State of Hawaii W-6 Technical Committee Annual Report for the Calender Year 2006

Complied by John J. Cho

Fifty-three individuals received 352 accessions in Hawaii during 2006. Of these recipients, 29 individuals or slightly over 54% requested 1 to 4 accessions totalling 70 in number of *Camellia sinensis* (tea); 1 individual from Pioneer HiBred, International requested 68 acc essions of *Glycine max* (soybean); 2 individuals requested an accession of *Prunus africana*; 2 individuals requested 45 accessions of Ficus carica (common fig); 2 individuals requested an accession of *Syzygium samarangense* (mountain apple); 1 individual requested 2 accessions of *Carica papaya*; and 1 individual requested 1 accession of *Vasconcellea goudotiana* and 1 accession of *Vasconcellea parviflora*; the rest are summarized below. Only 12 recipients responded to our query. Their responses are listed below.

I have also commented on the significance of two of the plant species distributed to Hawaii recipients. These include the following:

Camellia sinensis, first introduced into Hawaii in 1887, has recently taken a foot hold in the state with the introduction of new cultivars spawning a niche Hawaii grown tea industry (http://www.ctahr.hawaii.edu/oc/freepubs/pdf/tea_04_07.pdf). In 2002, the Hawaii Tea Society was founded. This Society maintains a tea plant distribution program, conducts a grower's tea competition event and offers educational programs. Several small farms have started production mainly on the island of Hawaii. Recently a $100 million-plus project has been proposed for the island of Kauai for the development of 290 estate lots, along with a 100 acre tea plantation, taro fields, a rodeo and cacao trees just north of Kapaa.

Prunus africana in its native habitat is being threathened because of illegal harvesting of the bark to treat prostate hypertrophy. The dried bark is mainly exported to Europe where France is the biggest importer followed by Spain. Commercial exports began in 1972 and the over the counter retail trade is estimated at over $220 million (http://www.wwf.org.uk/filelibrary/pdf/pafricana.pdf). The National Tropical Botanical Garden and the Honolulu Botanical Gardens both interested in the conservation of tropical plants have received seedlings of *P. africana* to include in their gardens.

***Camellia sinensis* recipient responses:**

Tracie Matsumoto, USDA, ARS, Pacific Basin Tropical Plant Genetic Resources Management Unit, Hilo, Hawaii 96720-4487 received one accession. She reports, "the tea germplasm is doing well in the Hilo area".

Eva Lee, Volcano, Hawaii received 5 accessions from 2 separate requests and she reports, "I have had an 80% success rate of rooting cuttings received from 2006. The conditions are small one table green houses in Volcano Village. Aloha"

Donna Grabow, Volcano, Hawaii received 2 accessions. She reports, “I received 3 different species of green tea cuttings from the NPGS in 2006. The cuttings have grown roots, and about 90% survived, which is better than the success rate of the cuttings I received last year. The success is probably because I didn't let as much direct sunlight shine on the cuttings.The cuttings from last year are doing well planted in the ground. They are small bushes now, though some (about 15%) still only have one leaf. I put a little plant food on them about 4 times a year. Thank you so much for helping me get started with a tea farm. I have joined the Hawaii Green Tea Society.”

Andrew Plack, Hilo, Hawaii received 3 accessions. He reports, “I have received germplasm,(tea cuttings), cammelia sinesis. I have collected material a number of times from the system. The material has failed to root every time, every bit of it. Thinking My methods at fault ,I allowed my associate to try but the trial was no better. I was following the recommended guidelines provided by the system. I am a farmer in east hawaii. I have experience in grafting, propagation, and espellier technique. I do not have an automated greenhouse watering system, the key missing element. Pickup of material was also difficult because of the notification system and its infrequency. I think cuttings with some roots would yield 100% better results for all the efforts..

Aileen Yeh, Hawaii Agricultural Research Center, Hawaii received Camellia sinensis and reports, “I did root cuttings for other people, so I don't know how theirs are doing. I have planted some of al the varieties, and see much difference in my areas. My elevaton is about 600 ft, and I also have some at 3,000 ft.”

