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Savaii farmers display their produce at the Agriculture show



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Editor in Chief : Mohammed Umar
 Publication Officer : Taranaki Seiuli
 Email : seiuli_t@samoa.usp.ac.fj

The Ministry of agriculture and fisheries (MAF) held its annual agriculture show in Salelologa, Savaii on the 4th and 5th of May 2012. This is the first separate agriculture show for Savaii alone as it is usually done on Upolu island.

MAF and farmers from all over Savaii came to display crops and livestock. Competitions were carried out for the best crop and plantation. A day before the show MAF officers visited farmers plantations back in the villages to assess as part of the competition. Prizes were presented to the winners during the agriculture show. Prizes were also given out to the winners of the numerous competitions that were carried out during the show.

The purpose of the agriculture show was to promote and improve agriculture, encourage farmers and invest in the future of the nations agriculture as there is a lot of potential to prosper. It was also an opportunity to encourage others to farm. Samoa has a lot to gain from agriculture doing well, as Samoans mainly depend on agriculture for survival and its core income source.

Savaii farmers display their produce at the Agriculture show

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The Prime minister in his speech said, "that developing Samoa's agriculture will discourage dependence on imported processed unhealthy food that is consumed by many Samoans. It will also encourage people to consume locally grown healthy food."

The Prime minister also encouraged village leaders to instruct the unemployed youths who are wasting their time loafing in town to return back and work on the land as it was done in the past.

He emphasized that the farmers play the important role of providing for their families, selling their surplus produce for the rest of Samoa and to contribute towards meeting the required amount of produce that is exported to supply the increasing demand.

"Samoa wastes a lot of money on imported processed food that is unhealthy while there is a vast choice of healthy locally grown food. 118 million is spent annually on imported food. Farmers have the opportunity to supply the food that replaces imported food. Not only will Samoa save money spent on imported goods it increases its income through the increase in exports and they will also spend this money on healthy locally grown food," said the Prime minister.

The agriculture show is one of the many activities that the government carries out throughout the year with the objective of developing agriculture. Together with the agriculture show MAF have previously and will continue to provide assistance to farmers to encourage them even more by providing trainings and making available easily accessible funds for farmers to apply for loans.



Growing the Giant swamp taro for students project



Student projects: planting the four cultivars of the giant swamp taro



Students studying Introductory Agricultural Biology with their lecturer Va'asiliega Rupeni Tamanikaiyaroi

USP Alafua students taking the Introductory Agricultural Biology course (AG164) taught by Va'asiliega Rupeni Tamanikaiyaroi are studying the Giant Swamp Taro (*Cyrtosperma chamissonis* or *Cyrtosperma merkusii*) also known as Pula'a in Samoa is one of the root crops that have spread across the Pacific. This was a 14 week project for the students.

This large, cultivated "hard" or "swamp" taro has been a very important starchy, staple food source. It reaches heights of up to 4-6 m and produces huge green to yellowish-green, heart-shaped leaves with tips that point upward. This plant grows very slowly and it usually takes 3 years before it matures and it only grows in swampy land.

This crop grows well in any weather which is why it is very reliable during disaster periods. It takes in a

lot of water, of about 20 liters twice a day.

There are four different cultivars that the students are currently planting which are Puaka Tokelau, Ikamakini, Pai Taliga and one that is unknown.

For atoll communities, swamp taro is the pillar of food security. The aroid is often said to be salt tolerant and has flourished in the challenging atoll environment.

With the continued study and research by the students the cultivars of this spectacular aroid can be conserved and its traditional knowledge persevered for the future generations. This will not only ensure food security in the Pacific but also prevent the erosion of the Pacific identity linked to the aroid.



Very large taro plants cultivated on one of the atolls of the Marshall Islands. (Photo by Michael Weisler)



Students project of the four cultivars of the giant swamp taro

Climate Change in relation to Agriculture/Forestry in the Pacific Conference

Va'asiliega Rupeni Tamanikaiyaroi



Front row: Dr Jito Vanualailai (third from left), Sheik Azid standing behind Dr Vanualailai, Dr Helen Jacot des Combes standing behind Sheik

The objective of the conference was to bring together the relevant experts and stakeholders from Europe and Pacific to establish priority research areas in climate change for EU-Pacific cooperation. The expected outcome was for the participants to come up with appropriate adaptation and policy recommendations to support EU-Pacific collaboration in research, development and innovation. European delegates came from Belgium, France, Switzerland, Sweden, Austria, Denmark, United Kingdom, Germany, The Netherlands, Finland, Ireland, Italy and Turkey. Pacific participants came from New Caledonia, Tuvalu, Kiribati, Fiji, French Polynesia, Samoa, Papua New Guinea, New Zealand, and Australia. More than 100 participants attended the conference. Among them high level policy, research, development, and innovation representatives from the European Commission, the European External Action Service, national and regional organizations in the Pacific, industry and international organizations. There were five USP representatives in the conference – Sheik Azid (PACE Net Research Officer), Dr Helene Jacot des Combes (Lecturer PACE-SD), Dr Jito Vanualailai (USP Director of Research), Dr Bibhya Sharma (Associate Dean – Learning and Teaching FSTE) and Va'asiliega Rupeni Tamanikaiyaroi from USP SAFT Samoa.

