

# Potential for Transmission of the Fungus Causing Rapid Ōhi'a Death (ROD) to Coffee Crops

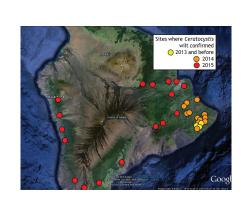
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### WHAT IS IT? Rapid Ōhi'a Death (ROD)

- Rapid Ohia Death (ROD) is caused by the fungus Ceratocystis fimbriata, that attacks the vascular system of the tree resulting in rapid death.
- ROD is spreading fast and now confirmed to be present in all coffee growing districts of Hawaii Island. About 34,000 acres of forest are affected.
- The fungus has other plant hosts such as sweet potato, taro, cacao, mango and eucalyptus these should not be intercropped with coffee.
- The disease is easily transmitted by insects, frass, soil, water, infected cuttings, pruning wounds, tools etc.

# WHY THE CONCERN? Transmission to Coffee

- Coffee tree canker caused by the same fungus is now widespread in Central America and northern South America.
- One of the most serious diseases reducing profitability of coffee plantations in Colombia.
- Untreatable, increasing in severity and incidence.
- Symptoms of trees affected by coffee canker include yellowing of foliage, dieback, wilt and dark lesions under the outer surface of the bark.
- Mechanical injuries, especially wounds from pruning and worker shoes are the main modes of ingress for coffee canker



Locations on Hawaii
Island where ROD has
been confirmed.
Map produced by
University of Hawaii
College of Tropical
Agriculture and Human
Resources.

Wilting coffee trees in Costa Rica with infections at the base, probably originating from the soil.



Lesions extend the downward toward the roots, girdling the trunk and causing tree death.
Similar lesions are seen in ROD.

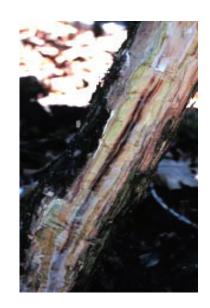


Photo source: Iowa State University http://www.public.iastate.edu/~tcharrin/FimbDis.html

## **OUR RECOMMENDATIONS**

#### **FARM PRECAUTIONS**

- ASSUME all soil, tools, shoes, tires and other items from off-farm areas are contaminated.
- PRUNING TOOLS are highest risk.
- **SEEDLINGS** should be grown on-site or by suppliers growing in certified nursery conditions.
- **EXCLUDE** all livestock from ohia areas from coffee farms.
- WATCH for diseased plants, isolate them, test for fungus and report infections immediately.

#### **DECONTAMINATION METHODS**

- REMOVE surface mud, leaves etc.
- THEN DECON surfaces by spraying with a <u>freshly</u> made 10% solution of household bleach in water.
- NO RUBBING ALCOHOL (Isopropanol (70% not 90%) may also be used but we do not recommend it.
- Isopropanol is expensive, not organic and its high evaporation rate in warm air may not allow enough contact time to kill spores.
- WASH CLOTHES in hot detergent water.