

# Termites on cassava

*Coptotermes* spp., *Macrotermes* spp., *Odontotermes* spp.

	Prevention	Monitoring	Direct Control
 <p>Termites are mostly wingless ant-like 3-5mm long insects. (Source: R. Hanus)</p>  <p>Large mound in east Africa (G. Keith Douce, University of Georgia, Bugwood.org)</p>	<ul style="list-style-type: none"> <li>• Avoid planting in termite infested fields if possible</li> <li>• Plough termite mounds prior to sowing to destroy the termite queen and expose the termites to predators (e.g. ants, dragonflies, ground beetles, bats, birds, frogs).</li> <li>• Plant cuttings at a slightly higher rate to account for losses due to termite damage</li> <li>• Deep planting of transplants/cuttings</li> <li>• Remove plant debris around the plant basin/hole before planting since plant debris attracts termites</li> <li>• Apply wood ashes around the plant in the planting basin/ hole to repel termites</li> <li>• Use optimal irrigation and fertilization rates. Ensure development of strong healthy plants that can tolerate some termite damage.</li> <li>• Ensure there is plenty of soil humus for termites to feed on instead of crop - avoid bare, dry disturbed, organic-deficient, residue-free soil</li> <li>• Avoid importing termite infested materials into fields</li> <li>• Plant cassava cuttings on ridges so they are less likely to be attacked by termites</li> <li>• Plant cassava cuttings when rains become steady. Termites prefer a dry environment.</li> <li>• Plant basil (<i>Ocimum</i> spp.) as a barrier to repel termites. Leave space between basil and crop because this native plant may reduce growth/survival of cassava if grown too close.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional relevant crops: maize, yam, rice, sorghum, tomato, peppers, groundnut</li> <li>• Scout for the presence of termites once a week</li> <li>• Monitor the field more frequently (twice a week) during dry spells. Most termite damage occurs during dry periods.</li> <li>• Look for termite nests/mounds in the field and galleries in soil and wood. Termites build nests above and/or below ground depending on the species. Mound structures can vary and be up to 5 m high.</li> <li>• Adults: ant-like, mostly wingless, 0.5-1 cm long</li> <li>• The difference between termites and ants is that termites have straight antenna, broad waist, and if wings are present then forewings and hindwings are of the same size and have many veins</li> <li>• Look for chewed stem cuttings. These grow poorly, die and rot. Termites may even enter the stems, weakening them and causing them to break.</li> <li>• Consider using direct measures if 5-10 plants are affected in 1 field and if the crop is still far from maturing</li> </ul>	<ul style="list-style-type: none"> <li>• Manually destroy termite nest. Find the queen and destroy it (often deep in the nest). Pour boiling water on the nest or burn plant debris to kill the rest.</li> <li>• Burn plant residues on top of a termite mound to suffocate them - this is not a long-term control method as the queen will probably not die</li> <li>• Hand tilling or flooding the termite runways/tunnels will also offer temporary control</li> <li>• Spray crop with extract of neem leaves or neem fruits and apply wood ashes around the plant. Use 1kg crushed neem leaves and/or fruit in 5L water, and 2 handfuls of ash per plant.</li> <li>• Spray crop with extract of <i>Lantana camara</i> (Tusepo) leaves. Boil 2 kg crushed leaves in 5L for 30 minutes.</li> <li>• Use <i>Beauveria bassiana</i> as biological control if available in your country. Bring to boil one teacup of mature seeds for 5 minutes. Allow to cool and then strain to get a clear liquid. Add 1 litre of water.</li> <li>• Harvest as soon as possible. Termite damage gets worse the closer it gets to harvest.</li> <li>• Collect and bury/burn plant debris after harvest</li> </ul>

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.