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From dentistry to tomato farming



George Riifalu at his tomato farm in Henderson.



Riifalu shows the outcome of six years of hard farm work.

Directly on the other side of the Henderson International Airport terminal, beyond the runway's perimeter fence lies a field teeming with luscious tomatoes of different shapes and sizes.

It's a farm that not many who use the airport are aware of, yet it provides much of Honiara's tomato supply to the main market.

Since 2006, self-taught farmer George Riifalu has been growing tomatoes. It's a passion that the former dentist has cultivated into a promising business venture.

For Riifalu the path into farming was not straightforward.

"I've always had an interest in farming. At school I was very keen to learn and take part in farming. I took agriculture from form three to form five."

But it was another profession, that captured Riifalu's attention after leaving school and he travelled to New Zealand to study dentistry.

He returned home and worked in the capital for a number of years but with the ethnic tension brewing, Riifalu left for New Zealand in 1999.

In Auckland he joined an old university friend and entered into private practice.

"It was a great experience working with the latest technology at hand."

Six years later Riifalu returned home in 2006, after his mother passed away. It was then that he revived his interest in farming and settled on his uncle's land near the airport.

"I brought back a lot of seeds from New Zealand and started trialing them. In 2007 I started working with Asian Vegetable Research Development Center (AVRDC)."

Riifalu says his interest in tomatoes and fruit trees stems from the fact Solomon Islanders are overreliant on imported food.

"If you look at what we are eating everyday, it is all coming in from overseas. It's expensive and unhealthy."

"I farm for my family, we eat what we grow and we make livelihood from the fruit as well."

With the support of AVRDC and the Ministry of Agriculture and Livestock, Riifalu's farm has become one of the biggest

trial centres for tomatoes in Honiara. The outcome of the trials on tomato varieties on his farm will directly benefit farmers by providing information on the best performing varieties and growing methods.

"Nine varieties are being trialed from a plants chosen by MAL and AVRDC. Right now we are on the final trial before the best varieties are selected and distributed to farmers."

Out of the nine varieties growing, Riifalu says he has identified four that he will use to grow on his farm after the completion of trials.

The trials he says have also shown the weakness of tomato seeds sourced locally

"It hasn't grown well, at all," said Riifalu.

One of the main challenges he has faced has been the vulnerability of the tomatoes to fungal disease.

"It's because this land is prone to waterlogging, because of its closeness to the Lunga River and the run-off from the airport."

He says the use of NPK has combatted the disease well and eradicated any signs of the disease.●

Adaua Secondary School's 10,000 taro plants

Adaua Secondary School in North Malaita has set the standard in growing and promoting local crops.

The school's farm is set to harvest 10,000 taro plants in October as part of its drive to improve the school's food supply, earning income through the sale of surplus crops and as a demonstration on growing local foods.

The school initiative began with planting in January and February through the rainy season, with farm staff and students working together to set up the school taro garden.

School farm manager Leonard Gore praised the support of students and the school community.

"It was hard work. The big challenge was in finding planting material. We ended up buying suckers from farmers from the surrounding area."

"The school spent over \$4,000 to buy quality planting material. In some instances we even used shell money (traditional Malaita currency) to buy suckers. This was because the school had shell money that some parents had used to pay for school fees."

The labour for the taro garden came from school staff and 347 students who worked tirelessly to plant around 8 hectares.

"We had three working lines that worked two hours each to get the taro garden completed."

Apart from taro, the school is also growing tomatoes, cabbage, vegetables and watermelon. But taro is the farm's main crop.

"We chose taro as our king crop because we have seen that taro grows well in soil at Adaua and the surrounding areas. Further, we saw that taro has a good market, it can be sold locally and it has potential for an international market. Locally it fetches a good price at the market."

Come October and school is set to harvest the 10,000 taro plants, much more than the school needs for its kitchen. With three months to go to harvest time, Gore was in Honiara studying the local markets and searching for



Adaua School's 10,000 plant taro garden.

possible buyers for the school's surplus crops.

"So far I have found some interested buyers but the door is still open for others who may want to buy taro from Adaua."

With the lessons learnt from its first crop the school is planning an even bigger operation for next year, with three gardens.

"We plan on planting gardens in three-month cycles during the year so by next year we should have a total of about 30,000 plants."

For Gore, Adaua's initiative is something that can be replicated in other parts of the country.

