

Termites on maize

Macrotermes spp., *Odontotermes spp.* Muswa in Nyanja language, Mulanzhi in Tonga language



Termites are mostly wingless ant-like 3-5mm long insects. (Source: R. Hanus)



Falling maize attacked by termites (Source: Photo by NARO QAS for Agriculture)



Sheets of soil on the leaf showing termite attack. (Source: David Nonglait, Pritin Sontakke, D M Firake, G T Behere, www.krishisewa.com)

Prevention	Monitoring	Direct Control	Direct Control	Restrictions
<ul style="list-style-type: none"> Plough termite mounds prior sowing to destroy the termite queen and expose the termites to predators. Sow seeds at a slightly higher rate to compensate for losses of seedlings through termites. Remove plant debris around the plant basin/hole before planting Apply ashes around the plant in the planting basin/hole Ensure development of strong healthy plants that can tolerate some termites. For irrigated crops, maintain regular watering After maturity, cut tassels and lay them in the inter-rows to allow the termites to feed on while the maize matures. Rotate or intercrop maize with leguminous crops like beans. Practice mixed cropping by planting trees into maize field to reduce termite damage. 	<ul style="list-style-type: none"> Scout for the presence of termites once a week Monitor the field more frequently (twice a week) during dry spells. Observe the presence of stems with galleries packed with soils or tunnels made of thin sheets of soil which are built by the termites. Consider using direct measures if 5-10 plants are affected in 1 field and if the crop is still far from maturing. 	<ul style="list-style-type: none"> Physically remove and drop the soil sheets of the termites from the plants during the early stage of infestation Spray with extract of neem leaves or neem fruits on the ground and apply wood ashes around the plant. Use 1kg crushed neem leaves and/or fruit in 5l water, and 2 handful of ash per plant. Spray with extract of <i>Lantana camara</i> (Tusepo) leaves. Boil 2 kg crushed leaves in 5 litre for 30 minutes. 	<ul style="list-style-type: none"> Spray onto the affected area on the ground of the field When using a pesticide (even a botanical home-brew), always wear protective clothing. Follow the instructions on the product label, such as dosage, timing of application, pre-harvest interval, max number of sprays, restricted re-entry interval. Do not empty into drains. WHO class II pesticides might not be allowed in local IPM schemes. Always consult recent list of registered pesticides (ZEMA). Spray extracts from <i>Tephrosia vogelii</i> (Ubuuba in Bemba language) (crush leaves and pods into powder and dissolve in water Spray with Deltamethrin –based products (PALI 250WP; DECIS FORTE; KESHET 2.5EC; and others) onto/into termite constructions. Pyrethroid pesticide group. Usually 0.5 litres product per hectare, which is 10-15ml product per 20 litres, but double-check with product label. Pour Chlorpyrifos –based products onto/ into termite constructions (such as Chlorpyrifos 20EC diluted at 60 ml/18 litre of water, but double-check with product label). Organophosphate pesticide group 	<ul style="list-style-type: none"> Toxic to fish .Not to be used near open water. WHO class II (moderately hazardous); pre-harvest interval (p.h.i.) 7 days; 1 day restricted re-entry interval (r.e.i.) after spray. Follow-up treatment only after 10-14 days. Highly toxic to bees, thus do not apply during ear emergence, or close to flowers. Do not spray near water sources. WHO toxicity class II (moderately hazardous); restricted re-entry interval (r.e.i.) 1 day after spray. Pre-harvest interval 21 d, max 1 spray early in the season. Toxic to bees.

Zambia

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