

## INSIDE Stories



**Keeping taro safe  
from pest and  
diseases**



**High demand for  
Fijian breadfruit  
&  
Breadfruit  
underutilised to  
boost food security  
and income  
generation**

**More from around  
the Pacific**

Editor in Chief :Mohammed Umar  
Managing Editor: Aterina Samasoni

SPAN VOL.24 No.4  
ISSN - 1015-9502  
April 2007

## New Agriculture College



*Side view of the newly established Vanuatu Agriculture College.*

**Based on Vanuatu Daily reports  
Submitted by Richard Namel - ALO Vanuatu**

The government of Vanuatu earlier this year launched its Agriculture College with pride, as more than hundred people from Luganville and the adjacent areas joined to witness. Its an occasion seen as a stepping stone to the national development of this country.

The college is situated in Luganville, Santo in the northern part of Vanuatu. The opening of the new agriculture complex initiated 10 years ago fulfils one of the government's main intentions to address this issue.

The Vanuatu government thanked the Chinese government for assisting the country as it leads its way into economic prosperity through the agriculture sector. On his official remarks, Prime Minister Ham Lini stated; "it is a significant achievement in the history of development in Vanuatu, a history of remarkable cooperation". Many leaders view that the agriculture sector can reward and sustain the majority of Vanuatu's population only if they are willing to receive improved knowledge and skills which will enable them to produce and trade their products locally and abroad.

With the opening of this

college, the Vanuatu government is hoping to increase the scope of opportunities for Ni-Vanuatu through the education system thus accommodating the number of secondary school dropouts. However, it is also the aim of the Vanuatu government to see that existing farmers as well as agribusiness activities take up the initiative to make full use of the college to acquire the skills for the development of agriculture in the country. The government is anticipating that if the farmers undertake such training then they will further appreciate the concept of tilling their land.

The government has announced that the course contents of the institution will actually help farmers treat every day farming activities as a business, especially in the area of rural business, finance and marketing.

Many agriculture experts foresee that in order for the country to fully benefit from this institution, the agriculture practices must change. The government has earmarked Mr. Charlot Longwah, Vanuatu's international award winning expert on micro processing to provide training in the institution.

Longwah's vision is to see other

**cont page 2**

## New agriculture college.....from page 1

farmers plant large plantations of valuable crops such as cut nut (*Barringtonia edulis*), pili nut (*Canarium species*), sea almond (*Terminalia catappa*), etc. which could be sustained over many years as he says is the only way to sustain the country economically.

The event has brought together a high delegation from the Vanuatu government as well as representatives of other stake holders and representatives of aid donors in the country including representatives from the government of the Peoples Republic of China who funded this project.



People gathered in front of the reception area during the official opening

## Cold presevation to market coconut juice

Coconut water, the liquid **endosperm** inside **young coconuts**, has long been a popular drink in the tropics. It is naturally fat-free and low in **food energy** (16.7 calories or 70 kJ per 100 g), and has potential as a **sports drink** because of its high **potassium** and mineral content.

West Europe's energy drink sales accelerated by 15 per cent to a volume of 383 million litres and a value of over € billion in 2005, according to drinks consultancy Zenith International.

A further 12 per cent rise was expected to be achieved in 2006, taking volume to 428 million litres, which equates to an average of 1.5 litres per person.

Coconut water's potential however remains largely untapped. To date, most coconut water is still consumed fresh in tropical countries, largely because, once exposed to air and warm temperatures, it rapidly deteriorates.

In addition, canned coconut water is not ideal. Sterilising the product using high temperature and short-time pasteurisation destroys some of the nutrients in coconut water and almost all of the delicate flavour.

The cold preservation process recommended by FAO instead protects the natural flavour of coconut water. The process involves filtration, bottling

By Anthony Fletcher, Food Navigator

and rigorous temperature control.

It allows farmers to produce bottled coconut water that stays fresh from 10 days to three weeks. This will help to meet demands from domestic retail markets.

*"The simple cold preservation process will provide the consumer the convenience of purchasing a bottle of refreshing coconut water and opens*

*new opportunities for small farmers and entrepreneurs in coconut producing countries,"* said Rolle.

The cold preservation technology is not protected by a patent and can be used by anybody.

This process was developed and evaluated in Jamaica, in close collaboration with the University of the West Indies, the Coconut Industries Board and the Jamaican Scientific Research Council.



Roadside stallers selling fresh coconut

# Keeping taro safe from pest and diseases

Submitted by Nicks Maniha - ALO PNG

Diagnostic software and virus-free germplasm are spearheading efforts to protect taro's value to the South Pacific.