"For schools out in the provinces this can be a good way to feed their students with healthy local food and also teach them how to grow it."

"It's also much healthier than imported foods and when they know how to grow their own food, it sets them up for life."

Gore has suggested the establishment of a network with urban schools where harvested crops from schools in the provinces can be sold to schools in Honiara for their food supply.●

Stakeholders set up National Oil Palm Growers Association

Oil palm growers, resource owners, smallholders, investors and exporters have come together with the support of the Ministry of Agriculture and Livestock to set up the first ever National Oil Palm Growers Association.

An interim committee was set up during the National Oil Palm Seminar in early August, with the aim of expanding the industry and to represent the interest of stakeholders.

Members of the committee include representatives from Guadalcanal Plains Palm Oil Limited (GPPOL), representatives from the Government oil palm projects in Aultua Basin, Waisisi, Vangunu, resource owner associations, smallholder growers, investors and MAL officials.

The committee chairman is Guadalcanal Plains Palm Oil Limited, Field Manager, Craig Gibsone, deputy chairman is Pastor Peter Korinihora, secretary is Greenta Tome, and observers are MAL's National Oil Palm Coordinator, George Boe and MAL Under-Secretary (Technical), Jimi Saelea.

One of the Association's main tasks will be to attract investors to invest in the oil palm industry and set up business in Solomon Islands.

MAL Permanent Secretary Frank Wickham says MAL will support the Association to work towards expanding the industry.

"The Government can only do so much, so it is imperative that the private sector take the lead in expanding the industry and taking it forward."

GPPOL's Andrew Kerr says a national association will provide a united front for the industry and will give potential investors confidence in doing business in Solomon Islands.

The Association will also be at the forefront of the industry dealing with the Government on industry issues such as the allocation of resources.

Among the issues that the Association is working on



Interim committee members of the first National Oil Palm Growers Association.

include the search for a development model best suited for Solomon Islands oil palm industry.

While the only operational oil palm project in the country is GPPOL, the size of the operation and the millions of dollars invested in it make it hard to replicate in other parts of the country.

At the National Oil Palm Seminar, stakeholders suggested the way forward for Solomon Islands is the investment in smallholder operations.

The committee will work closely with Malaysian oil palm entrepreneur Velayuthan Tan to develop a model for smallholder operations suitable for Waisisi and other parts of the country.

The Association has also been tasked with drawing up a terms of reference for a technical and financial feasibility study.

"The committee intend to have a full technical and financial report including risk consideration measures and obligations ready by the end of September 2013," said Wickham. ●



National Oil Palm Coordinator George Boe at the committee meeting.



Raynick Aquila of Vangunu and Pastor Peter Korinihora of Waisisi at the committee meeting.



Community begin planting oil palm seeds for the Waisisi nursery.

Snapshot: Waisisi Oil Palm

The oil palm industry has taken root in Malaita with the planting of the province's first oil palm seedlings at Wairokai, under the Waisisi Oil Palm Project.

The seeds were put into nursery in late July, following their arrival from Papua New Guinea.

National Oil Palm Coordinator, George Boe says the planting of the nursery was a historic occasion for oil palm development in Malaita.

The first 10,000 seeds will supply oil palm for 80 hectares of land.

Once completed the Waisisi Oil Palm Plantation will cover 4,000 hectares. So far around 2,000 hectares of land has been registered and surveyed. ●



MAL officers transport oil palm seeds to Waisisi.



Community members come together to work on the nursery.



Waisisi Project Manager Ishmael Hohania gives planting instructions to the community.



The planting of the first oil palm seeds.

Waisisi's Malaysian influence

Velayuthan Tan may be thousands of kilometres from his home in Malaysia, but the oil palm entrepreneur says he holds Solomon Islands close to his heart.

Tan is at the centre of oil palm development work taking place at Waisisi in Malaita.

His role, he insists is not to spoon-feed resource owners but to get them to develop the land themselves and to sell their produce to investors and businesses.

Oil palm he says can work in Waisisi as long as it is developed in a way that is suited to Solomon Islands.

"Large style plantations will not work, there's not enough available land and not enough labour.

"The key he says is clusters of smallholder type operations."

His link to Waisisi transcends, race, international borders and politics. Its a link that came about through the church.

