# Larger grain borer on Maize

*Prostephanus truncatus*

## Prevention

- Before storing new maize, clean and disinfect the storage area, removing and burning all residues
- To eliminate residual infestation, immerse used sacks in boiling water or use new bags to store maize
- Harvest early (when the black layer has formed between the tip of the maize and the cob) before the larger grain borer infests the grain
- When harvesting and storing, check that maize is free of pests, and store only clean cobs
- Shell and dry the maize until it is very dry (less than 12% moisture)
- Store maize with dried lantana or eucalyptus leaves to repel the larger grain borer
- Use airtight, sealed containers
- Do not store grains for a long period. Infestation is usually low if grains are sold or used within three months

## Monitoring

- Monitor weekly the stored produce for damage (e.g. holes in the grains, frass and dust) and adults or larva.
- Infestation at low levels is not obvious, so it is important to sample and carefully examine the grains.
- Inspect holes and cracks where adults can hide.
- Use a box sieve with a mesh of 1 to 2 mm to separate the insects and the grains
- Bags can be emptied in a thin layer onto a sheet in the shade to examine the content
- If any adults or larva are found, the infested produce has to be removed from the storage and destroyed
- Use pheromone traps:
  - Flight traps e.g. funnel, delta or wing traps
  - Place at 100 m away from the storage area or the standing maize crop
  - Position 1 to 2 m from the ground

## Direct Control

- Use natural enemies, e.g. the beetle *Teretriosoma nigrescens*, a specific predator
- Apply an ash-chili mixture to protect maize. Mix 2 kg of wood ash with 1 tablespoon of fine chili powder. Mix 1 part of ash-chili mixture with 4 parts of dried maize grain
- Mix 1 kg of diatomite powder per bag of maize or grain
- Mix finely crushed laterite (common red soil of the arid tropics) with grains in grain stores or sealed clay pots

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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.

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