Mr Tamanikaiyaroi was a member of Workshop 2: Climate change in relation to Agriculture and Forestry. I was also a facilitator assisting Dr Gerd Ruecker and Dr Manuela Schisani. Altogether there were 15 of us in the agriculture and forestry team. After 2 days of deliberation, our group came up with 3 most important needs in agriculture and forestry

in relation to climate change. These 3 needs are genetic resources and management, traditional knowledge and monitoring, evaluation and compliance. The main cross cutting issue identified is the awareness and communication from village level right up to national level in each Pacific country. It was also mentioned that a good policy requires factual information collected by a high standard monitoring system. The message to “plant more trees” was strongly emphasised by one of our forestry colleague.

The conference was a fact finding mission for the EU to streamline its Climate Change research, development and innovation in the Pacific region. EU funding, Pacific community participation and EU-Pacific teamwork are the three main criteria of success. Even though, the EU standards of research, development and innovation is seen to be comparably higher than the Pacific region, USP is confident of meeting this challenge as was strongly emphasized by Dr Jito Vanualailai during the high level platform meeting on the last day of the conference.

The take home message for SAFT is that we need to improve our Plant Breeding and Crop Improvement research capability by preserving our genetic resources and generate more high yielding cultivars to cope with climate change. USP-SAFT has the opportunity to strengthen its course offerings in this area. As a University with vision, we should be able to prepare our students to cope with climate change especially those who come from atoll countries like Kiribati, Tuvalu and Tokelau.

Mandarins in season

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Mandarin is in season and the Fugalei market is filled with growers selling mandarin. It is also common to see some families sell mandarins in front of their homes. Angela Viane was one of the many growers at the market selling mandarins.

Depending on the variety, mandarin and oranges are in season from December through July in Samoa, with peak season being January and February.

To select the best fruits, choose fruits that are unblemished and heavy for their size. Avoid those with cuts, soft spots, or mold. Bright color is not necessarily an indication of quality and some naturally have green patches even when fully ripe.

They may be stored in a cool, dark spot for a few days, but ideally should be refrigerated to extend shelf life up to two weeks.

Angela planted her mandarins by taking the seed and planting it an inch under good soil. Put it in a sunny area and water until damp not soggy. It could take a month or a week for the seed to root depending on the seed if it is good.

Citrus fruits, as such, have long been valued for their wholesome nutritious and antioxidant properties. It is scientifically established that citrus fruits, especially oranges, by virtue of their richness in vitamins and minerals, have many proven health benefits. Moreover, it is now beginning to be appreciated that the other biologically active, non-nutrient compounds found in citrus fruits such as phyto-chemical antioxidants, soluble and insoluble dietary fiber have been found to be helpful in reduction in the risk for cancers, many chronic diseases like arthritis, and from obesity and coronary heart diseases.



Large scale commercial farming, way to lift Tonga's economy

Taniela Hoponoa

Prince Tu'ipelehake, former Minister for MAFFF, known for his vision of agriculture as driver of Tonga's economy led the introduction of squash pumpkins to Tonga. This time, he uses his own 400 ha estate near the Fua'amotu International Airport to start an innovation. This involves mass production of vegetables and local tobacco.

A well-planned and managed site (3 ha in production) observed to have grown varieties of vegetables ranging from head cabbage, lettuce, tomato and capsicum near Fua'amotu International airport. The operation supervised by Sione Lakepa and assisted by 2 skilled labors. Tractors were used in the initial land preparations and rotary hoe prior to planting. Weeding and irrigation are done manually. Given that the operation is assisted with mechanical tools and strategies, there is a future for these commodities in Tonga.

Despite the limited resources, the plantation planning, management and marketing strategies used seem to provide the right ingredients to its clients. A set up such as this one is a model to all Tongan growers.



Worlds largest flower

The largest flower in the world was blossoming in Blanco , Veracruz , Mexico.

Two meters high and weighing 75 kilos, it has the peculiarity of blooming only during three days every 40 years.

You'd only see it once or twice in a lifetime! Shouldn't this qualify as the "8th Wonder of the World"?

Amorphophallus titanum (Araceae), also called "cadaverous flower" has the peculiarity of blooming only during three days every 40 years, a privilege that Mother Nature bestowed on this town in Veracruz .



NARI launches corporate plan

Senior/ Anzu



Governor of Morobe province Luther Wenge (left) and Director General of PNG's Office of Higher Education Professor David Kavanamur jointly launching the NARI Corporate Plan – SRF

The PNG National Agricultural Research Institute (NARI) launched an updated and redesigned corporate plan during the 2012 Agricultural Innovations Show at its Momase Regional Centre, Lae, on 4th May 2012. The development and establishment of the plan, titled 'Strategy and Results Framework (SRF)', which is relevant to present circumstances, was the most recent and important milestone in NARI.