Tan is the former chief executive officer of IJM Plantations Berhad in Malaysia. His company is responsible for producing one third of Malaysian oil palm production. He is also a former chairman of the Malaysian Oil Palm Board.

His first connection with Waisisi was through his brother in-law, a church pastor. His brother in-law was a friend of a fellow pastor from Solomon Islands studying in Malaysia, who was from Waisisi.

With plans already in place for the Solomon Islands Government to develop Waisisi as a national oil palm project, Tan's help was sought out, and link to Waisisi was sown.

After many talks and plans, Tan arrived in Honiara in 2006 for his visit to Waisisi. However, his arrival coincided with the April 2006 Honiara riots.

"It was a baptism of fire. But I was alright I had experienced similar situations in Borneo," Tan said, referring to the burning down of buildings and looting in Honiara.

"I stayed on and we travelled to Waisisi and I got a good feel for the place."

As a former CEO of a Malaysian plantation company, Tan has looked after the company's operations in Borneo,

Indonesia and India.

IJM Plantation Berhad is a former state-owned corporation and in 2003 became a publicly listed company.

After retiring in 2010, Val is still associated with the company in an advisory capacity focusing on the completion of the company's operations in Indonesia and a new venture in Fiji.

His role in Solomon Islands he says is to provide advice and encouragement and to point the people of Waisisi in the right direction.

Speaking after the National Oil Palm Seminar in August, he says he can facilitate investors, once the Government and resource owners do their part in developing the industry.

"My project here is to assist you guys so that the project goes off. The idea is to use my experiences in India. Malaysia and Indonesia to see what type of model will work.

"I come with the blessing of churches in Malaysia. To assist whatever project we pursue will be done in a manner that it benefits the people the most. We don't want to follow blindly what other countries do."

One of his priority tasks is to work with the newly formed National Oil Palm Growers Association to find a model that can be used to develop the industry in Solomon Islands.

For Tan, the key to developing the industry in Solomon Islands, he says is smallholder type production with use of mini mills. He likens this to operations his company has in India.

"Solomon Islands is not a big country, it doesn't have a big population, doesn't have a huge acreage. It can't be huge because there is no population to support large-scale planting.

"What we are trying to do is identify all the suitable land and then get your people to plant.

"Don't do plantation scale operations, it won't work. We want to bring development to the locals. They must develop, they must take ownership. We don't want to buy their land. Teach them to plant and then show them how.



Malaysian oil palm entrepreneur Velayuthan Tan.



The oil palm nursery at Wairokai.

"Then we bring in investors. We don't want to put a huge mill it won't work. It has to be tailored to smallholders – maybe 10 tonne mini mills for every cluster of smallholders – possibly 2,000 hectares."

He said, "we could even get GPOL involved, if the people are serious they'll come and put up mini mills."

His presentation during the seminar was received with enthusiasm from resource owners from other parts of the country who have waited years for work on their oil palm projects to start.

The model of development he has in mind is essentially about eradicating rural poverty and can attract support from Asian Development Bank or the World Bank.

"This is about improving society and the lives of communities giving them jobs, to earn income and to contribute back to

society."

"The private sector approach will not work because there is not enough land to make a large-scale plantation viable."

The way forward for communities wanting to get into oil palm is for local people to start growing oil palm.

"There needs to be a promotional road show to inform communities about the benefits of oil palm. They need to start planting. They need to be told, if you plant 10 hectares this is how much can you make.

"The message has also be clear that it will not be all free. We will provide seedlings and materials but at the end of the day it has to be paid back with interest. We will do progressive payments over 10 years." ●

Did you know?

In 1969, Honiara held the first National Agricultural and Produce Show. The event has developed into the main showcase for agriculture every year.

The last Agriculture and Trade Show was staged in Gizo, Western Province in June 2013. ●

Exporters discuss cocoa price differentiation

Solomon Islands cocoa exporters have called for stronger regulation of the cocoa sector in order to improve cocoa production quality.

Exporters say with stronger regulation, initiatives such as price differentiation and a central registry of fermentaries can be introduced to ensure that the cocoa being sold to buyers and exporters is of a higher quality.

These were among the issues raised during the Cocoa Secretariat Committee meeting in early August, as a way of taking the cocoa industry forward.

One of the country's major exporters, C-Corp called for the introduction of price differentiation so that the price of cocoa can be based on the quality of the beans.

Right now exporters are paying a single price regardless of the quality of cocoa beans.

