Papua New Guinea has a new technology that allows fast propagation of Robusta coffee varieties.

The Papua New Guinea Coffee Industry Corporation (CIC) Research & Grower Services Division has adapted the RITA technology following a two month training that was held in Montpellier France from September to November. Two staff, Rati Irikati of CIC and Robert Plak of PNG’s National Agricultural Research Institute (NARI), returned skilled with knowledge of the technique and greater heights for Papua New Guinea’s agriculture sector. The training was supported by European Union with counterpart funding from the France Embassy in PNG. Their training mainly involved the use of RITA technology to mass propagate coffee and potato.

RITA stands for Récipient à Immersion Temporaire Automatique in French which means Receiver of Temporary Automatic Immersion System. RITA Technology involves the immersion of matured coffee leaf cells in four different chemical liquid medium so that the cells regenerate into thousands of embryos. The immersion of coffee tissues for at least one minute a day is primarily to induce the production of embryonic cells. The whole process takes up to nine months for the beginning and can be reduced to approximately six months afterwards. Twenty thousand viable embryos per RITA is the bottom limit in terms of production. This is an advantage over the traditional meristem culture which...
New technology for fast coffee propagation

Involves a further multiplication of the generated embryos by manually cutting the suckers from a regenerated plantlet for further propagation. This meristem culture is labour-intensive and expensive, whereas the RITA technique involves less labour but greater production of planting material.

The RITA technique is seen to be good for utilising hybrids with superior qualities that can be multiplied especially for Arabica species for the Highlands of PNG. And the demand for Robusta planting material by lowland coffee farmers will be met through this new method.

The expected results of RITA will have a direct impact on the smallholder farmers in PNG by making available to them elite new planting material or selections in a timely manner. Quality and production will improve through expanded cultivation of these superior varieties. These plants will be disease free at establishment and have a significant impact on agriculture sector in PNG.

CIC Experimentalist, Mr. Irikai explained that the RITA technique is useful to Papua New Guinea’s coffee industry as it will enable the Coffee Industry Corporation to supply Omuru 1 in large quantities.

Samoan lady farmer first to hit Australian taro market

Submitted by Alfred Maesulia, Under Secretary
Ministry of Agriculture and Livestock, Solomon Islands

A Samoan lady based in the Solomon Islands has taken her family business the Solmoa Farm Produce to the heights of being the first to penetrate the Australian market for taro exports.

Upu Kaukui is married to a Solomon Islander and her business started with 800 kg of taro about a year ago and 1200 kg some months later, she told agriculture officers who went to see preparation of her third consignment in Ranadi, east of Honiara.

Late in November last year, she managed to pack three tones of taro from her farm in the Weather Coast of Guadalcanal to be exported to Brisbane.

She is also looking at exporting yam and kong kong taro (karuvera) next year. She said the problem is that some crops, such as yam, are seasonal and they are available only during certain times of the year.

Mrs. Kaukui, said her agent in Australia is her brother.

“Demand from our clients in Australia is beyond the 3,000 kg that we are ready to send on a cargo plane,” Mrs. Kaukui explained.

Solmoa Farm Produce is encouraging farmers to come forward if they have food crops such as taro, yam and kong kong taro.

A local agent who collected taro from the Weather Coast said that more than three tones of taro had come only from two villages. The agent said there were other villages in the weather coast of Guadalcanal which have large gardens of taro.

Villagers, the agent said, were pleased to have access to easy market to sell their produces without going through the hard times to come to Honiara markets.

Meanwhile, Mrs. Kaukui exported some 2,000 taro puddings to the Gold Coast in Queensland, Australia in mid December last year.

Mrs. Upu Kaukui talking to an agricultural officer in a cool room where she keeps her taro, waiting to be exported.
Stay and study at Alafua Campus

Alafua Campus once again prepares to host a number of students who will leave their home countries to pursue further education in agriculture.

The students are from around the region. Their home away from home if they choose, will be the Student village located in the centre of the Campus, and it provides a comfortable residing environment.

