

## **PEST PREVENTION TRAINING**

An advanced education program for those on the front lines protecting Hawai'i

## **Rapid Ohia Death**

Ceratocystis lukuohia, C. huliohia

#### Report if seen. Present in limited areas on Kauai, Oahu, and Hawaii Island.

The disease, Rapid Ohia Death, is caused by aggressive fungal pathogens, *Ceratocystis lukuohia* and *Ceratocystis huliohia*. While both will kill the native ohia tree (*Metrosideros polymorpha*), C. lukuohia is more aggressive.





Rapid ohia death has killed hundreds of thousands of ohia tres across Hawaii Island



Ohia trees infected with rapid ohia death will turn brown within weeks. Leaves stay in place as though frozen.



#### Impacts

- Only known to infect ohia (Metrosideros polymorpha).
- There are 350 million ohia trees in Hawaii, and over 1 million have been killed by the disease.
- Both strains of the fungus kill ohia, though *C. lukuohia* is faster.
- Ohia is the keystone tree of the native forest in Hawaii.

### Identification

- Rapid browning of the leaves of ohia and subsequent death could indicate the presence of the disease.
- Sapwood has dark vertical stains.
- Definitive confirmation requires laboratory testing.



Learn plantpono.org/pest-prevention-training/





# **Rapid Ohia Death**

Ceratocystis lukuohia, C. huliohia Report if seen. Present in limited areas on Kauai, Oahu, and Hawaii Island.



## Vectors/Commodities

- The fungal pathogens can be moved long distances in infected ohia logs or plants as well as in soil carried from infected areas.
- The pathogens enter ohia through wounds in the bark and roots.



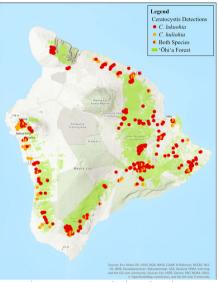
### Distribution

• The pathogens arrived in Hawaii from elsewhere. First detected on Hawaii Island, the disease has been detected in trees on Kauai, Oahu, and Maui although county-based containment efforts have contributed to preventing widespread establishment.



### **Best Managment Practices**

- This species is not widespread throughout the state. Prevention and early detection are key to containment and eradication efforts.
- Follow the Hawaii State Quarantine rule and don't move ohia off Hawaii Island.
- Clean gear, boots, and vehicles before and after entering forests.
- To prevent the introduction of other similar pathogens, follow the Hawaii Department of Agriculture's ban on importing plants in the myrtle family. Report any suspect symptoms of the disease to 643pest.org or by phone 643-PEST (7378).



Distribution on rapid ohia death on Hawaii Island as of June 2020.Find distribution for other islands at rapidohiadeath.org



Rapid ohia death only affects ohia trees. Ohia are the keystone species in the Hawaiian rainforest.



#### Selected References:

Rapid Ohia Death Website, University of Hawaii. rapidohiadeath.org

This material was made possible, in part, by a Cooperative Agreement from the United States Department of Agriculture's Animal and Plant Health Inspection Service (APHIS). Itmay not necessarily express APHIS's views.



Learn

plantpono.org/pest-prevention-training/



