

WHAT YOU CAN DO TO PROTECT YOUR 'ŌHI'A

Do not wound 'ōhi'a trees. ROD-causing fungi enter through breaks in the tree bark. Keep weed-whackers, lawn mowers, and other equipment away from 'ōhi'a trunks and roots. Protect trees from hooved-animal damage. When hiking, avoid stepping on tree roots.



Please prevent spreading disease by keeping wood on site. Do not take 'ōhi'a wood, branches, or parts to transfer or green-waste stations.



A mulch bed or other weed barrier around 'ōhi'a trees keeps them from being injured by lawnmowers or weed-whackers.

5 THINGS YOU CAN DO

1 AVOID INJURING 'ŌHI'A

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

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 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 and keep it out of the greenwaste.

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.



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

www.rapidohiadeath.org

www.facebook.com/rapidohiadeath

www.instagram.com/rapidohialife

IF YOU SUSPECT ROD IN YOUR AREA PLEASE CONTACT:

Rapid 'Ōhi'a Death Outreach Team

University of Hawai'i

Cooperative Extension Service

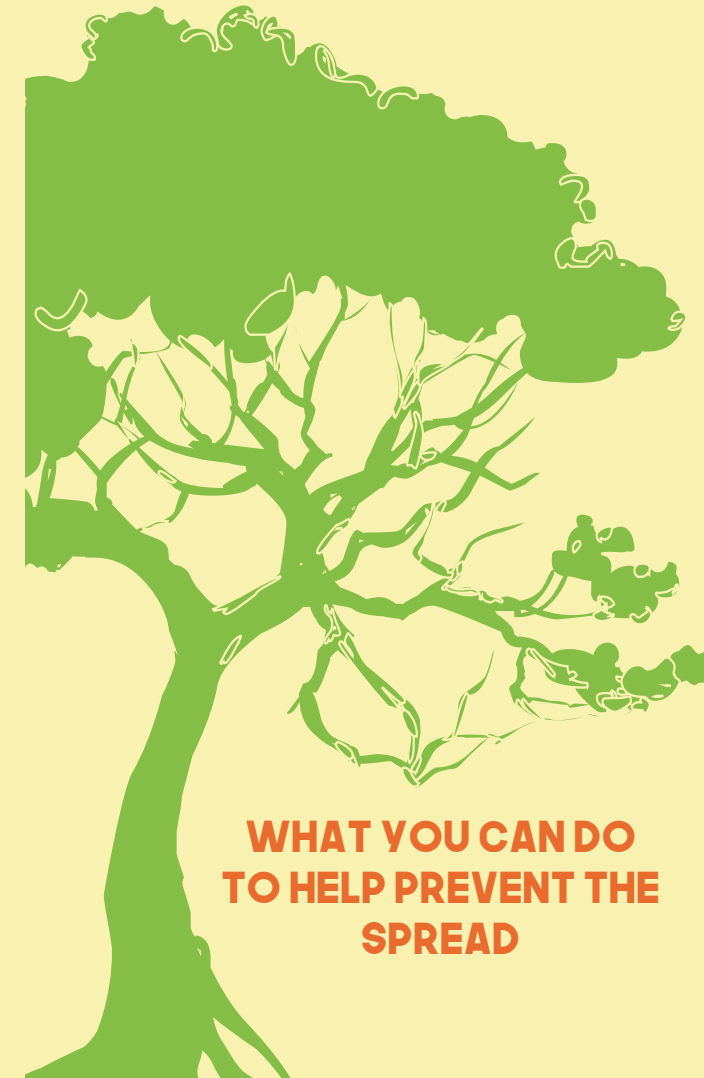
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INVASIVE SPECIES COMMITTEES OF HAWAII (PROJECTS OF PCSU UH MĀNOA)

RAPID 'ŌHI'A DEATH



WHAT YOU CAN DO TO HELP PREVENT THE SPREAD

Artwork by Laurie Sutinje

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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 (*Metrosideros polymorpha*) cover nearly 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 across Hawai'i Island. Commonly known as Rapid 'Ōhi'a Death (ROD), the disease is caused by the fungus *Ceratocystis*.

Two newly identified fungal species cause ROD: *Ceratocystis lukuohia*, destroyer of 'ōhi'a, and *Ceratocystis huliohia*, disrupter of 'ōhi'a. From a management standpoint, both diseases infect and kill 'ōhi'a, and so both cause ROD.

This disease has the potential to kill 'ōhi'a trees statewide. ROD was detected on the island of Kaua'i in 2018. The most important thing we can all do is help minimize the spread of ROD and protect 'ōhi'a for the future.



Patchy distribution of ROD infected trees on Hawai'i Island.



IF YOUR 'ŌHI'A HAS ROD

Work with your local Invasive Species Committee if you live on Maui, Moloka'i, O'ahu or Kaua'i, and suspect ROD. Contact us at the email or phone number listed on this brochure if you have questions.



Fine insect boring dust on ROD-infected 'ōhi'a.

ON THE ISLAND OF HAWAII WHEN TO CUT: If the infected tree is in an otherwise healthy forest and you see a lot of insect boring dust, work with a certified arborist to fell the tree. Be careful not to wound other 'ōhi'a and use minimal cuts. Ensure all equipment is properly sanitized. Keep the wood on site and well-covered with a tarp until it can be burned. Burning can be done safely in an imu, fireplace, smokehouse, or barbecue. **WHEN TO MONITOR:** You may choose to monitor the area if felling an infected 'ōhi'a tree will wound nearby healthy trees, if you see little to no insect boring dust, or if the tree is in a large infected area.



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

Symptoms of the Disease

- Limbs or entire crowns of 'ōhi'a trees turn yellow or brown within days to weeks; dead leaves remain on branches for some time.
- The fungi 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 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.



Fungal staining of sapwood.

A tree may be infected for months or longer before it shows symptoms.

'ŌHI'A QUARANTINE RULE

Since ROD 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 quarantine rule that restricts the transport of *Metrosideros* (all species, including 'ōhi'a), from ROD-infected islands, except by permit from HDOA Plant Quarantine Branch.

'Ōhi'a items that are prohibited from moving off of Hawai'i Island:

- 'Ōhi'a plants
- 'Ōhi'a Mulch
- 'Ōhi'a plant parts
- 'Ōhi'a Wood chips and sawdust
- Unfinished 'ōhi'a wood and wood products
- Soil

To apply for permits to move 'ōhi'a products that can be demonstrated to be free of ROD, please visit: HDOA.HAWAII.GOV



FOR MORE INFORMATION VISIT:
RapidOhiaDeath.org