About 130 pests and diseases of taro have been documented, with impacts ranging from mild to lethal. These pests and diseases do not, however, occur in all countries in the region. Indeed, the majority of severe pathogens have restricted distributions, occurring in only a few locations. But it leaves many countries highly susceptible to the kind of outbreak that affected Samoa through a lack of resistance.

The Secretariat of the Pacific Community (SPC) Plant Protection Service in Suva, Fiji, has a large brief to deal with plant health and is working to combat factors that can ruin taro production. These include an increasing risk of exposure to lethal pathogens and susceptible plant varieties, plus inadequate diagnostic, screening and pest management procedures.

In 1993, a breeding program was established based on disease resistant taro varieties in Papua New Guinea (PNG) but efforts to exploit the country's rich genetic resources fell hostage to a disease 'Catch-22' situation. The PNG germplasm could not be moved to other countries for fear of also transmitting the two viruses thought to cause the lethal taro disease *aloma*. To help SPC break the deadlock, ACIAR provided support for Associate Professor Rob Harding, of the Queensland University of Technology, to lead a multinational research effort to characterise taro viruses and develop reliable detection tests.

"Increased knowledge of *aloma* would also benefit growers as the disease is now one of the main constraints on taro production in PNG and the Solomons," says Prof. Harding. "Elsewhere it seems that the two viruses do not

occur together and when only one virus is present, disease symptoms are much milder."

Infected taro samples from 11 countries, including PNG, Solomon Islands, Fiji, New Caledonia and Vanuatu, provided the raw material for the team to clone and partially sequence the genomes of all known taro viruses. The sequence data was used to design diagnostic tests based on PCR (polymerase chain reaction), that were subsequently applied to about 450 tissue culture taro lines held in SPC's TaroGen collection. The cell lines were sent to Brisbane and grown in Australia Quarantine and Inspection Services greenhouses prior to virus testing.

Prof. Harding says that of these, 159 have been indexed for each of the taro viruses according to an internationally recommended schedule in order to facilitate safe international movement of taro germplasm.



Scientist inspects a farmer's taro garden (PNG)

Molecular techniques were also applied to the taro genome itself, allowing the cataloguing of the region's germplasm collections. This work was done by a collaborator at the University of Queensland, Ian Godwin. The researchers mapped genetic diversity in the entire taro germplasm collections from Fiji, Samoa, Niue, Palau and Cook Islands. Another 20 per cent of samples were tested from collections in PNG, Solomon Islands, Vanuatu and New Caledonia.

"From the overall collection of 2206 accessions, 527 were DNA-fingerprinted," says Prof. Harding. "It was evident that most – if not all – of the genetic diversity within South Pacific taros could be sampled from Papua New Guinea and the Solomons. These countries should be

seen as major sources of diversity for genetic improvement programs."

While retaining at least 85 per cent of that diversity, the size of the collection was reduced to about 10 per cent, allowing the core collection to be conserved and used more effectively. In total, 211 accessions were stored as in vitro tissue cultures, primarily at the Regional Germplasm Collection at SPC in Suva, Fiji.

Duplicate collections are now kept at the University of the South Pacific, Alafua Campus, Samoa, with plans to maintain a sample at the International Potato Centre in Peru. Australian researchers and growers in north Queensland have already requested and received accessions from SPC.

In a separate project, ACIAR is helping to develop a broader diagnostic tool for the full spectrum of taro pests and diseases. In conjunction with SPC, Dr Anthony Clark, of the

*continue pg 4*

## Keeping taro safe from pest and diseases.....

from page 3

Queensland University of Technology, aimed to develop a computer-based package to facilitate identification of pests, pathogens and disease symptoms using the Lucid software system.

As part of the collaboration, Dr Clark has already developed an experimental Lucid 'key', a set of questions that drives the diagnostic process, designed to help field extension officers and research staff make reliable diagnoses.

The software package is undergoing a 12-month testing process to ensure scientific accuracy and user-friendliness. The system is also designed to interlink to fact sheets with information about appropriate pest-management strategies. Once completed, the diagnostic package will be delivered to SPC who will be responsible for updating the tool and training staff.

Dr Clark relates the need for such a broad diagnostic capability to changes in the way taro is farmed. "Traditionally in Papua New Guinea, an area would be cleared and taro cultivated for one or two years exhausting the soil, at which point the farmer would walk away for 10 or 15 years," he says. "That allows any build-up of taro pests and diseases to die out. But the trend now is for more intensive, continuous cropping with less inter-planting and biodiversity.

