NATURE'S WAY COOPERATIVE

NWC Research and Extension News

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Irrigation makes the difference between success and failure for export farmers

Extreme dry weather conditions experienced throughout June, July and August in the Western Division of Fiji have caused many farmers to lose their crops while those with access to irrigation have managed to be successful.

Agriculture in the Western Division is generally rain-fed which means that farmers are at the mercy of the weather. In extreme drought conditions such as experienced in 1998-99 it was not just farmers income that suffered but also the availability of food as well.

Nature's Way Cooperative export crops such as papaya and eggplant suffer significantly from long consecutive dry periods which leads to decreased vigour and flower drop, significantly impacting production. The experience of the 2014 dry season is that there has been a significant increase in the number of export farmers with access to irrigation. This increase can largely be attributed to direct support provided to farmers by government and aid agencies in the form of bore holes, water pumps and water pipes.

For farmers such as those from the Sabeto Organic Producers Association (SOPA), the availability of water pumps has made the difference between success and failure for their organic papaya plantings this year. SOPA was assisted by the EU funded SPC project—Improving Key Services to Agriculture Project (IKSA) with irrigation equipment in the early part of 2014. When the extreme dry weather began in June 2014, many farmers in the area lost entire crops, however SOPA farmers were able to pump water out of the river to irrigate their young trees and as a result, the group is selling over one ton of papaya weekly to an exporter and to the local market.

Left: A non-irrigated papaya block in the Sigatoka Valley suffers from decreased vigour and flower drop (October 2014). Right: Meanwhile an irrigated papaya block in the Sabeto Valley continues to bear fruit (October 2014.

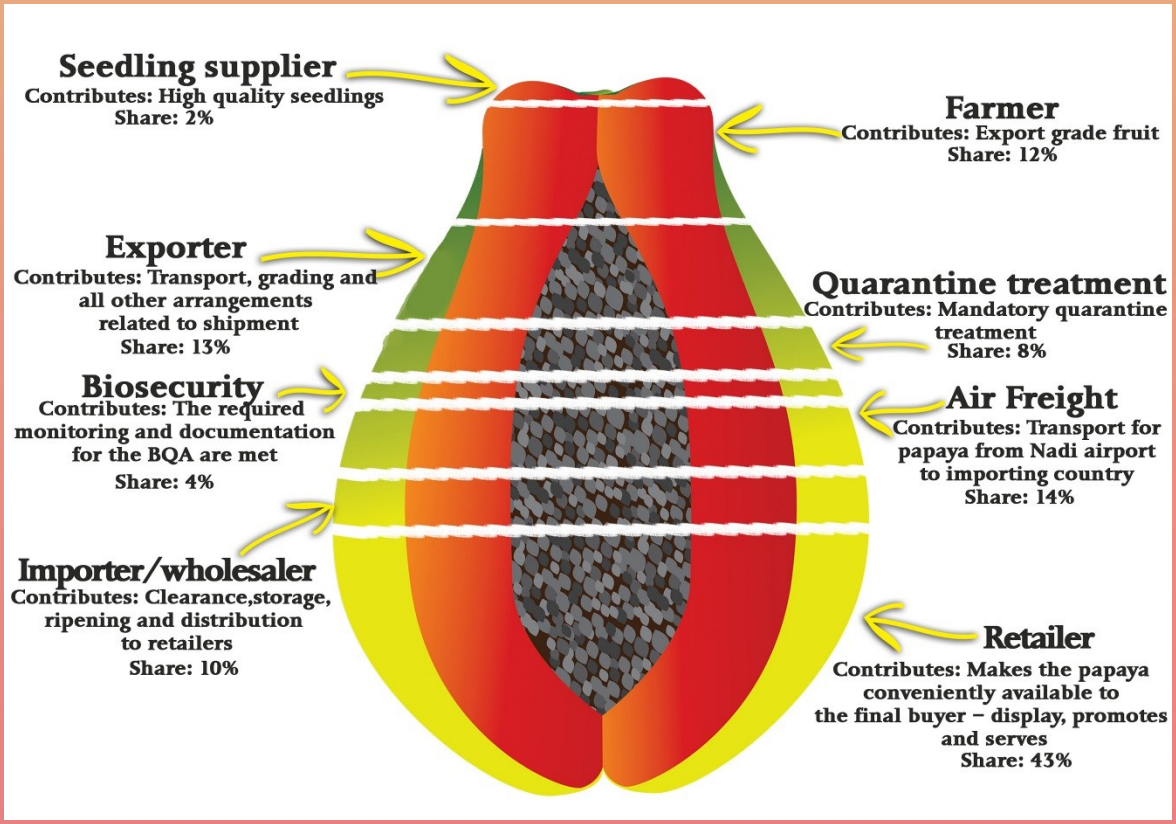
Research Update

Fiji Papaya Value Chain features in newly released 'Pacific Agricultural Value Chain Guide'