The plan was jointly launched by Morobe Governor Luther Wenge and Director General of Office of Higher Education Professor David Kavanamur before a packed crowd comprising of farmers, guests and NARI staff who participated at the annual show.

NARI Strategic Planner Dr Birte Komolong said the SRF provides overall strategic direction to NARI's efforts to enhance the productivity, efficiency, stability and sustainability of the smallholder agriculture sector (NARI Strategic Objective) and thus contributes to an improved welfare of families and communities.

This is accomplished through four key strategies: Improving productivity, efficiency and stability of agricultural production systems. Influencing the enabling environment (policy, markets, and

institutions) for sustainable agricultural development. Using and sharing of information and knowledge in the agricultural sector, and enhance efficiency and congenial institutional environment for effective agricultural research for development.

Dr Komolong said the SRF is implemented through programmes and projects that collectively generate development outcomes and impacts including improved food security, nutrition and health, increased income for rural communities, sustainable natural resource base and environment and gainful employment, directly contributing towards the three pillars of Wealth creation and Natural Resources, Environmental sustainability and Climate Change and Human Capital development and thus help realizing the government's long-term blueprint - PNG Vision 2050.

More than 50 organizations; ranging from agricultural research and development organizations, agri-industries and agricultural suppliers, educational schools and institutions, government departments and statutory agencies, international development partnerships, health-based organizations, NGOs, farmer groups, and farmers; exhibited at the show to share their technologies and innovations.

USP Alafua opens its new Students Executive office



The new USPSA Alafua Students Executive Office was officially opened on Monday April 30th, 2012. In her Opening remarks, the Acting Campus Director, Leatuaolevao Ruby Vaa mentioned that although this project has taken a while to come into fruition, it plays a pivotal role in supporting all students at the campus. As part of USP's strategic plan to prioritize student support, the new building houses the office of the Students Executive and it also has a recreation and gym facility for students and staff use.

The President of the Student Executive Body, Mr. Jordan Fau, expressed his gratefulness for the new building for students.



Farewell Lusia

Lusia Matafeo who has worked for USP for 34 years as a cleaner has retired to enjoy life in Australia with her children. The USP staff at Alafua came together to share stories and bid her farewell on her last day as a staff member of USP.



Growing Taro

Taro is an important staple in Samoa despite the outbreak of the leaf blight back in 1993 in Samoa. It devastated the taro crop, decimating farmers incomes from local and overseas markets.

Fortunately through the joint work of the government and its partners through breeding processes it has successfully produced 5 varieties of taro that are tolerant of the leaf blight.

It is important to mass produce planting materials so farmers will have sufficient taro in large areas. This will help in the consistent supply of produce for the domestic and export market.

The USP-IRETA farm is growing two of the new varieties that is tolerant of the leaf blight disease.



Taro grown at the USP-IRETA farm

Sharing information and ideas

The National

SHARING of information, exchanging of views and mobilizing resources with stakeholders are vital to promote and improve innovative agricultural development in Papua New Guinea. Appropriate avenues are also important for the exchange of information and new innovations and knowledge for feedback from stakeholders. One such avenue is the annual Agricultural Innovations Show hosted by the National Agricultural Research Institute on Friday 4th May at the Sir Alkan Tololo Research Centre outside Lae.

This was the sixth Agricultural Innovations Show, with the first show in 2007. Since then, the show has been getting bigger and better every year with the quality of innovations and participation. The event also marked the 15th Anniversary of NARI. The event was organized around the theme "Investing in Innovative Agriculture for Prosperity". The theme reaffirms NARI's view that progress through innovative agricultural development is essential if PNG is to realize Vision 2050 and become a wealthy and prosperous nation.

The nation has the need, great potential and vast opportunity to prosper through innovative agriculture, and hence the focus on investing in innovative agriculture. This is in line with NARI's efforts to encouraging consistent investment in agriculture, particularly in research to develop technologies and innovations which are crucial



agents for innovative agriculture and rural development. With the economy projected to grow at about 8 % and the LNG and other related projects coming on stream, PNG has a more favourable environment and opportunities now than ever before for all stakeholders to make positive contribution to innovative agricultural development in general, and to research, science and technology, in particular.

More than 50 organizations participated in, displaying their innovative ways, methods and approaches.

NARI will continue to host Agricultural Innovations Show every year and showcase what it is doing for the benefit of its stakeholders.

May Images



Ducks displayed at the Savaii agriculture show



Crops displayed at the Agriculture show



Poultry display at the Savaii Agriculture show



Taro display at the Savaii Agriculture



Sheep at the Savaii Agriculture show



Cattle at the Savaii Agriculture show



The largest flower in the world