Exporters say higher premium prices can be received from the international boutique markets if the cocoa is of high quality.

Although the volume of exports have been growing in recent years, stakeholders say the quality of cocoa coming out of Solomon Islands will remain low unless a system can be in place to reward farmers that produce better quality cocoa.

Rural Development Programme, Component 2 Adviser, Dr Mark Johnston, says for price differentiation to work, farmers will need to have incentives in place to improve the quality of their cocoa.

Cocoa expert and long-time agriculturalist Moses Pelomo says for price differentiation to work, it also has to happen at international level.

"Right now Asian buyers are paying one price for cocoa regardless of quality. So the changes have to happen at international level too," said Pelomo.

The other issue raised by some exporters was the idea of having a central registry of fermentaries, so that the quality of processing can be monitored.

The secretariat heard that one of the main problems with Solomon Islands cocoa is that is often too smoky, as a result of poor processing.

Having properly equipped, registered and certified dryers was highlighted as a way of dealing with this issue.

Dr John Konam says CEMA is in the process of creating a database of fermentaries in the country. ●



Exporters target higher quality dried beans.

Solomon Islands' first female agriculture PhD holder

Ellen Talairamo Iramu holds the distinction as Solomon Islands' first and only female agriculture PhD holder.

Her doctorate from the University of Queensland, Gatton College in Australia was awarded in June, some 19 years after she joined the Ministry of Agriculture and Livestock.

In spite of the accolades for Iramu she will always hold strong to her village upbringing that had led her down the agriculture path.

Hailing from Fourau Village, Ata'a in North East Malaita her father was a teacher who was posted throughout the country. She says it was village life in various provinces that introduced her to agriculture.

"Because I grew up in a village, I started working in the garden at a very early age. My interest to take up agriculture as a career began in secondary school when I chose agriculture as my option A subject. "The setting up of small vegetable gardens for assessment of plant growth and harvesting increased my interest, therefore, I wanted to learn more about growing crops. Besides that my interest in science also helped build my interest in agricultural science."

It was an interest she developed further at Selwyn College National Secondary School. She was there until form five where she was head girl. Then she transferred to King George VI School for her form six science, where she was awarded a scholarship to do foundation science at Unitech in Lae, Papua New Guinea. But student unrest forced her and other Solomon Islands students to return home. They were later transferred to Samoa to finish their studies at the University of South Pacific, Alafua Campus in Apia where she completed her Bachelor of Agriculture in 1993.

Career

She joined the Ministry of Agriculture in 1994 as a research officer, a task she described as interesting yet challenging.

One of her work areas was on the improvement of root crops. It was



Dr Ellen Iramu on graduation day.

an interest that would lead her onto further studies and in 1999 she was sent to Papua New Guinea to do research breeding taro for leaf blight resistance.

With a Masters in hand Iramu returned to MAL as a senior research officer in 2003. It wasn't long till her passion for agriculture, hardwork and her hunger for further learning earned her a John Allwright Fellowship scholarship to do her doctorate in Australia in 2008.

PhD

On 18 July 2013 Iramu graduated with a Doctor of Philosophy in the field of horticulture.

Her thesis was on evaluating the effects of plant essential oil formulations of tee tree origin and the combinations of these with neem oil as an alternative safe pest control method for controlling pests on *Abelmoschus manihot* (slippery cabbage).

"These essential oils were tested on *Heliothis armigera* (heliothis) and *Aphis gossypii* (cotton aphid). The results for cotton aphid showed that the essential oils possess both insecticidal and developmental effects, causing mortality and growth/ development abnormalities on the pest; reproduction rate of cotton aphid was also reduced."

While she was challenged with the scientific aspect of her thesis, being

a mother and wife overseas, also provided added responsibilities.

"It was very challenging being a student yet also a mother and wife."

Living with her while she studied were her husband and four children – the youngest six and the eldest 16.

She credits the understanding of her husband who supported her throughout her studies and the understanding of her children to help her through studies.

"Well as a family we were very open about my purpose there and the milestones I needed to achieve for my school work. They rallied around me and supported me wherever they could."

Contributing back

As a doctorate holder, Iramu says she is grateful to the opportunity afforded to her by MAL and ACIAR, for funding her study, to allow her to improve her qualifications and understanding of agriculture.

