

Plans in the pipeline to protect ohia

KIA'I MOKU

By Lissa Strohecker



It starts with a spot, a tiny dot of orange on a leaf bound for Hawaii. It could be on cut foliage destined for a florist or on a tree fated for a Hawaii yard. The miniscule speck of orange grows, produces spores and covers the plant. Hawaii's moist climate creates the perfect habitat for the little orange organism, a type of fungus known as a rust that attacks plants - often fatally. The trade winds spread the rust spores to more hosts, and within months trees across Hawaii have turned brown, lost their leaves, and begun to die.

In 2005, the rust attacked an invasive tree in the myrtle family - rose apple, but the rust grows on many myrtaceae species, including ohia. The Hawaii Department of Agriculture identified the rust as *Puccinia psidii* and named it "ohia rust" in recognition of its impact on ohia. If a new strain of the rust arrives, there is a very real chance that it will attack Rust ohia and cause the same level of damage as it did to rose apple. This could be devastating: Ohia makes up 80 percent of our native rain forest and is the keystone species in the watershed. In an effort to protect ohia and our rain forest - the source of our water - the Hawaii

Department of Agriculture is proposing a ban on the import of plants that could carry a new variety of the rust.

In 2008, the department implemented an interim rule, a temporary ban on the import of ohia, but it was only active for one year. This new rule will protect ohia as well as other, commercially important myrtle species, such as eucalyptus and ornamental trees.

Ohia covers nearly 1 million acres in Hawaii, provides food for iiwi, apapane, akohekohe and other rare birds; shelter for their nests; and habitat for native insects, snails and other species.

Like a flu or a cold, there are different strains of rust. The strain of ohia rust currently in Hawaii does kill ohia seedlings, but very few. However, the impact could be much higher. To evaluate the rust's threat, Hawaiian ohia seedlings were grown in Brazil, the home range of the fungus. Researchers exposed the seedlings to various strains of the rust, some of which proved deadly. These tests showed that a new rust strain is a potent threat to the Hawaiian forests and watersheds.

The ban will stop the import of plants and foliage of myrtle family that hitchhike into Hawaii from out-of-state or international sources. This material is commonly used in flower arrangements, but after the interim ban, many florists quit using eucalyptus



Above: *Puccinia psidii* or "ohia rust" is found on the leaves of an ohia tree. ROB ANDERSON photo

Below: If a new strain of this fungus rust arrives in Hawaii it could devastate ohia forests. Orange rust fungus covers the leaves of a rose apple tree. FOREST & KIM STARR photo



florists who use locally grown flowers and foliage, or use locally grown flowers and foliage yourself. By making this choice, you are helping to protect ohia and our forests. To learn more, go online to www.hear.org/species/puccinia_psidii/.

as cut greens in flower arrangements. Local sources of eucalyptus can still be used, and in doing so, local jobs are protected along with ohia. If growers want to import a myrtle species into Hawaii, they can do so after obtaining a permit and agreeing to quarantine the plant for one year.

Before the ban goes into effect, the Agriculture Department will hold public hearings throughout the state. Buy local. Support

■ *Lissa Strohecker is the public relations and education specialist for the Maui Invasive Species Committee. "Kia'i Moku," (Guarding the Island) is prepared by the Maui Invasive Species Committee to provide information on protecting the island from invasive plants and animals that can threaten the island's environment, economy and quality of life. For more information visit www.mauisc.org*