"That creates the same problem intensive farming experiences anywhere: the more intensive the agriculture, the greater the problem with disease and pests."

**Source:** Australian Centre for International Agricultural Research. (ACIAR) Autumn 2006. Copy of the report can be obtained by contacting: The Editor, Partners in Research for Development, ACIAR, GPO Box 1571, Canberra ACT 2601, Australia. Email: [comms@aciar.gov.au](mailto:comms@aciar.gov.au)

## Fiji breadfruit in high demand

Based on Fiji Times reports

**F**iji's breadfruit is in high demand, both in local and overseas markets, says local businessman Surendra Kumar.

The Agriculture Ministry's Quarantine Division revealed that close to six tonnes of breadfruit was exported overseas last year.

Mr Kumar, the director of Mahen's Export, said there was a very strong demand overseas for quality breadfruit.

He said the taste and quality of Fiji breadfruit was highly preferred in overseas markets.

Mr Kumar said Fiji's tropical climate gave the fruit its best quality and taste.

"Estimated export for this year is around six to seven tonnes," he said.

Mahen's Export buys the fruit at \$1 a kilogram at the farm gate and exports at \$1.80-\$2 a kilogram.

Quality Controller of Food Processors (Fiji) Ltd representative, Sangeeta Prasad, said they faced a shortage of breadfruit due to the increase in demand for canned breadfruit overseas.

Ms Prasad said they needed one to two tonnes of breadfruit a day for processing.

FPL supplies canned breadfruit to Australia, New Zealand and Canada.

Farmers from Sigatoka, Verata and the Tailevu area are mostly supplying the breadfruit to the processing factory.

Senior Agriculture Officer, Lautoka, Rajesh Prasad said farmers who wanted to supply fresh breadfruit to exporters needed to register their farm under Bilateral Quarantine Agreement (BQA).

"This is to ensure that they adhere to the quarantine and export requirements. There are 20 different varieties of breadfruits in Fiji but only two varieties, Uto Dina and Bale Kana are currently being exported," he said.

Mr Prasad said apart from fresh exports, breadfruit was also vacuum packed to help preserve the fruit for longer.

He said fresh breadfruit has to be treated under a high temperature, forced air treatment before it could be exported.

He said the Agriculture Ministry encouraged farmers to grow more breadfruit to meet the increased demand overseas. The ministry is also working closely with exporters in supervising the spraying of breadfruit trees to control pests. Breadfruit also lasts longer if grilled over an open fire or in a lovo and is often cooked in many ways.



*One variety of Fiji grown breadfruits. The fruit at its early stage*

# Fruits of forest farmed

By Roger Leakey

Submitted by Nicks Maniha - ALO PNG

Many non-timber forest products such as fruits, nuts, medicinal products, fibres and gums, which have been traditionally collected from forests, are now being grown by farmers for domestic use and sale.

They generate income for poor households when sold in local or regional markets. When used domestically they provide valuable nutrition and health products.

The agricultural revolution had labeled these products of minor importance. Nevertheless, in many places around the world, rural people know the value of species that provide many of their daily needs for everyday products.

About 1.5 billion people (24 per cent of the world's population) are thought to use non-timber forest products, indicating that perhaps they are not so minor after all.

As forests have been cleared in areas with high population density, subsistence farmers have initiated their own silent revolution and started cultivating and domesticating these useful plants – species such as marula, dammar, shea nut, African palm and galip or ngali nut.

To distinguish them from other resources extracted from natural forests, these plants are now recognized as new crop species, providing agroforestry tree products.

In acknowledgment of the importance of these products, domestication programs have been initiated for a number of species in several eco-regions of the tropics. An important approach has been participatory domestication, which involves local communities in selection and improvement to capture their traditional knowledge and, in particular, their knowledge of variation in important traits.

This process is based on measuring tree-to-tree variation in fruit or kernel shape and size, properties of the tree products as food additives and sensory (taste and smell) properties of the tree products, targeted at specific market opportunities.

ACIAR has been involved in two projects on indigenous nuts in the Pacific region. Richard Pauku recently submitted his PhD thesis, undertaken with support of a John Allwright Fellowship, on domestication of pau and Tahitian chestnut in the Solomon Islands.

The other project involved galip/ngali nut in Papua New Guinea and the Solomon Islands. Domestication of high-value and multipurpose tree species is a key element of ACIAR's forestry strategy for Papua New Guinea and the Pacific. The forestry program also manages domestication

projects on sandalwood in Vanuatu, and walnut, callophyllum, taun, sandalwood and other species in Papua New Guinea.

