## Rats and mole rats of sweet potato

*Mastomys, Arvicanthis and Tachyoryctes spp.*

### Prevention

- Plant early-maturing varieties and time harvesting so that harvests occur before maximum rat populations
- Encourage owls to hunt in the field by placing owl nesting boxes nearby
- Before doing this, check with the local community
- Cats are not very effective (they do not necessarily kill rats, just frighten them away)
- Remove weeds within and around sweet potato fields so rats cannot hide from predators
- Place cow dung and pepper in rat burrows to smoke out the rodents
- Pour one-week old fermented cattle urine into burrows to chase away mole rats
- Dig deep ditches around sweet potato plantings to stop rodents from tunnelling straight into the field
- After harvest of sweet potato crops, collect the debris and bury or burn it; importantly, do not leave immature or broken storage roots in the field for rats to eat
- Protect the harvest in storage from rat infestations

### Monitoring

- Additional relevant crops: rice, maize, squash e.g. pumpkin, various root vegetables, stored fruits e.g. apples
- Look out for bite marks in sweet potato and missing chunks. Rats dig through mounds or ridges to eat crops, or attack crop when exposed above ground
- Rat outbreaks tend to occur when there is:
  - A long rainy season that provides more food and cover, allowing better survival
  - A reduction in competition from other rat species, predators and disease, when there is a return to rains after consecutive dry years
  - Early breeding, when unusually heavy rains occur during the rainy season and the offspring join the main breeding season population later in the year
  - Rats live above ground and nest on or in the ground or in trees, depending on the species
  - Mole rats burrow into the soil, eating storage roots from below. They live and breed in underground burrows

### Direct Control

- Set traps (snap, snare or live), although care must be taken to protect livestock and children from being hurt by them

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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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**PLANTWISE DECISION GUIDE: GREEN LIST**

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