

Parkinsonia, other invaders thorns in our island's side

Kia'i Moku

By Lissa Fox



An unusual shrub caught the eye of former state forester Bob Hobby as

he was driving down the Honoapiilani highway some years ago. He stopped for a closer look at the six-foot tall kiawe-like tree and took special notice of the inch-long pairs of thorns that lined the green stems of the plant. He had never seen a plant like this on Maui and identified the plant as *Parkinsonia aculeata*. Bob shared this new discovery with members of the Maui Invasive Species Committee.

While every rose may have its thorn, only a handful of native Hawaiian plants have thorns and they tend to lose them as they mature. Evolving in an environment without large grazing animals, native plants did not waste energy producing unnecessary thorns for defense.

Now grazing animals are common on Maui and so too are several thorny species. Kiawe lines our beaches, turning a barefoot walk into an extreme sport, and the invasive Himalayan blackberry scratches hikers and hunters in Polipoli. Recognizing Parkinsonia as a potentially devastating plant, MISC decided to act early to prevent this prickly alien from invading Maui.

Parkinsonia is a plant with a well-deserved nasty reputation. It is regarded as one of Australia's worst weeds. Already out of the box in Australia, Parkinsonia infests over 800,000 hectares, an area four times as large as Maui! A mature plant produces between 5,000 and 13,000 seeds a year. The floating seed pods can be carried long distances and deposited downstream. Parkinsonia eventually chokes streams, fills floodplains, and displaces native vegetation. In Australian pastures the plant

quickly forms impenetrable thickets, preventing cattle from accessing water. Parkinsonia is not a plant that cattle will graze so infestations quickly take over pastureland. It is very drought tolerant and would thrive on Maui in the same areas that kiawe currently does.

Native to Mexico and the southwestern United States, Parkinsonia is highly adapted to desert environments. The tree grows along dry gulches and stream washes, receiving water only a few times a year. After a rain, Parkinsonia will be covered in showy orchid-like yellow and orange flowers. The green seed pods are 2-8" long. During the dry season, the feathery leaves fall off and the green stems do the work of producing food for the plant. Pairs of sharp thorns zigzag along the stem, protecting the plant from grazing antelope, sheep, and wild horses.

Parkinsonia is often planted as an ornamental because it is so hardy, but it has escaped cultivation in California, Florida, the West Indies, and Guam among other places. On Maui, Parkinsonia has only been found in three locations and all known plants have been removed.

Controlling an invasion of Parkinsonia can be very expensive after the population is established. The most effective control method for large plants is blade plowing with heavy machinery but labor-intensive follow up is necessary to remove any seedlings. To date there are no effective biocontrols available. In Australia some ranchers are experimenting with using camels to help control infestations of Parkinsonia. However, camels still prefer native species over the prickly Parkinsonia so it's unlikely you will see a camel in Kahului in the near future.



Seen here are Parkinsonia's tree, flower and the zigzag pattern of the thorns on the characteristic green stem.. (Photos by Phillip Thomas)



Help keep Maui free from one more prickly plant pest. The best control for invasive species is prevention, followed by eradication before the species becomes widespread. If you think you may have a Parkinsonia plant in your yard, please call the Maui Invasive Species Committee at 573-MISC (6472).

Lissa Fox is the public relations and education specialist representing the Maui Invasive Species Committee, or MISC. "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.