

Root nematode management in banana

Recognize the problem

Banana lesion nematodes (“Minyoo fundo” in Swahili) are tiny roundworms that are so small that you cannot see them. They feed inside the banana roots. This causes purplish blackish dead areas on the surface and inside roots but the inner central parts of roots remain whitish and look healthy. The feeding damage disrupts root growth leading to weakened plants and lower yields.

Background

The nematodes feed inside banana roots, but can move through the soil to new roots. These hidden nematodes are difficult to reach with control measures.

Management

At replanting:

- Do not establish banana plantings where bananas have been grown before. It is safe to plant on fields where cassava has been grown for at least the past 2 years.
- In case of replanting onto former banana fields, flood the field for 8 weeks after having destroyed the previous banana crop, then replant.
- Use disease-free suckers from clean nurseries or clean land for planting.
- Kill nematodes in roots of young banana transplants (suckers) with hot water before transplanting: pare suckers from roots and old external plant layers. Then, suckers are placed for 1/2 minute into a bath of boiling water, or for 10 minutes into a bath of hot non-boiling water.
- Coat corms with nematicide products mixed with mud and/or apply nematicides to the planting hole and fill with soil. Be very careful, because nematicides are highly toxic and dangerous to you. You are not allowed to fumigate the field.

For permanent plantations:

- Apply large quantities of mulch around stems to stimulate root growth and to reduce effects of damage by nematodes.
- Densely intercrop with plants that nematodes do not like such as *Tithonia* tree marigold, *Azadirachta* neem trees or *Tagetes* African marigold.
- Spraying granular or liquid chemical nematicide products onto and around banana stem bases is highly toxic, dangerous to you, and not advised.

When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Pratylenchus goodeyi*, *Pratylenchus coffeae*, *Radopholus similis*

The recommendations in this factsheet are relevant to: Kenya, Mozambique, Rwanda, Tanzania, Uganda



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Poor growth and wilting because of root nematodes. (Photo by J. Bridge)



Nematodes caused purplish blackened roots (right), healthy left. (Photo by IITA)