This global initiative to domesticate the indigenous trees producing these agroforestry products enhances opportunities for subsistence farmers to generate income to meet their needs for food, medicine, children's school fees, agricultural inputs and other daily needs.

In this way it contributes to global efforts to meet the UN Millennium Development Goals. However, for this to become a reality, it is essential that domestication works in parallel with market development. This combined focus is a specific aim of ACIAR's galip or ngali nut project, as a number of previous attempts to promote this species have failed due to differences in supply and demand.

Ideally, initiatives like this involve partnership with

commercial companies, but this raises the issue of ensuring indigenous communities are the clear beneficiaries.

The participatory domestication process empowers communities to protect their traditional knowledge, but in many developing countries the legal instruments for them to protect intellectual property rights, for example by the registration of Plant Breeders' Rights, needs either to be enacted or enforced.

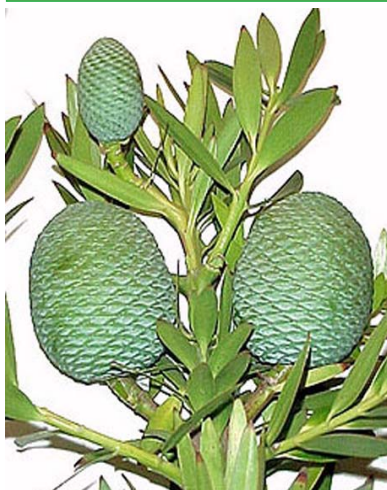
Thus, if the overall development aims are to be achieved, what starts as a biological study has to be integrated with commerce and policy, and also training and skills development.

Professor Leakey is head of the Agroforestry and Novel Crops Unit, School of Tropical Biology, James Cook University, Cairns, Australia.

**Source:** *Australian Centre for International Agricultural Research. (ACIAR) Autumn 2006. Copy of the report can be obtained by contacting: The Editor, Partners in Research for Development, ACIAR, GPO Box 1571, Canberra ACT 2601, Australia. Email: [comms@aciar.gov.au](mailto:comms@aciar.gov.au)*



*Fruits of the marula plant. (Internet images)*



*A cone-bearing branch from the dammar pine or Queensland kauri (Agathis robusta). The images may not necessarily relate to the article. However, the intention is to give the readers a closer idea of the particular forest plants the article is about.*

## Fiji hosts breadfruit symposium

Based on Fiji Times reports

**B**readfruit is seen to have the potential to boost food security and income generation.

This is also confirmed by Aleki Sisifa, the director of the South Pacific Commission's Land Resource Division at the recently held breadfruit symposium in Fiji. He said, breadfruit was under utilised for food security and income generation.

He also said this was due to the low priority from governments and research institutes.

Mr Sisifa was addressing the first international breadfruit symposium to be held in the Pacific. The symposium, which started yesterday, has attracted participants from as far as Sri Lanka, Trinidad, Jamaica, Nigeria, Tanzania, Ghana, Benin and Seychelles.

It also has participants from the Federated States of Micronesia, Samoa, Tonga, Vanuatu, Tuvalu and Fiji.

Mr Sisifa said breadfruit was also under utilised because there was limited knowledge of its genetic diversity and how best to use that diversity.

Mr Sisifa said the symposium was fitting, as breadfruit originated from the Pacific.

He said breadfruit was most extensively used in the Pacific.



Breadfruit chips

The symposium aimed to increase awareness about the importance of breadfruit in food systems in the African, Caribbean and the Pacific.

It also aimed to open up opportunities for a more diverse use of breadfruit through sharing information and establishing research and development priorities.

Mr Sisifa said in the past three decades, there had been an awakening to the potentials of increasing the food supply across the Pacific by more planting of selected varieties of seedless breadfruit.

He said breadfruit was the main staple crop in many Pacific Island countries, particularly on the atolls.

## Strong political support needed to strengthen national food security programs

Submitted by Nicks Maniha, ALO PNG

The up scaling of the Special Programme of Food Security (SPFS) to a national programme will require the Government's commitment and funding support. Food and Agriculture organization (FAO) food security officer, Mr Fintan Scanlan, said this during the two-day workshop to discuss the proposed up scaling of SPFS into a National Food Security Programme.

He stressed that the National Agriculture Development Plan must be approved and put in place to ensure the facilitation and implementation of the national food programme. Food and horticulture is one of the priority programmes that have been identified in the agriculture plan.

