

WHAT YOU CAN DO TO PROTECT YOUR 'ŌHI'A

Do not injure or wound 'ōhi'a trees. Keep weed wackers, lawnmowers, and other equipment away from 'ōhi'a trunks.



To prevent spreading the disease, keep wood on site. Do not take 'ōhi'a wood, branches, or parts to the Hawai'i County green-waste station. We are researching alternatives to safely dispose of, or treat diseased wood. Updates will be posted on rapidohiadeath.org.



A mulch bed around 'ōhi'a trees keeps them from being injured by lawnmowers or weed wackers.

5 THINGS YOU CAN DO



1 DON'T MOVE 'ŌHI'A

Do not move 'ōhi'a wood, firewood, or posts, especially from an area known to have ROD. If you don't know where the wood is from, don't move it.

2 DON'T TRANSPORT 'ŌHI'A INTER-ISLAND

Comply with the new quarantine rule to help prevent ROD from spreading. Don't move 'ōhi'a plants, whole or parts, 'ōhi'a wood, or soil from Hawai'i island without a permit.

3 AVOID INJURING 'ŌHI'A

Wounds serve as entry points for the fungus and increase the odds that the tree will become infected and die from ROD. Avoid pruning and contact with heavy equipment wherever possible.

4 CLEAN YOUR GEAR/TOOLS

If you must work around or cut 'ōhi'a, clean tools and gear before and after use, especially when used on infected 'ōhi'a. Brush all soil off of tools and gear, then spray with 70% rubbing alcohol. Shoes and clothes should also be cleaned before and after entering forests. Wash clothes with hot water and soap.

5 WASH YOUR VEHICLE

Wash the tires and undercarriage of your vehicle with detergent and remove all soil or mud, especially after traveling from an area with ROD and/or if you have traveled off-road.



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FOR THE LATEST INFORMATION, MAPS, AND UPDATES ON RAPID 'ŌHI'A DEATH PLEASE VISIT:

www.rapidohiadeath.org
www.facebook.com/rapidohiadeath

IF YOU SUSPECT ROD IN YOUR AREA PLEASE CONTACT:

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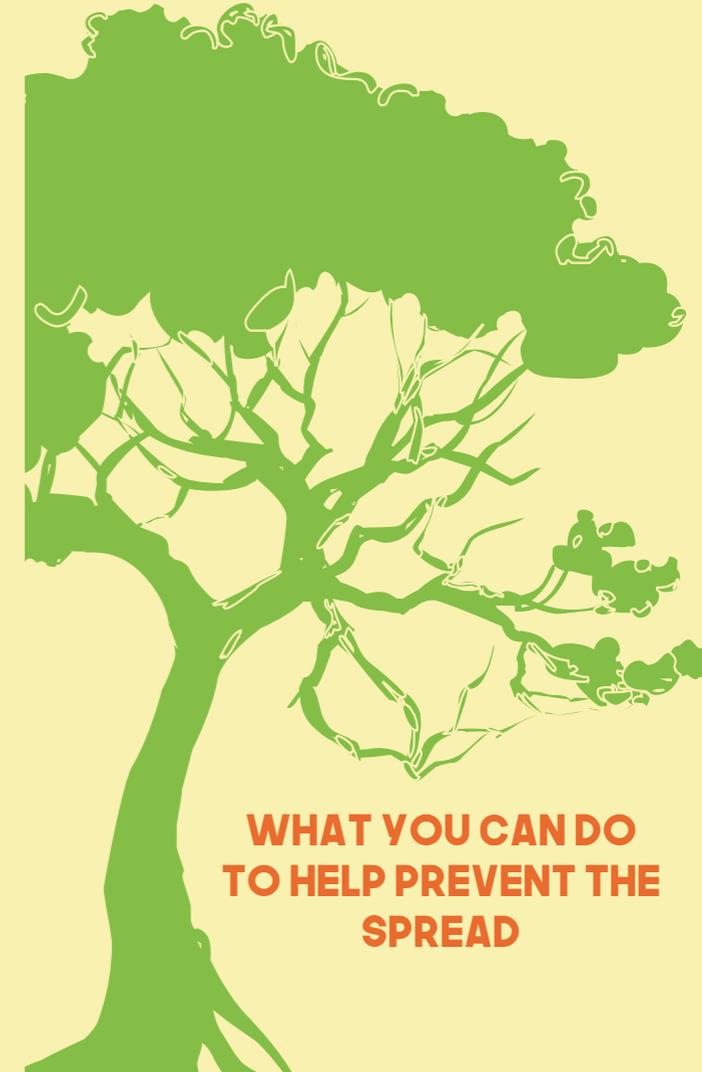
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RAPID 'ŌHI'A DEATH



