

# Red Sunhemp against nematodes in tomatoes

## Recognize the problem

Nematodes are small worms which live in the soil and cannot be seen with the naked eye. When they infect the plant, they cause swellings on the roots of host crops, such as tomatoes. This disturbs the uptake of nutrients from the soil through the roots to the rest of the plant. Attacked plants grow slowly, leading to wilting.

## Background

Red Sunhemp (Sanyembe in Nyanja/Tonga, or *Crotalaria juncea* on seed labels) grows all year round. It resembles the weed Zumba (Nyanja), but Zumba has edible dark green leaves whereas red Sunhemp has inedible light green leaves. The roots of Red Sunhemp produce a chemical that keeps nematodes away. Red Sunhemp is much safer and cheaper compared to the often very toxic soil chemicals and also serves as green manure. Its seeds can be obtained from any District Agriculture Office or Kasisi Training Centre.

## Management

- The land on which tomatoes are to be grown should be well cultivated in readiness for sowing Red Sunhemp treatment.
- For every 1 Lima, plant 2 Kg of Red Sunhemp seeds by throwing them into the cultivated field and covering slightly by using a harrow
- When growing, Red Sunhemp produces yellow flowers, which will later form pods generating more seed which are red and yellow. Harvest the seed and store them for future use. It takes 3 - 3 ½ months for the plant to mature. During its growth the roots underneath produce a chemical that sends away nematodes keeping the land clean.
- Then, after harvesting the Red Sunhemp seeds, the plants are removed from the land or integrated into the soil. Later, tomatoes are grown.
- The effects of red sunhemp might be short-term so should be combined with additional nematode management

Root swellings, also called knots caused by nematodes in tomato. (Photo by S. Toepfer)



Red Sunhemp flowers. (Photo by A16898 via Wikimedia commons (CC BY-SA))



Scientific name(s) > *Meloidogyne sp.*

The recommendations in this factsheet are relevant to: Angola, Botswana, Malawi, Tanzania, Zambia, Zimbabwe



Authors: Fridah K Chipambala, Mathews Matimelo  
Ministry of Agriculture and Livestock  
tel: fridahchipambala@yahoo.com email: +260 0977873160

Edited by Plantwise.