October 24th 2014 saw the official launch of the Agricultural Value Chain Guide for the Pacific Islands. The value chain analysis guide targets farmers, traders and policy makers. It is designed to be practical and unlike many other value chain guides, is directed primarily at actors in the value chain. It is designed to take account of challenges specific to the Pacific, such as small volumes, high transportation costs and producers being far from market. The guide, produced by Koko Siga Pacific (KSP) with support from the Technical Centre for Agricultural and Rural Cooperation (CTA) is the outcome of participatory consultations with farmers and the private sector to understand what it is that they want in value chains for export markets. The Fiji Papaya Value Chain features as a key example used throughout the guide.

Fiji's Permanent Secretary for Agriculture, Ropate Ligairi, welcomed the guide, saying that effective value chain management is a key driver of the Fiji government's objectives for agriculture, as outlined in the recently launched Fiji 2020 Agriculture Sector Policy.

The guide will be used with Fiji's papaya industry through a series of trainings scheduled for the first quarter of 2015. The guide will also be used by the Pacific Island Farmers Organisation Network (PIFON) as a training tool in the coming months in Vanuatu, with PIFON member Farm Support Association and, in Taveuni, Fiji, with PIFON members Tei Tei Taveuni and Tutu Rural Training Centre.



Graphics are a key feature of the new Value Chain Guide. This graphic helps to describe how each actor has a role to play in the chain and receives a share of the overall price of the end product.

Commercial organic pilot plantings bring good returns for participating farmers

Building on research findings from the FPP, a group of young farmers from the Sabeto Valley in Nadi have formed a group to expand production of organic papaya. The Sabeto Organic Producers Association (SOPA) are using a local organic certification system called the Participatory Guarantee System (PGS). The PGS programme is an initiative driven by the Pacific Organic & Ethical Trade Community (POETCom) through funding from the International Fund for Agricultural Development (IFAD).

The first SOPA harvests began in August 2014 and in only three months, over 7 tonnes of papaya has been harvested for both the export and local markets. SOPA is still in the process of receiving its organic PGS certificate so in the interim the fruit is being marketed as conventional fruit.

In line with findings from the FPP, the cost of SOPA's organic papaya production to date is around the same as the cost for conventional production.

Non-export organic papaya from the Sabeto Organic Producers Association before distribution to the local markets.

'Fiji Red' papaya brand gets a new look

In line with findings from recent consumer focus groups in New Zealand, the FPP is working to give the 'Fiji Red' brand a new look.

With support from the Pacific Islands Trade and Invest (Auckland office), a design company has been working with the industry to simplify the 'Fiji Red' logo as well as to design a new vented papaya box that incorporates the logo.

The new logo and box designs are still under consideration by the industry but consumers overseas might soon benefit from a new look for the same great tasting papaya.

Project Overview

The Fiji Papaya Project (FPP) is an applied research project aimed at improving the competitiveness of our industry for the benefit of its members and the broader community. The FPP began in July 2009 and has just been granted another 6 months of funding to continue research activities. Funding for the Fiji Papaya Project is provided through the Australian Centre for International Agricultural Research (ACIAR) in partnership with the Secretariat of the Pacific Community (SPC), NWC, KSF and the Fiji Ministry Of Agriculture (MOA).

FIJI PAPAYA PROJECT

PACIFIC BREADFRUIT PROJECT

Research Update

Breadfruit demonstrates its drought tolerance during extreme dry weather across Fiji

Pilot breadfruit orchards established through support from the Pacific Breadfruit Project (PBP) have demonstrated their capability to handle drought provided they are well established.

While many crops succumbed to the extreme dry weather experienced around Fiji (June—Sept 2014), a majority of the newly established breadfruit orchards have survived with only minimal amounts of water. PBP staff have observed that once breadfruit trees have been established in the ground for at least 4 months they are quite resilient to dry conditions.