Mr Scanlan told the workshop that with total government support, the success of the national programme also depended on the level of cooperation of other stakeholders including the private sector and non-government organizations. He emphasized that the government must take a leading role in providing funding together with matching funds from donor agencies and others.

He said the proposed up-scaling look promising for PNG due to abundant natural resources, the agro-climatic zones, unique long-term access to micro-finance and access to private sector and civil society to aid production, processing and marketing.

Mr Scanlan said the up scaling focus was now on countries with strong political commitment. PNG is among more than 40 countries that are being considered for up scaling, however, the overall success will depend on the support from the government and stakeholders, he said.

The SPFS has been piloted in Morobe province for three years and has made a significant impact on improving farm household lives through increases in food production and farm incomes. The workshop was organized to identify major food security issues and discuss the implementation of the upscale food security programme.

It was proposed at the workshop that a national multidisciplinary team is set up to formulate an action plan; a national inter-ministerial coordination committee be formed; an inter-ministerial technical coordination committee be formed with representation from stakeholders including donors, private sector and NGOs.

# Noni sell as a crop

Submitted by Nicks Maniha,  
ALOPNG

The noni fruit is now a dream cash crop for farmers and locals in Papua New Guinea after scientific research has assured world market for the high quality noni juice in the country, thanks to General Fruits (GF) Co. Ltd.

The Japanese company, General Fruits has started purchasing noni fruits in and around Lae from medium to small sized farm holders after passing one of highest standard of noni examination given by the Japanese Quarantine Office.

GF Chief of operations and leading scientist Dr Justin Ondopa told the *National Newspaper* recently that GF has been continuing research on noni fruits in PNG since last year under the assistance of the Department of Agriculture and Livestock and Morobe Provincial Government to analyse the substance and quality of the noni juice in the country.

Dr Ondopa said the outcome of

the research has helped the company to develop a unique and special technique to produce high quality noni juice in the country which has helped PNG to get approval from some major food and beverage companies in Japan, China and the United States.

“We have already secured our market in Japan, China and United States and we are also negotiating with some in South Korea, and Europe,” Dr Ondopa said, adding also that PNG noni is organic and quality assured.

He also said that soil around noni trees were taken for tests at the GF headquarters in Tokyo until the quality was assured and the approval was officially granted.

“We believe that this new crop will bring more income to small farmers and will improve the agriculture sector which will boost the economy of the country, he said, adding that creation and expansion of noni farm was highly

encouraged for anyone who would like to join in the great opportunity.

Noni is not a seasonal fruit but is a sustainable crop that we are confident that you can harvest all year around.

A farmer can earn K300 to K400 per fortnight,” Dr Ondopa said. He said GF was processing noni at their Malahang Industrial Centre plant where 100 and 60 litre containers weighing 2 tonnes were exported on January and February this year, adding that GF was looking forward to export another 15 tonnes by this March.

Dr Ondopa also made the call to farmers to plant noni on dry soils with no other competitive plants and with extensive sun light that will help the crop to produce high quality noni juice for a better market.

“We do not need chemicals to plant noni trees, we want the organic juice from noni,” he said, adding that GF had ground crews who were carrying out educational awareness programs for farmers on request.

## Glassy winged sharpshooter expert helps local authorities

Submitted by Noo Tokari, ALO Cook Islands

An American expert has come to the assistance of the Cook Islands, Ministry of Agriculture in the campaign to stop an outbreak of the Glassy Winged Sharpshooter (GWSS) insect.

Local Entomologist Dr Maja Poeschko says the current situation was discussed with visiting Agricultural Commissioner Dr Mar Mutz from California.

“Dr Mutz is on holiday but offered her help when she heard about our discovery of the GWSS,” says Dr Maja.

Dr Mutz is supervising the monitoring programme for GWSS in parts of California.

Dr Maja says that after Dr Mutz accompanied her on a field trip on Rarotonga, Dr Mutz suggested an island wide survey as the next step in the prevention of an outbreak of pests.

An eradication programme using insecticides is not recommended with

the current issue of the chemical Reslin used in the past to spray for dengue carrying mosquitoes.

Dr Maja says an island wide monitoring programme using yellow sticky traps is planned to find out how far the pest has spread.

“The traps will be set up 1km apart along the main and back road,” says Dr Maja.

A proposal will be forwarded to the Secretariat of the Pacific Community (SPC) in Fiji to source the traps.

