







Integrated Management of Phytophthora Root Rot of Avocado

KALRO E-mimea Plant Clinic

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<p><i>Healthy avocado plant.</i></p>	<p><i>Avocado plant affected by phytophthora root rot</i></p>	<p><i>Defoliation of an avocado plant affected by phytophthora root rot</i></p>
		
<p><i>Yellowing of infected avocado plant</i></p>	<p><i>Stem dieback</i></p>	<p><i>Gradual dieback of avocado trees in the orchard</i></p>

Source: Amata R., KALRO

Description

Phytophthora root rot is the most serious disease of avocado. It is caused by a water mold pathogen called *Phytophthora cinnamomi* and affects avocado from seedlings to mature trees. The pathogen infects avocado through roots and survives in plant residues and soil for a long time as resting spores. It has a wide host range including macadamia and it is favoured by waterlogged soils. The disease kills avocado trees gradually leading to losses of up to 100%.

Diagnosis/identification

Symptoms

- Yellowing of leaves
- Dieback of stems starting from the top of the plant
- Death of young tender roots progressing to older roots.

Management Strategy

The following management options are recommended:

Cultural practices

1. Plant using seedlings that are clean and free of the disease/pathogen.
2. Scout 2-3 times a week for initial symptoms and timely control.
3. Practise field hygiene.
4. Avoid planting in wet areas or low lying areas.
5. Ensure the area has good drainage.
6. Plant avocados on raised mounds.
7. Do not over irrigate/avoid waterlogged conditions.
8. High soil organic matter (well decomposed manure). This slows down disease progression.
9. Increase calcium, magnesium and potassium. This creates unfavourable soil conditions that are unfavourable to the pathogen and reduces infections.
10. Burn infected plant residues to reduce the disease inoculum on the field.
11. Weed the orchard or around plants since some weeds serve as alternative hosts.

Chemical management

1. Spray affected plants and also drench soils around the root region with metalaxyl based fungicides e.g. Ridomil Gold MZ 68WG, Agrioxyl 407 SL or Envy 72 WP.
2. Inject Potassium phosphonate to the trunks of affected trees and also apply it to the foliage after every 1-2 years.

Note: Agro-chemicals should be used in consultation with professional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions.

Authors: Amata R., Otipa M., Wasilwa L. and Nyaga A.

Editors: Wasilwa L. and Otipa M.

Disclaimer: The content of this publication is for general information to avocado farmers and technical staff only and no person should act, or fail to act on the basis of the information herein without professional advice from crop health experts. This factsheet was produced by KALRO as part of commercialization of avocado with support of National Agriculture Value Chain Development Project (NAVCDP)

Contacts:

Director General

Kenya Agricultural & Livestock Research Organization, Kaptagat Road, Loresho Nairobi Kenya
P.O. Box 57811, City Square, Nairobi, 00200, Kenya

Email: info@kalro.org

Safaricom: +254 722206986/722206988

Airtel: +254 733-333-223/4/733333299/4

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