

Healthy & Productive Forests Initiative Research Trial for the Control of Strawberry Guava

After two years of research and planning by the Healthy & Productive Forests (H&PF) Committee, CN Renewable Resources, a Honua Ola Bioenergy sister company, awarded HFIA \$25,000 to initiate research trials for the control of Strawberry Guava (*Psidium Cattleium*), also known as Waiawi. Taking on Strawberry Guava with biocontrol (introducing the Brazilian Scale *Tectococcus Ovatus*) appears to be the best opportunity for initiating the effort. When applied, the insects gall the leaves of the S. guava and substantially reduces its vigor by about 80%.

A test helicopter drop was conducted on March 15th at Rick Rego's property in Glenwood on Hawai'i Island. "The goal was to land the gall infested leaves in a way that they would stick in the crowns of the S. guava and in reasonable distance from the helicopter line of flight", said HFIA President and H&PF Committee Chair Don Bryan. "The biggest outcome of the day is that we demonstrated that it is feasible to land live *Tectococcus Ovatus* insects for biocontrol in the crowns of the S. guava. There were two configurations out of five that met this goal". The crew was able to get some clear video and solid observations while flying. "We'll know more when the ground data and drone footage is processed".

Volunteers from the University of Hawai'i, Big Island Invasive Species Committee, and DLNR Division of Forestry & Wildlife tracked the helicopter drop with drones and on the ground to tally the results. Fourteen people attended the event, including the volunteers and representatives of US Forest Service, CN Renewable Resources, HFIA, HFI, and other interested individuals. HFIA provided a barbeque lunch for the attendees.

According to the US Forest Service, S. guava has invaded ~600,000 acres of agriculture, conservation, and potential commercial forest and recreation land on Hawai'i Island. Over 1.1 million acres statewide, a quarter of the entire state is suffering from this unmanaged S. guava invasion. Much of this land is inaccessible making aerial distribution the most practical method of distributing the biocontrol. HFIA will also be conducting physical removal trials of S. guava using heavy equipment.

The objectives of the Healthy & Productive Forests Initiative are to:

- Develop and demonstrate operational scale methods for rehabilitating forests threatened by invasive species;
- Disseminate information on cost and lost opportunities presented by weed-infested forests;
- Disseminate efficient, effective techniques and forest management methodologies to forest landowners and encourage immediate action; and
- Promote the return of sizable portions of Hawaii's forests to fulfilling the purposes intended by the legislature.

Links: [Healthy & Productive Forests Plan](#) [Healthy & Productive Forest webpage](#)



▲ March 15th helicopter test drop. Photos: Franny Brewer, Big Island Invasive Species Committee.