The village has 13 Halls of Residence with separate halls for females and males. It is yet to host married students but it provides leisure time facilities.

But the village has regulations which make it best suited for students who are able to adhere and follow the residential regulations. The regulations does not mean it’s a strict boarding block, but it is the concern and the respect of making the village a comfortable place to stay and study.

Students that choose to stay in the Village will have ‘easy’ access to the library, computer labs and farm especially when opening hours are extended to 7.00pm.

Residential students don’t have to worry about preparing meals or cleaning up giving them more time to study. They have the advantage of being able to study in groups and/or seeking assistance from students who have previously taken the course.

Late night study for an exam or assignment can take its toll on your energy - however when living on campus you can just go straight to your room for a rest instead of having to either wait for a bus or catch a taxi home afterwards.
The National Agricultural Research Institute (NARI) has identified the Tamauka Youth Group of Lapeigu, Eastern Highland Province, as a partner for a collaborative research on best management practices for peanuts during the 2007-2008 cropping season.

NARI is working closely with the group and other farming communities to get the necessary tasks done, which included the transfer of improved technologies on peanut farming.

Surprisingly, children from the area were enthusiastic and joined the elders with spades in digging up the earth.

NARI Aiyura officers said the response was an indication of pride the children had in having their relatives and land occupied in innovative development in their community, particularly in agriculture — the source of life in rural Papua New Guinea.

With that kind of enthusiasm and support, NARI researchers are confident about the success of this on-farm research and technology dissemination exercise.

The peanut project, supported by the Australian Centre for International Agricultural Research, began in 2002.

It was undertaken to expedite the supply of improved seed and management technologies to smallholder farmers for the establishment of sustainable and profitable peanut production systems.

The project was also aiming at exploring new avenues to enhance marketability of peanuts and their products in PNG and Australia.

Trukai farms of the Trukai Industries Limited, Ramu Agri-Industries Ltd (formerly Ramu Sugar Ltd) and NARI are working in collaboration with the Department of Primary Industries and Fisheries of Queensland, Australia, to enhance improved production of peanuts in the two countries.

Trukai Farms and Ramu Agri-Industries are focusing their seed village trials in the Markham valley while NARI is doing the same in the Highlands.

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Organic Growers Association propose green waste centre in Cook Islands

Submitted by, Noo Tokari
ALO, Cook Islands

‘There is no such thing as waste, there is some way of using everything,’ it is the belief of the Titikaveka Organic Growers Association (TOGA) and it is why they are determined on establishing a ‘green waste’ centre.

But what is green waste and why do we need a facility to deal with it?

The so called ‘green waste’ is the term for the decaying trees, branches and leaves. We traditionally consider them as rubbish and are burned to clear them out. However, having everything go up in smoke is now seen as a very environmentally-damaging outcome. It pollutes our environment through the release of smoke and gases.

A green waste centre according to a representative from the organic grower’s association will use these materials for other purposes. As well as reducing the danger that smoke and gases impose on the environment.

But the association is looking for solid supporters to enable the establishment of a ‘green waste’ centre which will in turn produce bark chip, compost and fertilizer from these so called green waste. They even hope to use the methane gas emanating from the compost to power generators to use in their proposed centre.

The green waste has many uses, such as bark chip for the decorative purposes; compost to build up the soil; and organic fertilizer for the home garden or market garden for growers.

The waste can be composted down using above ground containers which yields a by-product called compost ‘tea’ or liquid green waste can be used as a foliage spray or even in hydroponics water and the resultant herbs and vegetables would then be organic.

But where will all the green waste come from? They envisage that after cyclone and storm clean ups, people will be assisted to clear away their fallen trees and leaves and the trucks will be looking for places willing to take the rubbish or green waste. This is where the proposed green waste centre will come in handy as it offers an alternative and environmentally friendly solution to getting rid of waste.

Their proposal is quite ingenious and as a starting point, they estimate that the project will need at least $US50,000 to get up and running and pretty much follows their philosophy that ‘there is no such thing as waste. There is always some way to utilize everything.’