Dr Maja says that some of the GWSS specimens will be sent to New Zealand’s Ministry of Agriculture and Fisheries for *Xylella fastidiosa testing*, the bacteria that causes Pierce’s disease on

grapevines as the GWSS is a vector of this disease.

The local breeding site of the GWSS will be surveyed on a regular basis in order to collect more specimens and find more egg-masses.

Meanwhile if you think that you have seen this pest in your garden, you can call Dr Maja Poeschko at the Ministry of Agriculture who will then come and check your garden for the pest.



GWSS adults

# Youth explores the wealth of bamboos

**F**ourteen young men from a Tailevu village are learning the art of designing and making furniture out of local bamboo.

The Indonesian Embassy, which organised the workshop, is impressed with the quality of local bamboo and is helping a local businessman Usaia Korodrau look for markets locally, for the products.

The workshop started in November last year after Mr Korodrau approached the Ministry of Forests and the Indonesian Embassy with the idea of using bamboo to make furniture.

“In 2000, I went to China to attend a workshop on how to design and use bamboo and last year the Indonesian Embassy facilitated a workshop where I learnt the art of creating designs and the actual manufacture of the items,” he said.

The Embassy’s Second Secretary, Robert Sitorus said according to experts from Indonesia, Fijian bamboo was of the strongest quality and furniture made from it would be durable.

He said the workshop participants, aged 19-25, were looking at blending designs from Indonesia and Fiji.

Mr Korodrau said the youths worked with him at the workshop at his home in Vusuya Village, Nausori.

“These youths were unemployed but they have a lot of talent for the work and after attending the workshop by the Indonesian Embassy, their talents have been enhanced,” he said.

Items made by the team include trays, sofa sets, coffee tables, a double bed, chairs, lamp shades, baskets and mirror holders.

Mr Korodrau said he hoped to get the products into the market by the end of April. He said once the products were launched in the market, he would be able to employ the youths.

## Fiji Times Report



## SPAN networks with RIC

**S**PAN has established closer working relations with an organisation in Papua New Guinea also working towards the dissemination of agricultural information.

The Rural Industries Council (RIC) is a body heavily involved in promoting the agriculture sector as a very important and sustainable source of revenue for the national economy apart from its rural significance.

The council was incorporated in 1990 under section 7 of the Associations Incorporation Act.

It comprises about 30 major agriculture companies and government agencies including the Department of Agriculture and Livestock (DAL).

Member organizations (see member list) that are commercially driven are involved in a wide range of agricultural activities including livestock, forestry, cash crops and fresh produce while government agencies provide training and expertise.

Some of the RIC’s objectives are:

- to promote the agriculture sector in the country.

- promote and protect the common interests and general welfare of member organisations

- make representations from time to time, to the proper authorities with regard to the laws and regulations or any proposed laws or regulations directly or indirectly affecting rural industries.

- make representations to the national parliament or to any other authority or official body with regard to all matters deemed by the association to affect the interests of members and to call public attention from time to time to all matters which may be deemed important and in the interest of the public.

An example of an issue that was of national interest to the RIC was the 2007 national budget.

The RIC was pleased with the national government for allocating K40 million of the windfall revenue to support the National Agriculture Development Plan (NADP).

*continue pg 9*



# SPAN networks with RIC.....from pg 8

The continuation of the tax incentives which were introduced in 2004 and the increase in the infrastructure tax credit from 1 % to 1.5 % is another positive development which the council has applauded.

Not only do member organisations benefit from the visions of RIC but also individual farmers and groups at the village level.

Subsistence farmers and community groups in many parts of the country have benefited from the RIC network.

This has been through the numerous training and extension programmes which some of its members have conducted and continue to do so.

For instance Fresh Produce Development Agency (FPDA) which is a member of RIC, recently taught a women's group in the Western Highlands province how to produce compost for gardening using animal waste and leaf.

These women normally use artificial fertilisers which they buy from stores.

The front page of the RIC newsletter

## “Sharpshooter” bug is a bio-security threat

Submitted by Noo Tokari, ALO Cook Islands

A nasty new pest known as a “Glassy Winged Sharpshooter” has been discovered in Rarotonga – causing alarm among quarantine services in both the Cook Islands and New Zealand.

The insect is believed to have come from Tahiti, French Polynesia, in plants smuggled into Rarotonga.

The ugly Sharpshooter is known to feed and reproduce on more than 300 host plants including trees, crops and ornamentals such as hibiscus, gardenia and papaya.

