



# There's a Whole Lot of Saving Needed Before You Can Save Seeds

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# SDG 2 Zero Hunger

- End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- For more info on the Sustainable Development Goals see: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>



## Target 2.5

- *By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.*



## Indicator 2.5.1.a

- **Number of plant genetic resources for food and agriculture secured in medium or long term conservation facilities**
  - The conservation of plant genetic resources for food and agriculture in medium or long term conservation facilities (ex situ in gene banks) represents the most trusted means of conserving genetic resources worldwide. This indicator will measure progress towards target 2.5.



# FAO Key Results

- *Progress in securing crop diversity continues to be modest, particularly for the associated wild species which either are missing in gene bank collections or have their intraspecific diversity poorly represented.*



# Why We Don't Do Cultivated Seeds and Trees

But we do send a few dollars to these folks who do damn good work with cultivated seeds and wild trees.

- **Indigenous Seed Keepers Network,**  
<https://nativefoodalliance.org/get-involved/>
- Native Seeds/SEARCH,  
<https://support.nativeseeds.org/give/234090/#!/donation/checkout>
- Auwahi Forest Restoration Project,  
<https://www.auwahi.org/how-to-give-a-tax-deductible-donation>



# Why Only Modest Progress or Why We Do Wild Seeds?

- For many native plants the natural diversity of wild populations has been depleted.
- Habitat loss due to urbanization; industrial agriculture; and other competing uses has reduced the range and sheer number of plants.
- Loss of pollinators and seed dispersers.
- Moreover, for wild plants with commercial value as food or medicine, unsustainable foraging practices can reduce the number of plants with desirable characteristics leading to genetic degradation.



## A Case Study, Kū Ka Maile: Ethnobotany, Harvest Effects, and Recruitment of Maile A Hawaiian Climbing Vine

- Maile *lei* (garlands), made by stripping the bark and leaves from young stems, were traditionally used by all sectors of society. Today maile continues to be one of the most heavily wild gathered native plants in the Hawaiian Islands, and maile *lei* are commonly used for cultural practice, weddings, graduations, and proms. Maile have large seeds (7-14 mm in length) that are no longer being dispersed, as large native frugivores are extinct and introduced birds do not successfully disperse seeds larger than 6 mm in length. In addition, maile fruit are attractive and vulnerable to predation by invasive rodents and gamebirds. ***Amber Nāmaka Whitehead***






# It's Complicated

- As you can see from Dr. Whitehead's dissertation, ensuring we have seeds worth saving involves a complex web of inter-related activities, laws, policies, practices, and institutions involving inter-related partnerships and collaboration between and among, for example, cultural practitioners, land and resource managers, nurseries, educational institutions, plant breeders, and NGOs.
- But just who the heck are these people?



# So Let's Keep It Simple

- Who? Just about any entity that owns or manages land.
- Where? Just about anywhere but the closer to home the better.
- What? Plant, malama, support financially.
- How? See last slide.



# A Very Short To-Do or Have-Done List

- Dig up your lawn and plant a garden.
- Cross Compliance/Ag Leases.
- DoD INRMP and ICRMP.
- FS and BLM land management plans.
- Join a halau.
- DOE Site-Specific Advisory Boards and DoD Restoration Advisory Boards.
- State and local roads and highways agencies.
- Write a journal article.
- Roundtable on the role of traditional healers in preserving biodiversity.
- Roundtable on the role of native chefs and indigenous gastronomy in preserving biodiversity.



# Full Disclosure: Why We REALLY Do Wild Seeds or Why “How” Is the Most Important Question

- Reifies the welcomed but increasingly *pro forma* land acknowledgements.
- Irredentism. Relatedly, our foods, our medicines, the plants we use for fiber, for ceremony, and for other cultural purposes imprint the places where they grow and cared for as OUR places.
- Nation-building. If we're simply a strand in the complex web of inter-related activities, laws, policies, practices, and institutions involving inter-related partnerships and collaboration between and among, for example, cultural practitioners, land and resource managers, nurseries, educational institutions, plant breeders, and NGOs we do good things. But if we're the weaver, then we're nation-building.