Only problem now is trying to find donors that would be willing to provide the seed money with which to turn their dream into reality.
Practising home gardening can bring about lot of benefits as it ensures fresh and regular supply of food (food security) and can also rake in extra cash for the family.

Backyard gardening enables best utilization of land and at the same time one is aware of the health status by consuming the fresh and healthy produce as it is superior in quality.

One such person is Mrs Savita Devi Prakash, a housewife of Waila Covert Avenue who enjoys gardening and has grown a number of crops in her backyard.

“I do organic gardening for fun and as a hobby to pass my leisure time.”

“I have a range of crops in my garden like dalo, yams, dalo-ni-tana, chillies, ginger, tomatoes, duruka, bele, rourou, long bean, tomatoes, pawpaw, passion fruit, citrus, banana, avocado pear and soursop.

Mrs Prakash said that everyday she gets fresh supplies of vegetables for her kitchen and the surplus she sells to the neighbors.

“Through gardening I do a lot of savings and it is also a form of exercise and I am aware that the chemical free vegetables from my garden are safe for my family’s health,” she said

“I am using certified organic fertilizer (Allrock), which is a balanced nutrient for the production of any crops that maintains the friendly environment”.

“To have good quality produce, gardens should be weed-free all the time and watering should be done as required,” she added.

She has a passion for growing flowers, and has a collection of almost all types of palm trees.

Mrs Prakash also grows aromatic plants in her garden to repel garden pests to minimize crop damage.

Mrs Prakash said that the flower, varieties of palms, ornamentals, Christmas trees and other grafted trees brings the beauty to the compound.

Agriculture Extension Officer Mr Chandra Prakash has encouraged others to take up backyard gardening as it has lots of advantages.

“He added that one should ensure good crop nutrition by using organic fertilizers.

A well-established food garden becomes a source for fresh fruits and vegetables all year around and can be maintained well in off-season with good gardening practices.
Low supply, high cost

Blame it on the rain, as the famous pop music group Milli Vanili sings, best describes the vegetable situation in Samoa since November last year.

We could still be grateful for the rain considering our water supplies but on the other hand it has plighted vegetables leaving us with the choice of paying a higher price.

Samoa’s Central Back market survey records that there was a high supply of vegetables in October, come November there was little as the rainy season begins.

The survey revealed a high demand for agricultural produce reflecting a lower supply, offset by increases in the availability of taro, breadfruit, yam and Chinese cabbage. Crops such as taro, banana, taamu and yam increased in supply when compared to November 2006, however, lower when compared to October.

The onset of the rainy season towards the end of the year saw the supply of most vegetables falling, with the exception of Chinese cabbage.

Consequently the prices of many vegetables increased, and when compared to November 2006, the supply of most vegetables were lower and their prices were higher.

In November last year, the supplies of taro palagi and head cabbage tumbled and the availability of tomatoes also decreased, and the prices increased. On the other hand, due to weaker demand for produce such as taamu and cucumber the prices of these commodities also dropped.

On the upside the availability of breadfruit and yam soared by more than threefold and twofold respectively. As a result the price of breadfruit decreased and that of yam rose due to higher demand.

The volume and price of taro and Chinese cabbage also increased along with its price.

The strong demand for some of this agricultural demand was associated with the overall growth in the economy according to the Fugalei Market Survey for November.

Organic coconut oil hits cosmetic market

Based on Radio New Zealand International reports

The second largest cosmetic franchise in the world, the Body Shop will launch their organic coconut oil base products this year according to a Body Shop spokesperson, Nicky Tracey.

She added that the multi national company is excited about its new venture with a community based project in Samoa. Samoa exported an initial shipment of 300 kilogrammes of organic coconut oil to the Body Shop in Britain in November last year.

“We don’t have a lot of community trade programmes within the Asia-Pacific region and the Body Shop, globally, made the decision that they wanted to find an organic coconut oil source and if possible to source it from the Asia Pacific region. We are delighted that we have been able to start working with the community in Samoa.”

However the commitment of the locally based NGO, Women in Business and Development Inc (WIBD) has enable this far reaching trading relationship.

