

# Taro leaf blight in Samoa – tackling the problem as partners

A Taro Breeders Club and Taro Improvement Project are two initiatives in Samoa helping farmers to overcome the problem of taro leaf blight. Plant pathologist Dr Danny Hunter and masters student Pelenato Fonoti have been working on the project.

In 1993, the outbreak of leaf blight in Samoa devastated the staple taro crop, decimating farmers' incomes from local and overseas markets.

Traditional taro production in Samoa was relatively simple before the arrival of taro leaf blight, which is caused by the fungus *Phytophthora colocasiae*. The damage was catastrophic because the two most common taro varieties proved to be susceptible to the disease. Attempts to solve the problem using fungicides and changing cultural practices failed.

Subsequently, the Samoan Ministry of Agriculture, Fisheries, Forests and Meteorology has identified taro varieties from Micronesia, Palau and the Philippines that have some resistance to taro leaf blight, but these are not the final answer to improved taro production in Samoa.

## TACKLING THE BLIGHT

Tackling taro leaf blight is one of the objectives of the regional Taro Genetic

Resources: Conservation and Utilisation (TAROGEN) project. This three-year project is being implemented by the Secretariat of the Pacific Community in collaboration with the University of the South Pacific and \$2.3 million in funding from the Australian Government.

TAROGEN helps support a breeding program in Samoa by providing the services of a plant breeder/pathologist and by funding masters student, Pelenato Fonoti who is helping the Ministry evaluate taro from existing breeding lines.

A university Taro Breeders Club and Taro Improvement Project (TIP) have established involving university staff and students, the Extension and Research Divisions of the Ministry, and local farmers.

## TARO BREEDERS CLUB

The Taro Breeders Club arose from the need to improve the level of leaf blight resistance in the taro types found in Samoa. At present, the club has a membership of almost 50 and is growing rapidly.

One particularly encouraging aspect is the growing number of farmers involved, giving students the opportunity to interact with Samoan farmers on a regular basis. Members learn about the taro breeding process in a practical way, and have opportunities to produce their own cross-breeds and seedlings for field evaluation.

The club represents an innovative approach to teaching and learning and, in an environment of limited resources, ensures there are many hands to do plant-breeding work.

## TARO IMPROVEMENT PROJECT

The Taro Improvement Project aims to give taro growers more options for improving production and managing taro leaf blight. It works as a partnership between research and extension staff from the University of the South Pacific, the Ministry and Samoan farmers.

Currently the project is working with more than 30 farmers on the island of Upolu to evaluate introduced taro varieties. TIP meets monthly at various locations to share information, exchange ideas and evaluate the new taro varieties.

Interest in both initiatives has been overwhelming and plans are underway to extend the TIP project to the island of Savai'i. Although providing immediate benefits to Samoa, both initiatives have important contributions to make to other Pacific Island countries.

Student members of the breeders club will improve the taro breeding capabilities of many countries when they return home, and improved taro varieties will assist other countries to combat taro leaf blight. – DH ■



Close-up of taro leaf blight on a taro leaf.