

## POTATO OF THE PACIFIC



Photo > Jack Wolford

**It's unlikely** you'll find breadfruit in your local supermarket – most North Americans have never even heard of it. Commonly compared to the potato, this fast-growing fruit has long been a dietary staple of Indigenous peoples in the South Pacific. Aided by research at UBC Okanagan, breadfruit is experiencing a revival in parts of the world where food security is an issue.

At the Centre for Species at Risk and Habitat Studies (SARAHS), Prof. Susan Murch has been on a six-year mission to locally cultivate small breadfruit trees. Using sterile buds from mature trees at Hawaii's National Tropical Botanical Garden, Murch's goal is to propagate breadfruit trees for distribution in parts of the world where there isn't enough food, particularly in the wet tropics.

The Food and Agriculture Organization (FAO) estimates over a billion people globally are undernourished. "I think it's a wake-up call and we need to think about how people in the world are eating," says Murch, who holds a Canada Research Chair in Natural Products Chemistry. While most of the world relies on the four big crops of rice, potato, wheat and maize, Murch believes that underutilized crops such as

breadfruit provide real solutions for the world's food needs.

In its first four years, Murch's Plant Chemistry & Biotechnology Lab cultivated 7,500 trees for distribution. Within a month of distributing the first batch, she was inundated with requests for over two million trees from organizations around the world, including Pacific Island nations, non-government organizations and commercial enterprises.

"What we thought we were doing was understanding something about the science and the growth of a plant," says Murch, "but what we were actually doing was breaking through a barrier that had been there for a couple of hundred years."

To address the rising demand, Murch's lab has partnered to create Global Breadfruit, a company positioned to meet the demand for propagated trees. Importantly, the project will return a percentage of profits as well as the traditional breadfruit varieties, propagated abroad, to their place of origin.

Murch's research also involves an ecological and nutritional analysis of the hundred varieties of breadfruit, with an eye to determining which varieties are suitable

for widespread distribution. This research will help to determine which varieties could eventually appear in supermarkets around the world, as an ingredient in common foods such as bread flour or chips.

Whether breadfruit becomes the next "potato" remains to be seen. For Murch, what breadfruit does represent is one more possibility for the future of sustainable agriculture. ■

Global Breadfruit is the result of a partnership between UBC Okanagan, Cultivaris and the Breadfruit Institute at The National Tropical Botanical Garden in Kalaheo, Hawaii. The Plant Chemistry & Biotechnology Laboratory and the Centre for Species at Risk and Habitat Studies' (SARAHS) at UBC Okanagan were established with funding from the Canada Foundation for Innovation.