Iramu says with her new qualifications come added responsibilities, ones that she is keen to fulfil by building the capacity of young researchers and MAL staff.

"With a PhD your eyes are open and you can contribute back with a new sense of confidence and skill.

"For those of us who have been around for a while we have institutional knowledge, I think its right that we pass this on to younger officers."

"Now that MAL has a lot of young women officers, I'd like to challenge them to rise up and improve their skills and take up new responsibilities where they can."

At the end of the day, Iramu, says one's success will depend on the individual in question and how much they want to succeed. ●

Flashback: Ilu Farm's royal visit

Early in 1946, the Protectorate Government took over Lever's Ilu plantation in eastern Guadalcanal as an experimental farm. During the American occupation, 2,000 acres (800 ha) had been cleared and cultivated with food crops.

The plan was to turn much of this land over to rice production, and also to use Ilu as a training site to develop an indigenous copra industry, using Ceylon-type driers.

In April 1949, the Protectorate received a grant of £31,259 to establish a Guadalcanal Experimental Farm, with the aims of producing cash crops and livestock, and improving indigenous agriculture and developing the Guadalcanal Plains (q.v.) through mechanical cultivation.

Crops included rice, root crops, groundnuts (peanuts) and vegetables,



Duke of Kent inspecting rice growing at Ilu Farm, 1969.

supplemented by poultry and cattle. Ilu Farm was sold to Kenneth Dalrymple Hay (q.v.) in 1955 and continued to produce vegetables and poultry for the Honiara Market. (Bathgate 1977, 1) By

1966, chickens were being produced on the farm, supplying six hundred eggs per day. (AR 1949-1950, 6; NS June 1966; PIM Dec. 1946, June 1966). ●

Source: Solomon Islands Online Encyclopedia

Raymond Vava: cocoa specialist in the making

With Solomon Islands committed to exporting 20,000 metric tonnes of cocoa by 2020, the need for capable, skilled and trained cocoa experts within the Ministry of Agriculture and Livestock is all the more imperative.

Enter Raymond Vava. He says MAL officials are the future of cocoa in the country. Vava is being trained and mentored to become Solomon Islands' own cocoa specialist.

Born in 1984 of Choiseul and Malaitan descent, Vava has a Bachelor of Agriculture from the University of South Pacific, Alafua Campus with a postgraduate qualification.

He joined MAL in 2011 as a research officer, but over the past two years his focus has been narrowed down to cocoa genetics, thanks to the guidance of cocoa expert Dr John Konam.

Dr Konam, a Papua New Guinea national is an adviser within MAL's Research Department, part of a cocoa project funded by the Australian Agency for International Development (AusAID). Although Dr Konam's tenure in the Solomon Islands will end in August next year, he is adamant that the gains made during his time here will continue to be developed and carried into the future under the guidance of his understudy, Vava.

Their main work is to develop a superior cocoa plants that



Dr John Konam, left, and Raymond Vava, right, with AusAID officer Judy Tarailopo with cocoa seedlings at a Quarantine facility. Picture AusAID

are better suited to Solomon Islands and can produce higher yielding cocoa.

"What Raymond is trying to do is improve the genetics by identifying potentials of local plants. Put them into a central spot. Look at characteristics such as yield," said Dr Konam.

For Vava working with Dr Konam has been an eye-opener, an experience that has taught him more than he thought possible.

"I've learnt so much from him in the areas of cocoa, pests and disease such as how to identify the symptoms and different diseases of cocoa plants. As well as a lot of other

things to do with administration such as budgeting, work planning even how to schedule payments,” said Vava.

Dr Konam says Vava possesses natural qualities to help him become a strong scientist.

“He is patient, observant and highly principled. And he is willing to go the extra mile, with a strong passion for the job.

“These are important qualities that make him a valuable contributor to the Ministry and the sector. I think Solomon Islands has made a very good investment in Raymond; he is going to become an important asset.”

Innovation

With just seven years to go until 2020 target date, Dr Konam says some a number of innovative measures have been adopted in order to fast-track national cocoa development and to meet the Government’s target.

“Normally this type of work is slow and very systematic but we don’t have that luxury and it’s making us adopt innovative measures,” says Dr Konam.

“Everywhere else in the world, trials take place in controlled environments. But here, Vava has engaged with farmers to actively take part and trial cocoa plants.”