These observations are encouraging for breadfruit farmers who understand the intensity of the normal dry season in Fiji's Western Division and the very real possibility that we will experience more frequent and intense drought conditions as a result of climate change.

Many annual crops are currently suffering from a severe drought in Natewa Village, Vanua Levu, Fiji, but their many varieties of breadfruit are still healthy and bearing fruit, providing food security for the local community.

PBP staff discuss the performance of young breadfruit trial orchards during the extreme dry weather (June—Sept 2014). The brown grass and surrounding vegetation indicates the extent of the dry weather while the breadfruit looks surprisingly healthy.

Left: The normally dry season tolerant tannia taro wilts from the extended drought stress in Natewa Village, September 2014. Right: Meanwhile, Natewa's many breadfruit varieties continue to bear heavy crops in the same location in September 2014.

University of Hawaii Pacific Regional Breadfruit Initiative wins US top award and strengthens ties in South Pacific

Article adapted from http://www.hawaii.edu/news October 28 2014

A University of Hawai'i project to promote and expand breadfruit use in the Pacific has won a top award from the University Economic Development Association (UEDA). Recently, the Pacific Regional Breadfruit Initiative, a project of UH's Pacific Business Center Program (PBCP) won UEDA's award for Research and Analysis in Santa Fe, New Mexico. Receiving the UEDA Award of Excellence was the PBCP's Senior Business Development Manager C. L. Cheshire, and Director Failautusi Avegalio.

Avegalio attributes the Pacific Regional Breadfruit Initiative's success to the groundbreaking research and analysis led by the National Tropical Botanical Garden (NTBG) Breadfruit Institute and its Director, Professor Diane Ragone. That research affirmed the many uses of the breadfruit tree and fruit or *'ulu* in Hawaiian. According to Avegalio, breadfruit is gluten free and the U.S. market demand for gluten free products is projected to hit $15.5 billion in 2016. Major byproducts of breadfruit include the breadfruit sap that is 100 percent organic latex, and the breadfruit flower, which contains several powerful chemical compounds more potent than those used in the leading synthetic insect repellent on the market. The tree's wood is resistant to marine worms and termites. The breadfruit tree also has a high salinity tolerance, enabling it to survive inundation from rising tides where traditional food crops such as taro, banana, tapioca, and yams cannot.

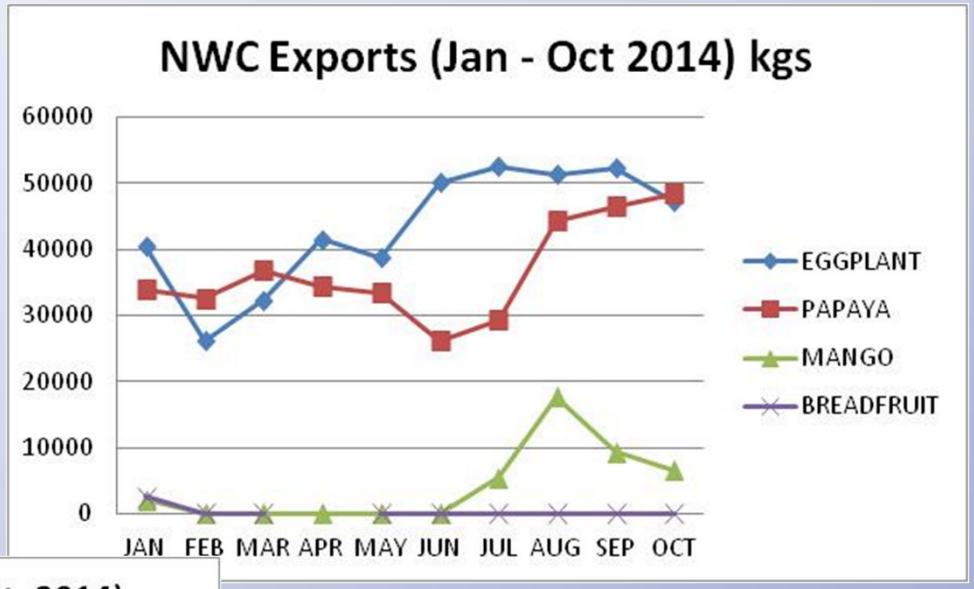
Support from the Ulu Pono Initiative of Hawai'i helped to launch the Pacific Regional Breadfruit Initiative's inaugural Breadfruit Summit in 2012, which was hosted in Pago Pago by former Governor Togiola of American Samoa. American and Western Samoa are leading the initiative in Polynesia. In 2013 the Micronesian Chief Executives Summit endorsed the Breadfruit Initiative for Micronesia under the leadership of Governor Inos of the Commonwealth of the Northern Marianas Islands in Saipan. Fiji-based agriculture consulting firm Koko Siga Pacific, the University of the South Pacific, and the U.S. Embassy in Fiji are collaborating on a Melanesian Breadfruit Summit in early 2015. A Pacific Regional Breadfruit Conference is being planned for October 2015 in Hawai'i.

