



Taro is Samoa's main staple food as well as a lucrative cash crop. When taro leaf blight (TLB) hit the country in 1993, taro exports were worth \$T20 million annually.

TLB wiped out the entire taro industry in a matter of months, it raised food security concerns and export revenues nose-dived thus upsetting the nation's comfortable level of foreign reserves.

Across the food sector, taro was soon replaced by less nutritious starchy staples in the form of instant noodles and rice.

Samoa's taro industry is now slowly getting back on its feet after the devastating outbreak of TLB caused by the fungus *Phytophthora colocasiae*.

New taro cultivars recently released have been assessed for their production qualities and closely studied in trial plots in various locations around the country.

This approach has allowed farmers to have direct input to the assessment of the cultivars, which passed the acid test for taro production in Samoa post-TLB.

Their assessments - good tasting, high yielding and, most importantly they're TLB-tolerant.

"They are very similar to the kind of taro we used to have where taste was the top priority," the CEO for the Ministry of Agriculture Asuao Kirifi Pouono said.

"These new varieties all have the taste we Samoans prefer," he reminisced about the so-called highly favoured taro Niue.

This was the main variety grown before 1993 but was highly susceptible to TLB.

"We call it mapo or firm to bite. They are also red, similar to the taro grown throughout Samoa pre-TLB."

In October, three new taro cultivars were launched by the Minister of Agriculture Taua Kitiona.

One of the varieties named Taua after him. The other two, taro So'o and taro Tonu, are named after researchers who worked on the breeding programme at Nuu Crop Development.

Asuao said more than 20 new varieties have so far been released to farmers since the breeding programme started.

The main push now is to bulk up these new cultivars to provide adequate planting material for farmers.

In response to the TLB outbreak in Samoa, and in recognition of the continuing loss of taro genetic diversity throughout the Pacific, the Australian government, through AusAID, funded a regional project entitled Taro Genetic Resources: Conservation and Utilisation (TaroGen).

One component of the project focused on breeding and was based at the Alafua Campus of the University of the South Pacific (USP). The Taro Improvement Programme was designed to work

with national programmes run by MAFF and with farmers around the country to develop a national strategy for taro improvement.

The first stage of the project evaluated taro diversity in regional collections and in other cultivars sent to Samoa in response to a request for help. Initially, new TLB-tolerant varieties from the Federated States of Micronesia, Palau and the Philippines were introduced, both to maintain taro production and to assess their susceptibility to TLB in Samoa.

Taro Fili (from the Philippines) became the first TLB-tolerant variety that local consumers liked. When boiled, it had the right firmness and taste but developed too hard a texture when baked in the umu (Samoan earth oven).

A variety from Palau with good tolerance to TLB, good taste and reddish in colour was also well received. Polo voli, (so called because of its volley ball shape) became a winner with farmers and consumers.

The Taro Improvement Programme put a participatory breeding project in place to work with farmers to screen and select new clones, initially from the Pacific.

The active participation of taro growers has been the key to the success of the programme, which has continued work on breeding and selecting superior taro varieties since the TaroGen project concluded.

Funding and technical assistance is being maintained with support from the Secretariat of the Pacific Community (SPC) and USP.

The recent release of the new cultivars shows the importance of agencies working together to tackle a problem. It also highlights the benefits of a participatory approach to variety selection and breeding.

The need to take into account different growing conditions within a country, and changes in these conditions, becomes even more important with the increasing impact of climate change. The programme has recently developed crosses (lines) between taro from the Pacific and from Asia, which are receiving excellent feedback from farmers in Samoa.

Donors are often concerned about the sustainability of a project once their funding support has ceased.

The fact that the Taro Improvement Programme is still active and is supported nationally and regionally is convincing evidence of the project's sustainability.

• *For more information, please contact the helpdesk of SPC Land Resources Division: Irdhelpdesk@spc.int.*

{backbutton}