Dr Koman says while in Papua New Guinea and Indonesia cocoa research took up to 17 years, MAL through Vava’s work is trying to cut this down to seven years.

“Overseas research work is very systematic, here we are very ambitious and will try to kill two birds with one stone by producing genetic material at the same time build local capacity.”

Highlights

For Vava one of the highlights of his work was a presentation to agriculture experts in Papua New Guinea at an integrated pest and disease management conference.

“I have never done a presentation in front of experts from the region. But the training that Dr Konam provided gave me confidence to talk about the cocoa programme here in Solomon Islands to scientists from the region.

“For me personally it was a big achievement and a great learning experience. One that has given me new



Dr John Konam points out the features of the improved cocoa varieties at the Kembu Farm in North East Guadalcanal.

confidence.”

Rewarding experience

For Vava what he enjoys the most from the work is seeing the outcome of the trials and research work.

“I really enjoy applying the technology, then seeing the trees respond to it. Seeing the flowering and the effect of the cloning.

I love being out there in the field and applying what I know to the cocoa plants. When I see it happen, it leaves me with a good feeling.”

Just as rewarding says Vava is the work he does with farmers, the interaction and the team work that takes place out in the field.

“In the field I get to hear their challenges, we talk and try to find a solution to their problems together. To grow the industry to 20,000 metric tonnes of export is one thing, but the farmers need to be fully involved to make this achievable.” ●

Spread the word: Hot chocolate ‘keeps brain healthy’

As previously highlighted in AN, not only does it taste good, but there are health benefits from drinking hot chocolate.

An American medical research has found that hot chocolate can help older people keep their brains healthy.

The study found that two cups of cocoa a day boosted blood flow to the brain and improved the memories of volunteers with narrowed arteries. The study involved 60 people with an average age of 73 who were not suffering from dementia.

[Click here for more information](#)



Agriculture and Livestock Minister, hon. David Tome, centre with members of the Pacific Partnership mission.

Animal health assistance from the Pacific Partnership

Members of the Ministry of Agriculture and Livestock's Paravet network took part in training organised by the visiting Pacific Partnership mission.

The Pacific Partnership is an annual deployment of forces from the Pacific Fleet of the United States Navy, in cooperation with regional governments and military forces, along with humanitarian and non-government organisations.

The deployment provides assistance in a number of areas from civil engineering, to medical and veterinary, with vets visiting Gizo and Honiara. The trainings focused on practical paravet skills including basic tool use and equipment handling, clinical examination of the pig and chicken, and basic veterinary and animal management procedures.

The training also covered common diseases of animals in Solomon Islands and exotic animal disease awareness.

Captain Kendell Crocker of the Australian Army said having skilled paravets is important.

"MAL has an important duty to improve the livestock

industry. It is important that the people of the Solomon Islands have access to good quality pig and chicken meat, eggs and in the future beef.

The Paravet trainings were run by four vets, three from the non-governmental organisation World Vets, and the fourth a member of the Australian Army.

Rex Ramoiau, Principle Livestock Officer, who has been part of the Paravet network since 2006 says although the training was revision, there was still new areas covered.

"We got to use the field test kit for bird flu (avian influenza). It's a simple kit, and it was good to get some hands on experience with using it."

"The training was a good refresher and it gave an opportunity for the new Paravets to get some practical sessions under their belt."

The training was also heavily supported by the Rural Development Program. ●



Local Paravets get advice and hands on training from members of the visiting Pacific Partnership mission.



Local Paravets get practical training with equipment.

HR column: organisational development for MAL

By Malcolm Bell, HR Adviser, RDP/MAL

In the last issue of this newsletter, it was reported that there is an emerging consensus on a new organisational structure for MAL. In the article, the structure was described as a "means of paving the way for enhanced service delivery and better meeting our mandate".

Consultations on the detail for this structure are continuing with only two provincial consultations remaining. Commenting on the proposed structure, the Under Secretary, Administration, David Patternot urged MAL staff to be aware that structural change is going to commence once approvals are gained but warned that change can sometimes take some time to implement.

He noted, "The new structure will be documented for necessary approvals and to assist implementation planning, with the change planned to formally take effect on 1 January 2014."

Commenting on implementation of the new structure, Patternot said, "After approval there will remain a lot of work to be done in support of execution of the structural change, including allocating or selecting of staff to positions, systems design, job analysis and documentation, establishing new communication and decision-making arrangements, and management development and training of staff for new roles and duties."