Failautusi Avegalio (center), Director of UH's Pacific Business Center Program with top US award.

Project Overview

Established in May 2011, the four-year Pacific Agribusiness Research and Development Initiative (PARDI) project, "Developing commercial breadfruit production systems for the Pacific Islands", aims to assist small-holder farmers to move to growing breadfruit as a commercial crop. The first stage of the project will deal with commercial orchard production and post-harvest handling for fresh exports. The second stage will deal with commercial processing of breadfruit. The project is funded by the Australian Centre for Agricultural Research (ACIAR).

Export Update



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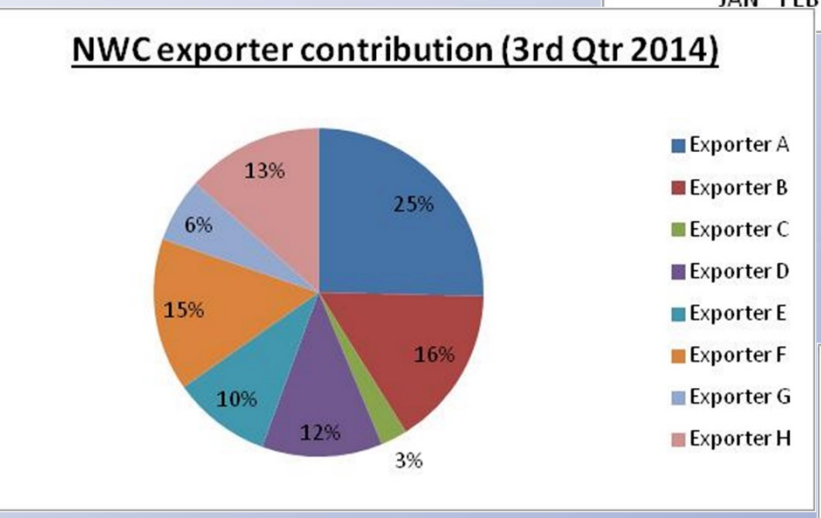

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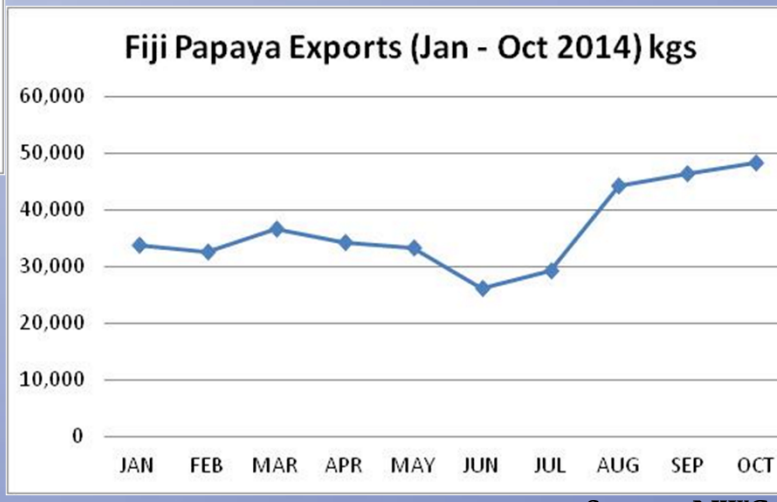

Source: NWC

NWC Research and Extension Partnership Committee:

Australian Government
Australian Centre for International Agricultural Research

NATURE'S WAY COOPERATIVE

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AGRICULTURE

PARDI

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TAIWAN ICDF