The Body Shop, has over 2,000 stores in more than 50 countries. The Body Shop is the second largest cosmetic franchise in the world. The company, headquartered in Littlehampton, West Sussex, England, is widely known for its vegetable-based products ranging from Body Butter, Peppermint Foot Lotion, and Hemp. The Body Shop has emphasized its support for a wide range of issues around the globe.
Agriculture in a correctional facility

The Lakiemata prison in the West New Britain Province was the host of a two-week training course on cocoa technology. The training conducted by a local company, John Duigu and Associates (JD&A) included the participation of both wardens and the inmates.

The company’s managing director and course facilitator John Duigu said the course had four broad objectives: To use the knowledge and skills learnt in the program as a means to rehabilitate the inmates so that they can become cocoa farmers after they leave the prison; to teach the prison warders the latest cocoa technology and how to prepare and present cocoa courses as part of their prison rehabilitation program; to teach the prison warders the knowledge and skills in cocoa so they too can become knowledgeable cocoa farmers after their formal employment as public servants; and to use the knowledge and skills in cocoa block rehabilitation and new cocoa block establishment.

A technical field staff member from the Cocoa Coconut Institute was approached to assist with the training. Mr Duigu said the course was designed in a way to provide 10% theory and 90% practical.

As part of the practical program, the following tasks were performed: Establishment of a permanent cocoa nursery to raise hybrid cocoa seedlings and hybrid clones for sale and for planting at the Lakiemata cocoa block, budding of about 200 hybrid cocoa clones, rehabilitated an established cocoa block and stick-lined a new block for shade establishment.

All the participants graduated with certificates. Most of the detainees have vowed to become cocoa farmers after they serve their time.

Warders said this was the first time they had attended such a training program at Lakiemata jail, adding that they would become cocoa farmers when they retired.

Mr Duigu said credit should go to the Correctional Services headquarters in Port Moresby, especially to Paija Peave and senior officers and the staff of Lakiemata prison for their forward thinking and planning to make the course possible.

PNG to implement ‘HORTIVAR’ database

Papua New Guinea will now join 83 other countries in implementing a performance database for cultivars of horticultural crops. The online database, known as HORTIVAR, was developed and launched recently by the Food and Agriculture Organisation of the United Nations (FAO). Research and development organisations dealing with fruits, vegetables, roots and tubers, ornamentals, mushrooms, herbs and condiments will be invited to participate in entering datasets of various horticultural crops into the database.

The National Agricultural Research Institute (NARI) will be the host institution in PNG to facilitate this exercise, which begins with a series of training workshops for participating organisations starting in February 2008.

During an awareness seminar at the NARI Head Office in Lae on January 22, 2008, Project Coordinator Mark Tinah said HORTIVAR is a database or information system on performances of horticulture cultivars in relation to environmental conditions and crop cultivation practices.

Mr Tinah said: “This resource is a tool for knowledge management, which serves as a standard methodology for data collection and record keeping,” adding that it is also a powerful search engine for easy retrieval and comparison of information, a standard template for educational purposes, and a gateway to horticulture knowledge.

Participants at the seminar were also told that HORTIVAR has been conceived to serve as a tool for safeguarding information on the field performances of horticulture cultivars.
PNG to implement ‘HORTIVAR’ database

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in relation to, among other things, their resistance to pests and diseases, market requirements and consumer preferences.

Many National Horticulture Research Stations all over the world have carried out a large number of field trials to assess the performance of horticulture cultivars in different agro-climatic environments and applying different cultivation practices. This wealth of information is however not easily accessible because it is stored in different libraries. Furthermore the methodology applied for data recording varies from country to country and sometimes even within the country from one institution to another.

In a bid to store and easily retrieve information data published in technical documents or recorded in field experiments, FAO established the database as part of the World Agriculture Information Centre (WAICENT).

Data registered in the database are “site specific” and therefore the database is geo-referenced and in future can serve for Geographical Information System applications.

