

Toppling of Banana

Recognize the problem

Toppling in Banana is a very serious problem in Grenada. Either the banana borer/banana weevil (*Cosmopolites sordidus*), or the banana spiral nematode (*Helicotylenchus multicinctus*) or heavy winds cause the problem. Profits to farmers can be significantly reduced by about 30-40% annually.

Background

Poor field sanitation and nutrition are predisposing factors for the problem to develop and spread. Both the nematode and the larvae of the borer can be transmitted in the corm and/or roots from one plant to the next. The larvae of the borer attack the corm and cause much tunnelling in the process. The nematodes attack the roots, resulting in poor uptake of fertilizer and severe weakening of the root system thus causing toppling. Look for tunnels or brown roots to indicate what is causing toppling of the plants.

Management

- Establish banana fields with clean planting material only to prevent transmitting the nematodes or borer
- Prepare planting material at the edge of the old field before bringing to the new site. Also remove and leave behind any dead leaf sheaths that are attached to the corm.
- Alternatively, use material from tissue culture, if available
- Keep your field clean by means of regular detrashing, pruning and weed control. Always chop toppled or harvested plants and old pseudostems to remove food source from the borer.
- Lie freshly split pseudostems cut side down on the ground near the mats as a trap for borers. Every three days inspect the traps and crush borers hiding beneath
- Chemical control for borers and nematodes is available but highly toxic
- If no tunnels or brown roots are found, the cause might be wind so construct windbreaks to prevent more plants toppling

Toppled banana plant, which can be caused by insects nematodes or high wind. (Photo by Nemapix Archive, Bugwood.org)



Adult banana borer/weevil. Damage is done by the larval stage. (Photo by Jennifer C. Giron Duque, University of Puerto Rico, Bugwood.org)



Scientific name(s) > *Cosmopolites sordidus* , *Helicotylenchus multicinctus*

The recommendations in this factsheet are relevant to: Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago



Authors: George Phillip
Regional Plant Protection Laboratory
email: gphillip86@hotmail.com

Edited by Plantwise.