REPUBLIC OF KENYA

KALRO
Kenya Agricultural & Livestock Research Organization

NAVCDP
NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT

Avocado Leaf Blight *(Alternaria sp, Pseudocercospora purpurea, Pestalotipsis sp., Dothiorella spp.)*

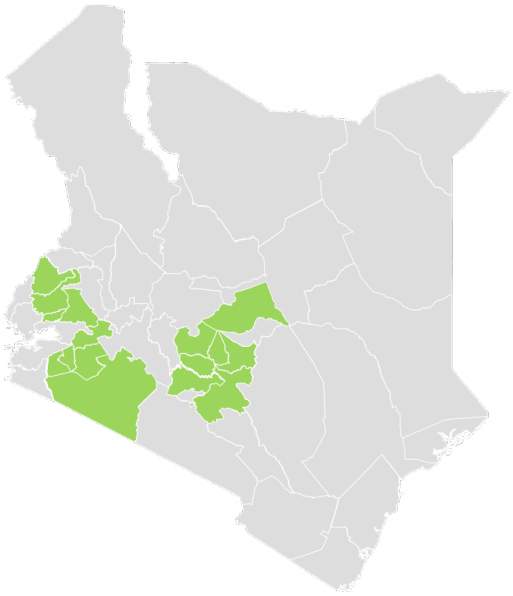
KALRO E-mimea Plant Clinic

KALRO/NAVCDP Factsheet No. 198/2024

Other crops:	Mango, Jackfruit, Macadamia, Pistachio

	
Healthy Avocado leaves *Source: M. Orayo, KALRO*	Avocado leaf blight *Source: R. Amata, KALRO*
Disease Name	Avocado leaf blight (*Alternaria spp., Pseudocercospora purpurea, Pestalotiopsis sp.*)
Description	Several fungi including *Alternaria spp., Pseudocercospora purpurea, Pestalotiopsis sp.* cause avocado leaf blights and spots. The disease affects plants in the tropical and subtropical regions including avocados, mangoes, jackfruit, macadamia, and pistachio. The plant parts affected include leaves, fruits, stems, and branches. The fungi are harbored in infected plant debris which act as reservoirs from which the disease can spread to leaves and fruit. Leaf blight is favored by high humidity and moisture, warm temperatures and poor air circulation. The disease is spread through splash, windy conditions and contaminated tools. The blight reduces the surface area for photosynthesis hence affecting yields.

Diagnosis/Identification	**Symptoms** - *Alternaria* spp. - Small brown spots with a yellow rim on the leaves which enlarge, merge, turn brown and wither. Spots may also be observed on stems and fruit - *Dothiorella* spp.- Begin as small brown spots leading to leaves turning yellow then browning. The spots may also be observed on stems and fruit - *Cercospora purpurea* - Small brown to purple angular- spots appearing on leaves. They may merge (coalesce) and enlarge and they also affect stems and fruits - *Pestalotiopsis sp.* - Reddish/ brownish patches on mature leaves that are irregular in shape. They may begin from the leaf margins inwards. Spots caused by this pathogen may also be observed on stem and fruits
Conditions prevailing that contribute to success	- Moist humid conditions favor infection - Infected plant residues in the field serve as a source of future infections - Reduced air circulation may result in higher incidences - Poor field hygiene maintains infected plant residues that serve as inoculum for subsequent infections in the orchard
Conditions prevailing that contribute to failure	- Un-favourable weather conditions - Higher standards of field hygiene leading to reduced disease inoculum on the farm
Management Strategy	The following management options are recommended: 1. Orchards should be established using clean seedlings free from the disease 2. Observe recommended spacing to reduce congestion and enhance aeration 3. Scout 2-3 times a week for initial symptoms and timely control 4. Control weeds that can act as alternative hosts 5. Prune avocado plants to improve air circulation 6. Practice field sanitation by removing and destroying (e.g. by burying 2 feet deep) infected plant parts and plant debris to reduce disease inoculum on the farm 7. Mulch using organic or synthetic mulch to reduce soil splashing which can spread the pathogens 8. Use drip irrigation to prevent water from splashing onto the leaves which can spread the pathogen 9. Practice hygiene such as sterilization of pruning and harvesting implements 10. Spray affected plants with a copper-based fungicide e.g. Funguran OH 50WP, Agricop 50WP, Champflo SC etc. Ensure proper coverage of the plant during spraying. Strictly adhere to manufacturers recommendations **Note:** *Agrochemicals should be used in consultation with professional practitioners and considering existing cautionary/safety measures, particularly the manufacturer's instructions.*

Mandate Centres	More information can be obtained from: KALRO-NARL Kabete **Email:** cd.narl@kalro.org; info@kalro.org **Address:** P. O. Box 14733-00800, Nairobi HRI KALRO Kandara **Email:** director@hri.org **Address:** P.O. Box 220-01000, Thika **Website:** www.kalro.org
Geographic Coverage	The disease is observed in hot, humid, tropical, and subtropical climates. It was first reported in Florida in 1940.
Geographic Coverage The project counties for avocado are Bomet, Bungoma, Embu, Kakamega, Kiambu, Kericho, Kirinyaga, Kisii, Machakos, Meru, Muranga, Nandi, Narok, Nyamira, Nyeri, Uasin Gishu, and Vihiga Project counties Counties where disease occurs	
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References	https://gardenforindoor.com/brown-spots-on-avocado-leaves/ https://minnetonkaorchards.com/avocado-tree-diseases https://www.gardeningknowhow.com/edible/fruits/avocado/cercospora-spot-in-avocados

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 affiliated to Kenya Agricultural and Livestock Research Organization (KALRO).	This factsheet was produced by KALRO as part of commercialization of avocado with support of National Agriculture Value Chain Development Project (NAVCDP)

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