



Division of Urban Forestry Horticulture Services/Honolulu Botanical Gardens FY26 Climate Change Budget Initiative (Invasive Species Control)

Why Climate Change?

Climate change is impacting urban forestry programs due to:

- Accelerated tree growth, increased flowering cycles
- Invasive species control
- Rising wildfire threats

\$3,261,800 in funding was allotted to holistically address all 3 impacts.

\$470,200 total was earmarked specifically for *Invasive Species Control*

- \$270,200 Treatment of iconic trees/palms in specialty areas
- \$200,000 Invasive tree removal services (ex Albizia)

Horticulture Services Branch Urban Core Target Strategy

(Kaka'ako Waterfront, Ala Moana Park, Kewalo & Various Parks)

- “Systemic” chemicals injected into the vascular system and circulate throughout the tree/palm.
- Used to address the coconut rhinoceros beetle in palms and lobate lac scale, stem & leaf gall wasp in banyan species.
- Several injection systems and trade-name chemicals are used and tested. All are formulas of active ingredient *imidacloprid*.
- Some chemicals provided by the Hawai'i State Department of Agriculture.
- Since June 2025, 785 palms and 80 banyans have been treated.

Projecting Forward:

- **Continue treatments in the urban core target range through FY27**
- **4-month cycles projected as we continue to test/evaluate chemicals and delivery systems**

Palm Crown Treatments (Contact Insecticide) Royal Palm Drive Exceptional Palms

- Contact insecticide applied to palm crown at apical meristem and frond basal areas.
- Multi-action pyrethroid concentrate kills on contact, insect growth regulator prevents maturing to breeding stage, and a synergist enhances pyrethrin and helps overcome insecticide resistance.



98 Palms:

- 5 treatment cycles starting January 2024 through August 2025.
- Numbers treated vary due to flowering times/electrical line access.
- 87 palms received injection treatments in August 2025 to supplement contact spray treatments.

Honolulu Botanical Gardens Branch

Integrated Pest Management & Best Management Practices

- Large, diverse palm collection; 1,453 accessions, 523 unique taxa; many inaccessible to equipment.
- Concern raised regarding decay at injection sites (ex., native loulu species).
- Applying granular and/or water-soluble drench imidacloprid products with a focus on native loulu and the rarest species.
- Began December 2024, treating approx. 1,348 palms 3x per year. Labor is the limiting factor as well as the application threshold on the amount of chemical allowed per acre.
- Investigating drone application of crown spray application. Focus will be on Ho'omaluhia and Wahiawā.
- Testing injections on species with high numbers/lower value.
- Collecting data on species most/least impacted.
- Current loss = 100 palms.