'push-pull' system in which <i>Desmodium</i>, a repellent plant, and Napier grass, a trap crop, are intercropped with maize or sorghum to lure the insect away from the crop Intercrop with non-host plants, such as cowpeas or cassava to reduce damage. Adult moths will lay eggs on the non-host plants, but the larvae are unable to feed on them and will die Rotate sorghum with a non-host plant, e.g. a legume, to prevent the build-up of the pest in the field and to increase the nitrogen in the soil which will make the next sorghum crop hardier and less susceptible to an attack Maintain habitat to conserve parasitoids and predators such as ants and earwigs 	<ul style="list-style-type: none"> Additional relevant crops: maize, pearl millet, sugarcane, wheat, rice and several wild grass species Monitor from 3 weeks after planting onwards. Inspect two times per week until plants flower Take action when there are 3 to 10 larvae on each plant out of 100 plants Look out for: <ul style="list-style-type: none"> Leaves: Holes on leaf funnels and eggs on the underside of leaves near the funnels Stems: Weak. Feeding damage to growing points, preventing flowering. Dead heart - the central shoot withers and dries Heads: chaffy Cut open the stems of a few plants that show symptoms to look for larvae and pupae Pink stem borers do not usually feed on the young leaves, so are less likely to cause the holes and scars symptoms that are typically associated with the spotted stem borer and African maize stalk borer Eggs: creamy white/yellowish brown, about 1 mm in diameter, sometimes darken as they develop Larvae: creamy white to yellowish brown, possibly with grey or pink tint, brown head, up to 40 mm long, possibly with dark spots and purple stripes on back Pupae: up to 25 mm long, shiny light yellow-brown to dark red-brown Adults: Wings vary in colour: light brown/light yellow brown with dark patterns, greyish brown. Forewings different to hind wings which are often white. Wingspan up to 33 mm 	<ul style="list-style-type: none"> Release parasitic wasps such as <i>Cotesia flavipes</i> or <i>Xanthopimpla stemmator</i> if locally available to control the spotted stem borer Release parasitic wasps such as <i>Cotesia sesamia</i> or <i>Pediobius furrus</i> to control the African pink stem borer Destroy crop residues after harvest to reduce populations and limit the pest the following season. Stems should be burned, fed to livestock or dried on the ground under full exposure of the sun's heat

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.