

USDA, ARS, Daniel K. Inouye U.S. PBARC, Tropical Fruit & Nut Germplasm Repository, Hilo, HI
W-6 Report for June 25, 2014
Tracie Matsumoto, Lisa Keith and Francis Zee (retired January 2014)

Dr. Francis Zee retired on January 11, 2014 after serving for 28 years as the curator of the Tropical Fruit & Nut Germplasm Repository in Hilo, HI. Dr. Zee started the repository in Hilo and grew the collection to include 13 designated clonal germplasm collections with over 1000 accessions grown on 33 field acres, greenhouses and a tissue culture laboratory. Currently, daily operations are maintained by 5 full time staff and acting curator.

Germplasm requests over the last year (June 16, 2013 through June 16, 2014): five hundred eight (508) requests were filled for *Carica/Vasconcellea* - papaya (205), *Ananas* - pineapple (105), *Psidium* – guava (48), *Artocarpus* – breadfruit (16), *Macadamia* (15), *Litchi* – lychee (13), *Mapighia* – acerola (13), *Averrhoa* – starfruit (7), *Canarium* – pili nut (6), *Dimocarpus* – longan (6), *Bactris* - peach palm (5), *Nephelium* – rambutan (3), *Theobroma* - cacao (10), *Camellia* – tea (49), *Myrica* – bayberry (3), *Vaccinium* – ohelo (2), and *Zingiber* – ginger (2). To increase the missing accessions for each collection, we surveyed “local” collections at the University of Hawaii College of Tropical Agriculture and Human Resources Waiakea and Kainaliu Experiment Stations. At the Waiakea station, 15 macadamia accessions not currently in the Hilo collection have been identified and requested. This scion material will be girdled as grafting material once the rootstocks reach the appropriate size. In addition, 15 assorted accessions i.e. *Eugenia*, *Feijoa*, *Averrhoa*, *Canarium*, *Dimocarpus*, *Theobroma* cacao, *Artocarpus* and *Litchi* have been identified and collected. At the Kainaliu station, 8 accessions i.e. *Litchi*, *Dimocarpus*, *Feijoa*, and *Psidium* have been identified. Gaps in our collection have also been identified at Fairchild Garden, Florida; cost of shipment and the importation requirements are currently being investigated.

In addition to our designated crops we also are continuing transfer of the USDA National Plant Germplasm System (NPGS) avocado germplasm from Miami to Hilo through Fort Detrick. Thirty three (33) avocado accessions with no visible laurel wilt and tested free of Avocado Sunblotch viroid (ASBVd) were transferred to Hilo. After quarantine and screening these trees are transplanted into larger containers and maintained in a screenhouse; scion wood from these accessions will be made available for distribution for research in Hawaii upon request. Avocado samples from Hawaii Island are being evaluated to determine if ASBVd is in Hawaii. A backup collection of 29 selected cacao, *Theobroma cacao*, accessions from Miami and Puerto Rico is maintained in Hilo. We are currently assisting Miami with field trial evaluations of select cacao varieties on Hawaii Island. These cacao varieties will be tested in field trials on Hawaii Island, Oahu and Puerto Rico. Breadfruit ‘Ma`afala’ scion and tissue cultures were sent to Puerto Rico for evaluation as a potential commercial crop.

The repository staff participated in the Take your Daughters and Sons to Work Day on April 23, 2014; demonstrations included grafting and hands-on projects making hibiscus cuttings and transplanting rooted cuttings into pots. Twenty children participated in this event. Staff also participated and presented information to community college students, visiting high school students, scientists, growers, business and political stakeholders.