

# Agenda for O‘ahu on March 24th -25th, 2012

Hawai‘i Public Seed Initiative “Hua Ka Hua” - Restore Our Seed Project 2011-2013

## Seed Saving & Seed Production Basics For Farmers & Gardeners

### Agenda Day 1: Lyon Arboretum

**9:00 - 10:00 a.m.** Registration & Coffee

**10:00 - 10:10 a.m.** Welcome by *Ray Uchida, CTAHR County Of O‘ahu Extension Administrator*

**10:10 - 10:50 a.m.** The Hawai‘i Public Seed Initiative by *Nancy Redfeather – Coordinator HPSI*

- Where Have We Been and Where Are We Going?
- Public Seed Commons: A Brief History of the Seed Industry.

**10:50 – 11:15 a.m.** Global Seed Industry by *Hector Valenzuela*

- Brief Summary of Statewide Seed Assesment from the 2010 Seed Symposium.
- Variety Trials and Seed Viability in Hawai‘i

**11:15- 12:15 p.m.** Seed Basics: Botany and Biology by *Russell Nagata*

- Monocot and Dicot Plant Differences
- Open-Pollinated/Hybrid/Heirloom
- Inbreeding/outbreeding: Know Your Crops Mating preferences.
- Selfing/Cross Pollination Pollen Transfer (wind, insect, human)
- Reproductive Cycles: Annuals, Biennials, Perennials
- Different Strategies - population numbers, isolation distances, roughing and selection to maintain seed purity

**12:15 - 1:15 p.m.** Lunch

**1:15 - 2:00 p.m.** Growing Tomato for Seed in the Garden by *Glenn Teves*

- Overview of what conventional tomato breeders might consider:
  - Selecting for cultivars with characteristics that address the special needs of Island propagation.

**2:00 - 2:30 p.m.** Grafting Tomatoes for Nematode and Disease Resistance by *Angelo Loffredo*

- Why graft?
- Varieties for rootstock.
- How to care for the graft.
- Grafting Demonstration.

**2:30 -3:15 p.m** Growing Dryland Taro *by Glenn Teves*

**3:15 - 4:15 p.m.** Seed Saving and Storage: Basic Techniques and Ideas. Simple Techniques for a Home Mini-Seed Bank. *By Alvin Yoshinaga*

**4:15 - 4:30 p.m.** Seed Storage of Hawaiian Species and Trends for Some of the Lyon Arboretum Research Collections *by Tim Kroessig*

**4:30 – 5:00 p.m.** Action Agenda: Establishing your Network of Seed Growers.

Each district on the island has different growing requirements. Gather together according to the district you live in. Please choose a group moderator to record and organize your information. Your group will be continuing this process on Day 2.

Questions to consider and record:

- *What is average rainfall and temperature range of your location?*
- *What are you growing well and having success with?*
- *What are the most difficult problems you have encountered with growing?*
- *What crop or crops would your group like to focus on growing?*
- *What do you foresee as your biggest challenge? What are any thoughts on overcoming this?*
- *Group moderator to record all info for day 2 sharing*



## Agenda Day 2: Lyon Arboretum

**9:00 - 10:15 a.m.** Growing Requirements for Producing Lettuce for Seed *by Russell Nagata*

- Cleaning Techniques for Dry Seeded Crops.
- Pollination, Isolation, Optimum Number of Plants
- Seed Purity, Improving Lettuce Varieties, Roguing and Selection
- Seed Storage, Viability Testing

**10:15 - 11:15 a.m.** Harvest and Clean Lettuce Seed - demonstration and class participation.  
*by Tim Kroessig*

**11:15 a.m. - Noon** Harvesting Seed and Seed Processing: Techniques for Wet-Seed Crops.  
Tomato demonstration with group participation. *By Ann Tanaka*

**Noon - 12:30 p.m.** History of Seed Production and Crop Breeding in Hawai'i *by Hector Valenzuela & Ray Uchida*

**12:30 - 1:30 p.m.** Lunch

**1:30 - 2:15 p.m.** Tour of the Lyons Arboretum Seed Lab *by Tim Kroessig*

The Seed lab is small so we will break into groups of no greater than 10 people. Each group will have a 15 minute visit.

**2:15 - 3:00 p.m.** Ideas for Creating a Network of Seed Savers on O'ahu *by Leyla Cabugos*

**3:00 - 4:30 p.m.** Panel and Participant Action Agenda: Establishing Your Network of Seed Growers with Group Discussion.

Re-convene in your same groups according to Districts. The panel and group will work together to clarify information, address concerns and work towards specified goals.

- Group moderators will share information from day 1 and goals identified.



**Day 3 – Monday March 26, 9:30 - 11:00 a.m. Optional Farm Tour at at the Waimanalo Farm and Hawai'i Foundation Seed Lab (HFS), Waimanalo Station.**

Dr. James Brewbaker will share with us some of the knowledge attained through five decades of careful classical plant breeding. We will see the unique varieties he has growing in the field and visit his extensive seed storage collection he as developed through the years.

**11:00 a.m. - Noon** Tour of other farm projects.

Following the farm tour we have invited Dr. Brewbaker for lunch at *Sweet Home Waimanalo*. The cost of this lunch is not included in the workshop fee. Each person would pay their own cost. If you would like to join us please RSVP *by March 16th* to Lyn Howe at: <mailto:seedproject@kohalacenter.org>.

***Mahalo to Our Workshop Presenters:***

Hector Valenzuela Ph.D - CTAHR Extension Vegetable Specialist.

Russell Nagata Ph.D - CTAHR County of Hawai'i Extension Administrator.

Glenn Teves - CTAHR Molokai Extension Office

Alvin Yoshinaga - Retired Seed Conservation Laboratory-Restoration Ecologist at UH Mānoa

Jim Brewbaker PhD - CTAHR Plant Breeding, Biochemical Genetics

Nancy Redfeather - Coordinator Hawai'i Public Seed Initiative - The Kohala Center

Ann Tanaka- Master Gardener

Leyla Cabugos

Angelo Loffredo Ph.D - UH Manoa, Specialist On Biological Control Of Plant Parasitic Nematodes

Ray Uchida - CTAHR County Of Oahu Extension Administrator

Tim Kroessig - Lyon Arboretum Seed Lab

Lyn Howe - Workshop Coordinator



***THE HAWAI'I PUBLIC SEED INITIATIVE WORKSHOPS ARE MADE POSSIBLE  
THROUGH THE SUPPORT OF THE CERES TRUST.***