WHAT YOU CAN DO TO HELP PREVENT THE SPREAD

Artwork by Laurie Sutinje

A NEWLY IDENTIFIED DISEASE

'Ōhi'a lehua is the backbone of Hawai'i's native forests and watersheds which are our source of fresh water in these islands. 'Ōhi'a trees cover more than 1 million acres statewide—they are the most important tree in Hawai'i. A disease that is new to science and new to Hawai'i has killed hundreds of thousands of 'ōhi'a trees (*Metrosideros polymorpha*) across more than 50,000 acres on Hawai'i Island. Known as Rapid 'Ōhi'a Death (ROD), the disease is caused by the fungus *Ceratocystis*.

In 2016 researchers found that there are two new species of *Ceratocystis* causing ROD. Both species will be formally described and named, and DNA work is underway to understand where they came from. From a management standpoint, both diseases infect and kill 'ōhi'a, thus they both cause ROD.

This disease has the potential to kill 'ōhi'a trees statewide. The most important thing we can all do is help minimize the spread of ROD, and protect 'ōhi'a for the future.



Symptoms of the Disease

- Limbs or entire crowns of 'ōhi'a trees turn yellowish or brown within days to weeks; dead leaves remain on branches for some time.
- The fungus shows up as dark streaking or staining in the sapwood, and may smell fruit-like. These symptoms are not apparent unless the tree is cut in the area of the trunk where the fungus is present.
- To confirm ROD in a tree, a wood sample must be tested. For Hawai'i Island residents, check out our sampling video or contact us for help with sampling at rapidohiadeath.org. For help assessing 'ōhi'a trees or taking samples on all other islands, contact your local Invasive Species Committee or Watershed Partnership.



Fungal fruiting bodies (image magnified)



Radial staining of sapwood.

NEW QUARANTINE RULE

Because this disease could have devastating impacts on Hawai'i's 'ōhi'a forests, and people could accidentally spread it, the Hawai'i Department of Agriculture (HDOA) passed a new quarantine rule that restricts the transport of *Metrosideros* (all species, including 'ōhi'a), including 'ōhi'a plants, plant parts, unfinished 'ōhi'a wood and wood products, mulch, wood chips, and sawdust, and soil from Hawai'i island, except by permit from the HDOA Plant Quarantine Branch.

Testing and quarantine of some items may be required. Shippers may contact the Plant Quarantine offices:

HILO: 808-961-9393
KONA: 808-326-1077



A tree may be infected for months or longer before it becomes apparent.

IF YOUR 'ŌHI'A HAS ROD

Contact your local DLNR office, Invasive Species Committee, or Watershed Partnership for assistance, or contact us through rapidohiadeath.org if you live on another island and suspect ROD.



Work with a certified arborist to cut an infected tree cut down, if possible. Standing dead 'ōhi'a attract boring beetles that may play a role in spreading ROD. Once on the ground, the tree may be cut up and burned safely in a fireplace, imu, or barbecue pit, or at least stacked, and covered with a tarp or weed mat to reduce beetle activity. Remember to decontaminate all equipment and clothing after disposing of trees and material.



Infected 'ōhi'a logs (left); 'ōhi'a logs properly secured under tarp (right).

FOR MORE INFORMATION VISIT:
rapidohiadeath.org