It is also known to transmit the serious “Pierce’s” disease of grapes and also the disease has not been recorded in French Polynesia, New Zealand officials are very concerned about a possible incursion from Rarotonga to New Zealand and a threat to the lucrative wine industry there.

Local Ministry of Agriculture Entomologist, Maja Poeschko says an adult specimen of the at first unknown leafhopper was discovered feeding on a small flamboyant tree in Nikao on 3 March 2007.

The insect was caught, mounted and photographed for identification. A second adult was discovered two days later at the same location on hibiscus,

but it escaped.

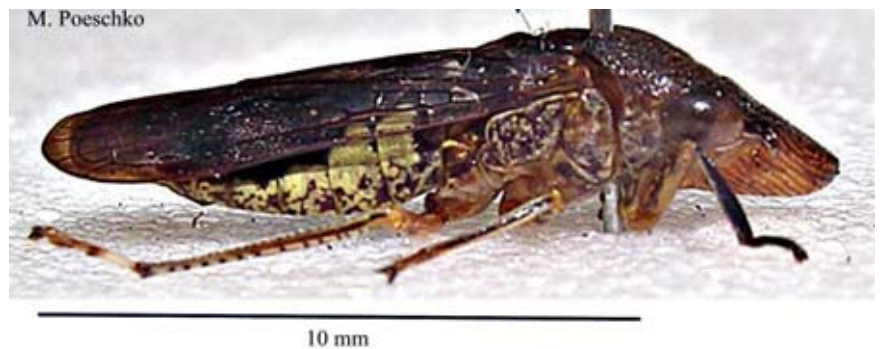
Dr Poeschko provisionally identified the specimen as “*Homalodisca vitripennis*” or “Glassy Winged Sharpshooter”, but for confirmation sent photos and eventually the mounted specimen to a Ministry of Agriculture, Fisheries and Forestry (MAFF) Entomologist in New Zealand Peter Maddison. Photos were also sent to Secretariat of the Pacific Community (SPC) Entomologist Sada Nand in Fiji.

Scientists at MAFF’s investigation and diagnostic centre in Auckland, New Zealand have this week confirmed the specimen is a female Glassy Winged Sharpshooter.

Dr Poeschko said yesterday the population of the sharpshooter appears to be very low at present, But an outbreak could be expected in the near future.

Agriculture authority’s are now liaising to work out a strategy including possible bio-control programme and a public awareness campaign.

Cook Islands Quarantine staff will increase airport security and randomly search passengers arriving from Tahiti.



# Pig quality improves in Cook Islands

Submitted by Noo Tokari, Cook Islands

The first offspring from imported breeding boars and sows destined to become breeding stock in Rarotonga and the outer islands.

The Ministry of Agriculture’s aim is to spread the benefits of the breeding programme around farmers on Rarotonga and the outer islands.

In June last year, 10 six-month old pigs – five boars and five sows – were imported from New Zealand as a stock improvement project.

The plan was to use these animals for breeding stock as well as crossing them with local breeds to improve growth rates and meat quality.

Chief Livestock Officer Tiria Rere says that any pig farmer who wants local sows to be serviced by the imported boars may contact the farmers who were given the imported animals.

Also, those who want piglets from imported breeding sows, may contact the farmers who were given the imported sows. Rere says that payment for servicing the sows, or for piglets born by the imported sows, is for each farmer to sort out with those who own the imported animals.

The farmers who received the

imported animals are Vaitoti Tupa (boar) Matavera, Tupou Faireka (sow & boar) Tupapa, Dr Tereapii Uka (boar) Titikaveka, Eddie Matenga (sow) Titikaveka, Walter Marearai (sow) Titikaveka, Charlie Brothers (sow & boar) Titikaveka and Tom J Marsters (sow & boar) Arorangi.

Agriculture ministry staff ask pig farmers to make use of the improved breeds now available in order to improve the performances of their animals, whether for home consumption or for sales.

Inquiries can be made to the Livestock Division at the Ministry of Agriculture.

# Keen Interest in Citrus

Submitted by Noo Tokari, Cook Islands

With 900 new citrus seedlings already pre-sold, it was no surprise that more than 60 people attended the citrus field day Tuesday 13<sup>th</sup> March in the morning to see and learn as much as they could about citrus management (pruning, proper pest and disease husbandry etc).

The initiative by the Ministry of Agriculture, the day drew not only planters but also householders who have just a few trees around the house and want to know more to allow them to get a greater yield from their trees.

Jake Numanga senior says the initiative by agriculture was great and the perfect means of helping the people.

