

Spotted stem borer on maize

Chilo partellus



Chilo partellus caterpillar (NBAIR)



Moth of *Chilo partellus* (©Georg Goergen/IITA Insect Museum, Cotonou, Benin)



Damage on stem and leaves on maize (S. Eyres, Department of Agriculture WA)

Prevention	Monitoring	Direct Control
<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 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 maize 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 maize crop hardier and less susceptible to an attack. Avoid crop rotation with sorghum, pearl millet, sugarcane, wheat or rice. Maintain habitat to conserve parasitoids and predators such as ants and earwigs. 	<ul style="list-style-type: none"> Start monitoring weekly 3 weeks after planting. Consider early control when 5-10% of young plants are damaged (feeding holes in leaves). Look out for: <ul style="list-style-type: none"> Leaves: Holes on leaf funnels and eggs on the underside of leaves near the funnels. Caterpillars are found in leaf funnels. Stems: Weak. Feeding damage to growing points, preventing flowering. Dead heart - the central shoot withers and dries. Older caterpillars burrow into stems and into cobs. Cut open the stems of a few plants that show symptoms to look for larvae and pupae. Eggs: scale-like, creamy white laid in overlapping batches. Larvae: creamy white to yellowish brown body with dark-brown dorsal spots and 4 purple stripes on back with a reddish-brown head, up to 25 mm long. Pupae: up to 15 mm long, light yellow-brown to dark red-brown. Adults: small moths with light yellow brown forewings different to hindwings which are often white. Wingspan up to 17 mm. 	<ul style="list-style-type: none"> Release parasitic wasps such as <i>Cotesia flavipes</i> or <i>Trichogramma chilonis</i> if locally available to control the larvae and eggs. 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. Use neem-based products to spray on young plants every 10-14 days until flowering if threshold is reached (follow instructions on labels) to kill eggs and larvae and prevent them from feeding on young crops.

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.