Mr Tinah said the training workshops will be conducted throughout PNG covering all agro-regions. Scientists from NARI and other line departments in the agriculture sector will be invited to participate and contribute information on studies or field observations on horticultural crops. The first workshop will be conducted in Lae next month.

At present this wealth of information database is accessible through the Internet on website: http: www.fao.org/hortivar

Containers bring in pests

Submitted by Noo Tokari ALO, Cook Islands

Big and heavy cargo containers have been identified as one of the main carrier of pests from one country to another. This is an issue that the Cook Islands need to be aware of.

It was the cause of a one day workshop conducted by the Ministry of Agriculture. The workshop was about raising awareness on the importance of maintaining the integrity of the environment with border control of pests and diseases.

Nga Mataio, head of Agriculture said the workshop was led by his Quarantine team who were delighted with the excellent turnout of around 20 ‘stakeholders’ who attended the workshop. These ‘stakeholders’ are importers, wholesalers and large retailers whose goods are brought into the country by the container load whether it is from Australia, New Zealand, USA, Asia or wherever.

While it is the responsibility of the sender of the goods to ensure that the paperwork is completed and declared on the ‘other side’, this is sometimes not followed correctly. The need to follow procedure is especially necessary when it comes to quarantine declarations, which has not always been followed correctly.

This has meant that every now and then, a new pest is found clinging the outside of a container or even worse, is if a new pest is found inside the container. Problems have occurred from some Asian countries which tend to have tropical climates like ours with a greater likelihood of pests and diseases than a colder and more temperate climate such as in NZ for instance.

Nevertheless, NZ ‘knows the rules’ with MAF (Ministry of Agriculture and Forestry) working within the system whereas some Asian countries may not have systems ‘as up to date’ as in Australia and NZ.

The workshop is to stress the importance of the stakeholders communicating with their overseas counterparts regarding the need for ensuring pests and diseases are not accidentally brought into the country. It is important to report any ‘moving’ things which may be found in containers.

While it is the responsibility of the exporter (supplier to the country) to ensure the goods are pest and disease free, Agriculture do call upon the services of a local pest controller, Henry Wichman to treat the container. It is important to ‘keep an eye’ on matters in order to minimize potential problems.

Any strange pests are sent off to resident entomologist for identification and advice on how best to minimize any problems arising eg the small snails found on cargo transiting from Samoa to NZ and of course the ‘sharpshooter’ winged insects found recently.

Mataio indicated that tougher new legislation is being prepared by Crown Law and is likely to be introduced within 6 months in Parliament after the usual round of going through Cabinet and to select committees for public consultation etc.

The workshop was to inform the importers that while Agriculture recognizes that the Cook Islands importers are the customers, nevertheless, in the not too distant future, it is not unlikely that the importers may be held to account for any slip ups by the exporters.
Capitalising on taun fruits

A Papua New Guinea indigenous tree fruit, locally named “taun” or “ton”, has the potential to become a lucrative export earner for the country if it is domesticated and commercialised. Research is currently underway at the Lowlands Agricultural Experiment Station of the National Agricultural Research Institute (NARI) at Keravat to successfully clone and propagate short, early-bearing and high-quality fruit-yielding trees to serve this purpose.

Taun, scientifically known as Pometia pinnata, is a large tree up to 45m tall. It grows naturally in forests throughout the PNG lowlands. While the hard timber is widely used for buildings and as firewood, its fruit is a good source of food. With over eight different varieties, PNG has by far the highest diversity of taun in the Asia-Pacific region which, if cultivated and processed, can generate a healthy income as an exported product.

NARI Agronomist Mathew Poienou, who is working with the fruit, said at present taun is only being used in the region as a timber commodity. However Mr Poienou said its fruit is also of value and NARI is currently working on domesticating and commercialising taun as part of the Institute’s drive to develop indigenous PNG nut and fruit trees as alternative export-viable crops.

The tree fruit’s domestication will require the identification and collection of best varieties of which seedlings or cuttings would be used for cloning and desired clones propagated and distributed to farmers. In the last few years, taun fruits have been collected from selected trees and evaluated for quality characterisation such as fruit size, texture and taste.