“I have a couple of orange trees from the first lot of trees that was brought in. The problem with people is that they plant the trees but then they don’t know what to do with them in management or how to look after it.

This field day helps give them an understanding of what to do especially with things like pruning said Numanga.

William Wigmore, Director of Agriculture Research said pruning was one of the main issues discussed at

the field day.

He said pruning is vital to ensure proper growth of the tree and has to be carried out each year.

The trees on show during the field day were planted three to four years ago and had never been pruned.

When pruning people need to leave three to four leading branches. The distance between the ground and the base of the branches should be knee high.

The middle branch should be cut to let sunlight in allowing for the additional branches to grow back towards the middle ensuring the proper growth of tree rather than branches heading out in all directions.

People present were able to sample a few of the fruits including other varieties like the Tangelos, Oranges, Navelina, Afourer Delite, Mandarine Satsuma Miho Miyagawa, and Grapefruit Golden Special provided by the ministry.

For those who missed out on the last shipment of trees, there will be another shipment in the second half of the year.

It is expected another 1,100 seedlings will be arriving in that shipment, completing the 2000 ordered by the ministry for this year.

These plants will also be sold at their cost price of NZ\$10 and people can contact the ministry on telephone 29711 for more information.

Brochures on citrus management both in English and Cook Islands Maori were distributed to the growers that were at the field day.

For more on the brochures please see the project division of the ministry for your copy.



**Journal Of South Pacific Agriculture**

JOSPA invites interested authors to submit research work or other related papers to be published in the upcoming volume. Interested authors can be provided with Guide to Authors Instructions upon request made to: JOSPA Managing Editor, USP-SAFT, Private Mail Bag, Alafua Campus, Apia Samoa. Email: ullah\_w@samoa.usp.ac.fj or samasoni\_a@samoa.usp.ac.fj

**South Pacific Agricultural News (SPAN)**

Interested writers are more than welcome to have their articles on agricultural benefits for men, women and youth published in our monthly publication of SPAN. For interested readers are also welcome to register with us and you will receive your monthly copy. Submit your articles or request to receive SPAN to: uspireta@samoa.usp.ac.fj or samasoni\_a@samoa.usp.ac.fj

**QUESTION AND ANSWER SERVICES**

QAS is available to provide stakeholders, students, science teachers with information they require on agriculture. QAS is able to research and distribute information as demanded by its recipients. To fill information gaps, a form is available below to contact IRETA for your informational needs. Further contact can be made with: Research Officer: lautua\_s@samoa.usp.ac.fj

**Information Networking Department**

The Information Networking Department (IND) has a wide collection of grey literature on agriculture and its Regional Resource File (RRF). The community is encouraged to make use of these materials as they have relevant and timely information on agricultural developments. For more information: uspireta@samoa.usp.ac.fj

**Research Department**

IRETA's Research Department has a Selective Dissemination of Information (SDI) service which provides registered member with an ongoing provision of information at the time of issue and availability. IRETA invites those interested in receiving agricultural information to register. Ask for more information: uspireta@samoa.usp.ac.fj

**VIDEOS AND PUBLICATIONS**

IRETA holds a wide collection of agricultural educational videos and books. These materials are made available on request at a cost or free distribution. For more information, contact the following addresses: For videos and publications, write to: uspireta@samoa.usp.ac.fj

**QAS Information Form**

For the latest information on any aspects of agriculture, fill in the form below and send it to IRETA

Name : \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_ Fax: \_\_\_\_\_

Give your information required: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Purpose you need the Information for:

Personal     Teaching     Student     Research     Business

Other \_\_\_\_\_

**Please contact the following address:**  
 Director, Institute for Research, Extension and Training in Agriculture (IRETA)  
 Private Mail Bag, APIA, SAMOA, ph:(685) 21882, fx: (685) 22347  
 Email: uspireta@samoa.usp.ac.fj

**IRETA Video Request Form**

**Request by:** .....

**From :**.....

**Purpose for video request:**.....

**Video Title(s) Request:**

(Note: You are only allowed up to a limit of five video programs per request)

Video Title	DVD	VHS Tape

**Address:**

.....

**Date of Request :**.....

**Date of Request dispatched:** .....



---

**South Pacific Agricultural News**

Institute for Research, Extension and Training in Agriculture  
University of the South Pacific-Alafua Campus, SAMOA  
Ph: (685) 21882/21671 Fax: (685) 23472  
Email: [uspireta@samoa.usp.ac.fj](mailto:uspireta@samoa.usp.ac.fj)

---