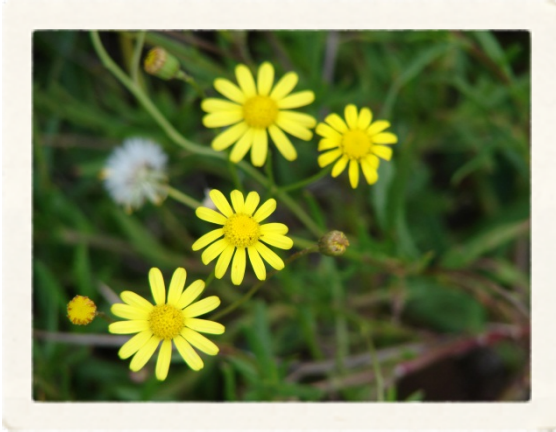




University of Hawai'i Master Gardener Program

Fireweed (*Senecio madagascariensis*) Biological Control Release Program in Maui County

Lorraine Brooks, Maui Master Gardener Coordinator



Fireweed , Photo: Forest & Kim Starr

Maui Master Gardeners Lance Mohler, Susan Beall, Laura McLean, Frank Kane, and BK Griesemer are participating in a fireweed biological control release program in Maui County. The project is being led by Dr. James Leary, CTAHR Invasive Species Specialist in collaboration with Hawaii Department of Agriculture (HDOA), Maui Invasive Species Committee (MISC), Maui Cattlemen's Association, and Tri-Isle RC&D Inc.

Fireweed, *Senecio madagascariensis*, is a member of the Asteraceae and is native to Madagascar and South Africa. It produces a pyrrolizidine alkaloid, which is toxic to livestock. It can be found in pastures and disturbed areas. Fireweed has

invaded approximately a half-million acres of productive pasture on Maui and the Big Island. Between 2010 and 2012, Maui County sponsored the Fireweed Management Prescription (FMP) Program which included the application of \$150,000 in herbicides to 5000 acres of pastureland on Maui. While the Program was successful, herbicide treatments are expensive and provide only temporary control. Local ranchers are seeking alternative management strategies.



A moth, *Secusio extensa*, was introduced from southeastern Madagascar into containment facilities in Hawaii to be evaluated as a biological control for fireweed. The moth has been shown to be host-specific to the Asteraceae tribe Senecioneae and may be introduced for biological control.

The Maui Master Gardeners will raise the *Secusio* along with fireweed plants in insect rearing cages. One of the objectives of the project is to determine how many caterpillars can complete their lifecycle in the cage. Sixty flats of fireweed were planted on February 8, 2013 at the Maui Agricultural Research Center. There has been some discussion about having the Master Gardeners rear the moth at their homes to see how they thrive at different elevations and microclimates on Maui. Eventually, the moth will be released into pastures on Maui once there is a sufficient population.



Insect rearing cage