***Prunus africana* recipient reports:**

Naomi Hoffman Honolulu Botanical Gardens responds, “We received 6 *Prunus africana* plants from the USDA/ARS Germplasm Repository on 5 May 2006. There has been no mortality and the trees were planted out in the Ho’omaluhia Botanical Garden, where they are now 4’ tall and doing very well.”

Michelei Kikuchi, National Tropical Botanical Gardens reponds, “We did receive a shipment of P. africana seedlings that were collected in Kenya, and so I am going to assume these are the plants you are referring to.I talked with our nursery manager and he said that all 6 seedlings survived and are doing well. Four have been planted out into the garden, and two are still in the nursery (they will be planted out soon, as they are both about 6' in height). I have not seen the ones that have planted out as I don't know where they are, but apparently they are "huge" and doing extremely well.”

Ficus carica recipient reports:

Ken Love kenlove@hawaii.edu responds, “we received a number of fig varieties for testing in Kona as part of a WSARE grant. From the 12 Trees Project, http://www.hawaiifruit.net/12trees.html figs proved to be the most valuable fruit crop in the district. many of the figs will be planted at the UH Kainaliu station. From Hilo I received

wax jambu from Dr Zee as there are no trees on this side of the island and I wanted to see how they perform."

Gerry Herbert, Kawanui Farm, Honalo reponds, "We received fig cuttings from Davis and are in the process of rooting them out. Of the varieties we received "Panachee" and "Violette De Bordeaux" have rooted and we have planted them out in the field. Of the other varieties, some are now showing small leaves, and some look as if they are not going to take."

Other plant accessions recipient reports:

WilliamCook, Honolulu reponds, "I now have the packing list from my 27Je06 accessions/order 181332. Evaluating: Lablab purpureus: PI 219696.....germination failure 509114.....does well here, flowering/bearing perennially, but not a bush(the Co 7 plantid refers to the Coimbatore series of TNAUniversity) I am evaluating Lablab for perennial flowering(many varieties only flower here in "winter".Also Lablab has, like common bean, vegetable pod types as well as those of which only the seed is edible.Pennisetum glaucum: PI536319.....summer crop... winter sowing gives small plant.. variety is from Burkina Faso, where it is summer sown...does well here."

Tracy Johnson Hawaii Volcanoes National Park Quarantine Facility Institute of Pacific Islands Forestry, Pacific Southwest Research Station USDA Forest Service P.O. Box 236 Volcano, Hawaii 96785 tel: 808-967-7122 fax: 808-967-7158 reponds, "To respond to your request for feedback on my germplasm request: We did receive lalo grass from Molokai last year. We planted it out at Waiakea Experiment Station (CTAHR). In general I am happy with the results. Although it was hot and dry at the time we received the grass, the runners that were placed on the ground (which was shallow soil and very rocky) and covered with a thin layer of cinder (1-2 inches) within 2-3 days survived and are now beginning to grow out well. Others that did not get covered with cinder until about 1 week after receipt (laying out on the ground drying out for several days) did not survive well not surprisingly. We showed Francis Zee some of our grass and there was some question whether it was the same lalo as what he received a few years ago. Is there a possibility of confusion between different types? Ours seems to be growing well - spreading and staying low. I know he is very happy with his."

Bernie Kratky, University of Hawaii reponds, "I received edible ginger seed pieces from Francis Zee's group.These were from the first year's grow-out of tissue culture propaged material. Seed pieces (50 grams) were planted in 3 gallon pots containing peat-perlite growing medium and sub-irrigated with a complete nutrient solution at the Waiakea Experiment Station in out doors conditions. Yields ranged from 1.3 kg per pot when only one seed piece was planted to 3.2 kg/pot when 3 or 4 seed pieces were planted. The resulting ginger was of good quality and apparently disease free."