

## Using natural nematicide plants against banana nematodes

### Recognize the problem

The banana tree is the 4th largest crop in DRC, and it is extremely important to take care of the tree when it is growing. Nematodes are very small worms that cannot be seen by the naked eye. They live in the soil and destroy banana tree roots.

When roots are attacked, the entire plant suffers. They become vulnerable and end up not producing any bananas, or toppling over.

Nematicides in chemical forms exist, but they are extremely expensive, hard to apply, and very unsafe for use as they are toxic to humans and the environment.

### Background

Nematodes live in the soil and enter the roots of banana via holes in the root. They feed and multiply near the roots and cause lesions on the roots that block the nutrient access to the plant.

Nematicidal plants, like vetiver (*Chrysopogon zizanioides*), *Crotalaria* sp., Guinea grass (*Megathyrsus maximus*) or ricin (from the seeds of the castor oil plant, *Ricinus communis*) grow quickly in tropical regions.

The size of the plants are small compared to their leaves. They act by liberating chemical compounds from their leaves into the soil. These compounds keep nematodes away from the banana trees.

### Management

- Identify nematicidal plant that grow in the area and cut some of the leaves from the plant
- Take a handful of cut leaves and place them around the banana trees as mulch early in the morning or late at night
- After their decomposition, the chemicals from the leaves will be liberated into the soil
- Apply 2 months after the planting of the seeds or seedlings, or when you start noticing trees being affected by nematodes

*Crotalaria* is an important nematicidal plant. (Photo by John D. Byrd, Mississippi State University, CC BY)



*Crotalaria* is an important nematicide plant. (Photo by Rebekah D. Wallace, University of Georgia, CC BY-NC)



Scientific name(s) > *Radopholus similis*

The recommendations in this factsheet are relevant to: Democratic Republic of the Congo



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