Mark Johnston, RDP Coordinator also stressed that "the proposed structural change will need a lot of support through documenting of new function statements, job descriptions, training and workshops, systems design and process mapping."

One significant need identified by managers and provincial staff during the consultations is for improved systems and procedures. Malcolm Bell is therefore now inviting staff to submit suggestions of systems and processes that they feel may need to be designed or redesigned. Bell commented, "As we move to a new structure, there is a unique opportunity to bring in improvements of many different kinds. Systems and procedures can cut across structural boundaries and involve persons in jobs at many different levels. Hence there can be major breakdowns such as confusion about who is responsible for what, bad decisions, delayed processing, lack of involvement of affected individuals, and inappropriate use of resources. These breakdowns may already exist in the current structure, or may need to be prevented in the new structure as people move into new jobs and organizational units."

Based on information gathered to date and other discussions, the systems currently under consideration for design/redesign include:

MAL policy and planning processes

- MAL Corporate Plan development and monitoring
- MAL policy development including policies for all MAL functions

- Agricultural Priority Assessments for Ministry

Effective management

- Collaborating and designing workplans and monthly action plans
- Staff empowerment and mentoring
- Senior management coordination and communication
- Performance management for staff

Provincial Management and Support Services

- Provincial procurement
- Provincial office management and maintenance
- Occupational health and safety procedures in the provinces
- Reporting
- Provincial arrangements for interacting with provincial governments and administrations

Extension function

- Responding to farmer needs
- Certifying lead farmers and outsourcing of the Extension advisory role
- Private sector interactions
- Technology transfer for farmers

Finance

- MAL procurement approvals
- MAL financial procedures
- Authority and responsibility delegation including provincial access to funds
- MAL budget development and expenditure monitoring

HRM

- Analysing jobs and developing job descriptions
- Training plan development
- Scholarship applications
- Identifying who is nominated for training attendance
- Merit based internal selection for vacant jobs

Project Management

- Project documentation
- Deployment of staff to a project
- Project accounting
- Project M&E

Knowledge Management

- Knowledge management
- Managing research systems
- Transfer of knowledge between researchers/experts

and farmer advisors in the provinces and other advisor stakeholders

- Information Fact Sheets for farmers
- Communication and publications
- Press releases and public information

Agriculture Business and Economics

- Guidelines for market chain analysis
- Agribusiness guidelines for farmers

Biosecurity

- Animal health outbreak caused by disease or pests

Supply Chain and Partnerships

- Guidelines for farmer associations
- Sustainable natural resource management (soils and land-use management)

Bell noted that new systems will be developed over time in support of strengthened internal and external service

delivery, compliance with MAL mandate and Public Service requirements, and improved transparency, efficiency and effectiveness. The consultations have identified the fact that in the past, where some systems were developed and put in place they were often not fully or properly used by MAL officers. In the light of this finding, it is suggested that the process of new and revised system development will need to concentrate on clear documented steps, milestone targets, time-logs, and training of users, to ensure they are fully implemented and regularly monitored.

Any suggestion for systems or processes needing redesign are welcomed, so please send your ideas in an email to the RDP Advisor, (mal.bell@bigpond.net.au) and/or the Under-Secretary (Administration) (d_patternot@yahoo.com.au).

Processes for formal consultation by RDP in support of the organisational development for MAL have nearly been completed. If you haven't had the opportunity to input your ideas yet, you may request Gabriele Hiele (Phone: 21467 Mobile: 7755326 Email: ghiele@sirdp.org.sb) for a copy of a questionnaire designed to gather ideas and attitudes to structural issues.●

Sweetleaf Fact Sheet

By Australian Centre for International Agriculture Research

Botanical name: *Sauropus androgynous* (Euphorbiaceae)

Location specific common names: Sweetleaf, boneo, katuk, star gooseberry.

Plant characteristic: Sweetleaf is a perennial shrub, with small red flowers, usually growing to 2 m. Regular pruning is needed to prevent the plant becoming top heavy and collapsing.

Uses: Young tips, young leaves, flowers and fruit can be eaten raw, and the leaves are well known for palatability. Raw leaves combine well with tomato, cucumber, onions, etc. Older leaves are best cooked (steamed, boiled or baked) and are tasty, nutritious addition to stews and soups. Fruits can be used to make jam. Medicinally sweetleaf is traditionally considered to be effective in reducing undesirable blood fats, gastrointestinal disorders, obesity, osteoporosis, heart disease and cancer. In common with several other leaves, sweetleaf apparently stimulates lactation.