Research is yet to determine which taun variety or varieties will produce the best clones. Mr Poienou said NARI is the first institution to attempt the propagation of taun, stressing that the results achieved could also be applied to other potential income-generating fruit and nut trees.

Taun grows in lowlands and lower montane forests, and from the coast to 700m above sea level. The tree fruit is commonly found in New Ireland, East New Britain, West New Britain, Manus, North Solomons, East Sepik and other provinces in the lowlands.

Pictures used for this article has been extracted from the Species Profile for Pacific Island Agroforestry (www.agroforestry.net) with particular information on Taun or Pometia Pinata prepared by Lex A. J. Thomson and Randolph R. Thaman.

Pometia Pinata is also known as: dawa, tawa (Fiji); kava (French Polynesia); kava, tava (Samoa); igi, ako, dawa, tauna (Solomon Islands); nandao (Vanuatu); lychee sauvage, le pomet (pometier), bois de pieu (French); oceanic lychee, island lychee (English); taun (PNG); tava (Cook Islands, Niue, Tonga, ‘Uvea and Futuna)

Fruits and leaves, photos: L. Thomson

When presenting his Masters thesis titled “Domestication of Taun in PNG” at the University of Queensland last year, Mr Poienou pointed out that not much was known about the propagation of existing taun species. But NARI has identified grafting and cuttings as two possible methods of propagation.
A late Christmas wish...

Christmas is a time when families meet other family members after missing each other for months – even for years. And usually something special is happening back in the villages. It may be a special feast or a special food prepared only for that occasion. Although Christmas has never been a part of the ancient Pacific Islands culture, this is now the acquired Pacific Islands style.

Yes, Christmas is catching up on us. You might have planned all through the year to achieve a particular activity in your work programme but unfortunately it’s time to take a break. This is also true to many hard working farmers in the Pacific region who just cannot fulfill their goals in 2007. Working life is like this. Things work well sometimes and shortcomings are also expected.

This year is a tough year for some countries in the region. We have heard about governments going through hard times due to political turmoil. And maybe senior public officers, some could be in the agriculture sector, had lost their jobs and may not be able to enjoy their Christmas as it used to be.

We must give high regards for leaders in the agriculture industry in our countries who, all through the year, have tirelessly kept things moving forward in spite of difficulties.

To agriculture Ministers in Agriculture Departments in the region, you have done a great job for your countries. May you enjoy this Christmas with your good families. Be rest assured God’s blessing is yours this Christmas.

To all our countries’ Permanent Secretaries or Secretaries, without your foresights, your officers could not do great things which will make your countries become a spotlight at the passing away of 2007.

To the rest of us: agriculture workers and farmers, without you and me these great things may not happen.

If we have not done enough this year, 2008 is coming up. Let’s forget any failure this year and make 2008 a year of more challenges.

To Aid Donors who have made things easier for the livelihood of many Pacific Islanders, I wish to thank you and your governments. We have seen improvements through many small and large agriculture projects in our countries. Without your assistance, we may not be what we are this year. We are looking forward to your continuous assistance in the coming year. Sorry if your engagement through various activities in our countries will not allow you to spend this Christmas with your loved ones in your countries. Pass our Christmas Greetings to your families.

We must also thank the Director of the regional organization, IRETA, for keeping member countries informed of events and activities in the region through the South Pacific Agricultural Newsletter (SPAN) and Journal of South Pacific Agricultural (JOSPA). Thanks to IRETA’s Director, Mr. Mohammed Umar.

Through the hard work and tireless effort of the IRETA these means of communications have continued to this very year. My message to our Donors is for them to refocus their attention to the Agricultural Liaison Officers’ Network which is not active as before because of lack of funding.

For this Christmas, remember a song, “Please, Daddy Don’t Get Drunk this Christmas”. If you happen to get drunk this Christmas, don’t overdo it because 2008 is just around the corner.

A Merry Christmas and Prosperous New Year 2008 to you all.
QAS Information Form

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

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