

# BREADFRUIT INSTITUTE



PROGRESS REPORT - November 2006

The Breadfruit Institute achieved several key goals in recent months. We now have seven varieties in tissue culture, are sending 3,000 plantlets to farmers in Honduras, and have equipped the Field Station to support research on breadfruit.



## Breadfruit Distribution First Project Underway

The Breadfruit Institute signed an agreement with Sustainable Harvest International (SHI) to ship 3,000 plantlets of five breadfruit varieties to small farmers in Honduras. An initial shipment of 200 plantlets will be sent in November, with the remainder to ship in early 2007. SHI is a not-for-profit organization specializing in introducing new plants and agricultural practices in Central America, with projects in Honduras, Belize, Nicaragua, and Panama. We are excited about this first partnership as SHI has worked with over 750 families, implementing alternatives to slash-and-burn farming, planting more than 1.9 million trees, and converting 5,000 acres to sustainable uses.

Meanwhile, a test shipment of plantlets was FedExed to NTBG from the University of Guelph (UOG)

tissue culture laboratory. Four plastic growth boxes (5-6 plantlets each) came snugly packed in a small Styrofoam box. They arrived in two days after easily clearing customs and agricultural inspection. By comparison, root cuttings must be quarantined in a nursery in Hawaii for two years after delivery. Following Dr. Murch's written guidelines, the plantlets were transferred into the greenhouse to familiarize Institute staff with the process involved in shipping, handling, and growing breadfruit plantlets. Each step of the process was photographed for a planting guide that will be translated into Spanish for the Honduran project. Informational materials about growing and using breadfruit are also being prepared.

## New Publications About Breadfruit

- Ragone, D. and C. G. Cavaletto. 2006. Sensory evaluation and nutritional composition of 20 breadfruit (*Artocarpus*, Moraceae) cultivars. *Economic Botany* 60: 335-346.
- Ragone, D. 2006. *Artocarpus altilis*. In: Elevitch, C.R. (ed.). pp. 85-100. *Traditional Trees of Pacific Islands: Their Culture, Environment, and Use*. Permanent Agriculture Resources (PAR), Holualoa, Hawaii.
- Ragone, D. 2006. *Artocarpus camansi*. pp. 101-126. *Traditional Trees of Pacific Islands*.
- Ragone, D. and H. Manner. 2006. *Artocarpus mariannensis*. pp. 127-138. *Traditional Trees of Pacific Islands*.

## Vital Work Begins at Field Station



Research activities commenced at the recently equipped laboratory of the Breadfruit Institute Field Station. The facility was the base for a 2-week project headed by a Ian Cole, a graduate student from Dr. Murch's program, and a former NTBG intern. Close to 300 specimens were shipped to the labs at the University of British Columbia and UOG, where they will be re-cultured and multiplied for research, conservation, and distribution. Shoot tips and leaves from 20 selected varieties were collected, cleaned, and placed in tubes of specialized media. Samples were also collected from other trees (ones in poor health, varieties rare in their home countries, or varieties with the potential for salinity tolerance), furthering our long-term goal to have the entire collection conserved *in vitro*. Finally, trees were pruned and sprayed with liquid fertilizer to initiate bud growth for future collection. This work is critical to the long-term survival of the collection.

## Global Conservation Strategy to Preserve Breadfruit

Dr. Ragone is working closely with the Secretariat of the Pacific Community (SPC) to develop a global conservation strategy for breadfruit, one of 35 crops judged important for food security by the international community (International Treaty on Plant Genetic Resources for Food and Agriculture). An extensive questionnaire has been sent to breadfruit collection curators worldwide. Plans for

developing this conservation strategy will also include discussions between managers of plant genetic resources and other experts from developing and developed countries. The Global Crop Diversity Trust ([www.croptrust.org](http://www.croptrust.org)) is as an essential element of the funding strategy of the Treaty and it has commissioned SPC to coordinate the breadfruit strategy. Conservation strategies for 20 crops are in varying stages of progress; when completed they will be used to guide funding decisions of the Trust.

## Breadfruit Promoted at Maui Fair

The Breadfruit Institute took breadfruit on the road by participating in the 84th Maui County Fair held September 28-30 and October 1. The fair is one of the most popular events on Maui and organizers expected more than 92,000 people to attend. The Maui County Farm Bureau helped coordinate the extensive horticultural displays and exhibits that included orchids, tropical fruits and vegetables, flower arrangements, and more.

The Institute's booth included several distinctive varieties of live trees as well as samples of fruits and leaves.

Displays and printed materials illustrating BFI

activities and resources were presented. Cooking demonstrations were held daily.

Seeing and tasting breadfruit was a first-time experience for many of the hundreds of visitors to the booth, including those from the U.S. mainland. Some island residents were unfamiliar with how to grow and use this versatile fruit and indicated they would like to eat more breadfruit. They were interested in the many recipes compiled from our Breadfruit Cookoffs. They also expressed great interest in learning how to grow the trees. The Breadfruit Institute will continue participating in local fairs and other events to improve local understanding and appreciation of breadfruit.