Availability: Sweetleaf is common in the Pacific and northern Australia

Propagation methods: Sweetleaf can be grown from seed and planted out at a height of 30 cm preferably at the start of the wet season. However, hardwood cuttings, around 30 cm in length, produces stronger plants. Cuttings can be stuck in pots in a simple shade house at any time of the year.

How to grow: Sweetleaf grows on a wide range of soils and is known for high yield. It prefers well-drained soils with high levels of organic matter. Like aibika (bele, pele) it can be grown as a hedge. Regular pruning encourages new growth and keeps plants compact.

Threats: Plants may suffer from leaf eating insects like



• Buds and flower bracts on a branch

grasshoppers, especially under dry conditions. Spraying is not usually needed as the problem insects can be easily removed.

Harvesting: Sweetleaf usually grows fast and young leaves can be picked after four months. Leaves should be harvested in the cooler part of the day to prevent wilting. Year-round production is expected if plants are growing vigorously. Plants are best kept trimmed to 1–2 m for leaf production and harvesting.

Post harvest and storage: Leaves or tips can be picked as needed. Loosely bundled cut branches, wrapped in moist paper and placed in a cool location, can be stored for a day or two.

Project findings/nutritional value: Samples were collected from Solomon Islands and Torres Strait Islands. Sweetleaf ranks with ete (*Polyscias* spp., bebero, momotu) as the best zinc accumulators that we analysed, and is a very good

nutritional all rounder, usually high in iron, manganese, calcium, magnesium, sulphur, protein and carotenoids. It is also high in vitamins B and C.

Zinc: Important for immunity, growth, carbohydrate metabolism, and DNA and protein formation. Humans have around 600 different Zn-containing enzymes/proteins.

Iron: Important for healthy blood and energy.

Manganese: Enzymes containing manganese are important in metabolism of carbohydrates, protein and fats, and in enhancing immunity.

Magnesium: This mineral is important in bone formation, energy production, and nerve and muscle function.

Calcium: The most important mineral for the growth and maintenance of bones and teeth. Calcium is important for

cellular physiology.

Sulphur: Sulphur is needed for production of the hormone insulin, which controls blood sugar level. Sulphur is needed for the protein keratin, important for bone, cartilage and tendons.

Protein: This important in forming muscle, cell membranes, enzymes, blood components antibodies, DNA and RNA. The nitrogen analysis here indicates a protein content of around 19%.

Carotenoids: Lutein is important for eye health (e.t. reducing risk of cataracts) and beta-carotene (pro-vitamin A) is important for vision, immunity and bone health. ●

Recipe: Fried vegetables in oyster sauce with minced pork

Contributed by Lily Wane, Chief Field Officer, Extension

Ingredients

- Pak Choi or any green leafy vegetables
- 500 g minced pork
- 5 black mushrooms
- 1 tablespoon cornflour (blended with a little water)
- 1 green/red chilli, chopped
- 1 tablespoon oyster sauce
- Salt to taste

Method

- Fry the vegetables in oil and transfer to a plate when cooked
- Pour 1 tablespoon oil into the pan and fry the pork mince. Add sliced mushroom, oyster sauce and corn flour and when cooked, pour this onto the vegetables.

For more information on stories in this newsletter or agriculture enquiries contact the Agriculture Information Unit within the Ministry of Agriculture and Livestock.

Ph: 22143/22144 **Email:** mal.agrikalsanius@gmail.com

For the latest agriculture news and stories catch Famas Kona every week on the national broadcaster SIBC at 8.30pm on Monday and 7.30pm on Wednesday.

The Agriculture Information Unit is the public relations arm of the Ministry of Agriculture & Livestock. Its role is to disseminate agriculture information to the public and farming communities using radio, newspapers, television, online and print media.

Library

The Solomon Islands National Agriculture Information Centre is now open.

The library has a major collection of books and information on Solomon Islands agriculture. Members of the public and students are encouraged to visit the library for information on agriculture in the Solomon Islands and around the world.

Opening hours

Monday & Wednesday

1:30pm - 4:00pm

Friday

9:00am - 11:30am