

# Maize Lethal Necrosis Disease on Maize

Casual agents are *Maize Chlorotic Mottle Virus* and *Sugarcane Mosaic Virus* Local Names: Ukimwi wa Mahindi-Kiswahili, Miguna miguna-Luo, Koroito-Kalenjin

	Prevention	Monitoring	Direct Control	Direct Control	Restrictions
 <p>Chlorotic and mottling mosaics on maize (Miriam Otipa, KALRO)</p>	<ul style="list-style-type: none"> <li>Practice strict crop rotation for at least 2 seasons with non-cereal crops like beans, garlic, onions and vegetables</li> <li>Plant certified seeds</li> <li>Plant maize only during the long season.</li> <li>Avoid continuous planting of maize crop to stop the persistence of virus and possible vectors.</li> <li>Avoid moving plants from infected regions to non-infected regions to reduce spread of disease</li> <li>Plant early with fertilizer and manure to enhance crop nutrition and vigour</li> <li>Keep the field free from weeds which may be alternate hosts to the vectors</li> </ul>	<p>Inspect the field every 3 to 4 days for:</p> <ul style="list-style-type: none"> <li>Chlorotic mottle starting from the base of young leaves.</li> <li>Necrosis of leaf margins progressing to the mid rib leading to drying of the whole leaf</li> <li>Dwarfing and premature aging of plants</li> </ul> <p>Inspect the field for vectors:</p> <ul style="list-style-type: none"> <li>Use yellow sticky traps for beetles and grasshoppers</li> <li>Use blue sticky to trap thrips</li> <li>Examine plants early in the mornings before 11.00 am and after 3.00 pm as thrips tend to hide underneath the leaves in high temperatures</li> </ul> <ul style="list-style-type: none"> <li>Act immediately when symptoms are noticed on one plant</li> </ul>	<ul style="list-style-type: none"> <li>Spray then uproot and destroy plants with typical symptoms. (see direct control yellow)</li> <li>Burn or bury 1m deep</li> <li>Farmers can use the maize stalk to make the silage but should destroy all infected cobs by burning or burying 1m deep to avoid mycotoxin contamination.</li> </ul>	<ul style="list-style-type: none"> <li>Imidacloprid 6-10ml/20L to control maize thrips and leaf hoppers (vectors) e.g Tata Mida 200 SL.</li> <li>Mode of Action: neonicotinoid</li> <li>IRAC code 4A</li> </ul>	<ul style="list-style-type: none"> <li>WHO II (moderately hazardous)</li> </ul>
 <p>Severe necrosis on affected maize (Rose Kamau, MoALF)</p>				<ul style="list-style-type: none"> <li>Lambda-cyhalothrin 65ml/20L water to control maize thrips and leaf hoppers (vectors) e.g Duduthrin 1.7 EC</li> <li>Mode of Action: pyrethroid, quick active contact and stomach action</li> <li>IRAC code 3</li> </ul>	<ul style="list-style-type: none"> <li>WHO II (moderately hazardous)</li> <li>Flammable</li> <li>Apply twice in a planting season</li> </ul>
 <p>Adult thrip (University of California)</p>				<ul style="list-style-type: none"> <li>When using a pesticide 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</li> <li>Always consult recent list of registered pesticides (PCPB)</li> </ul>	

## Kenya

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