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SAFT postgraduate research won the Best Paper Award in an international conference

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A **PhD student, Sanjay Anand**, and his supervisor, Dr. Danilo Guinto, Senior Lecturer at USP School of Agriculture and Food Technology (SAFT) bagged the **Best Paper Award** in a conference held at Subic in the Philippines from 29 to 31 May 2013. The conference now on its 16th year is organized by the Philippine Society of Soil Science and Technology and gathers soil scientists from the whole Philippine archipelago and some Australasian countries like Australia, Japan and Korea.


PHILIPPINE SOCIETY OF SOIL SCIENCE AND TECHNOLOGY, INC. (PSSST)
presents this
2013 BEST PAPER AWARD
(First Place)
to
SANJAY ANAND and DANILO F. GUINTO
For their paper entitled COMPARISON OF SELECTED BIOCHEMICAL SOIL HEALTH INDICATORS OF TARO SOILS IN SAMOA.
Given this 31st day of May 2013 during the 16th PSSST Annual Meeting and Scientific Conference held at Subic Holiday Villas, Subic, Zambales
CARLITO P. LAUREAN, Ph.D.
Vice Chair, Board of Judges
Best Scientific Paper Senior Category
NENITA E. DELA CRUZ, Ph.D.
President

The study entitled "Comparison of Selected Biochemical Soil Health Indicators of Taro (*Colocasia esculenta)* Soils In Samoa" won on the basis of its promising results, scientific approach and its significant economic impact in the agriculture industry. This post-graduate research is funded by the Australian Centre for International Agricultural Research (ACIAR) as part of its Soil Health Project implemented in three different countries in the South Pacific – Fiji, Kiribati and Samoa. The conference theme " Soils for Survival" is very apt for the long-term objectives of this project.

Mr. Anand expressed delight that his first ever experience of presenting a paper in a professional conference brought not just excitement but confidence that his PhD research is heading the right track. "This is a great milestone, by far, and I hope the research will continue with minimal disruptions unlike what was experienced in the last cyclone Evan", Mr. Anand said. He was also appreciative of the exposure and encouragement provided by his ACIAR and USP family and wished that other postgraduate researchers will be afforded the same opportunity for their career growth.


Sanjay Anand defending his paper in front of the judges


Dr Danilo Guinto receiving the award on behalf of Sanjay Anand

The USP Alafua family takes great pride on this achievement. Mr. Mohammed Umar, Acting Head of the School of Agriculture and Food Technology (SAFT), sees this as a growth point in SAFT's research profile and hoped that funding support for academic agricultural research and extension at SAFT will be strengthened.

Training of Trainers on Integrated Pest Management for Cabbage in Samoa

By Valerie Justo, Aleni Uelese and Tommy Tuuamalii

Twenty one participants from Samoa mainly from the Ministry of Agriculture and Fisheries (MAF) enthusiastically participated in the Training of Trainers on Integrated Pest Management for Cabbage conducted at Nuu Research Station from 10 April to 19 June 2013. This is a collaborative program of the Food and Agriculture Organization (TCP /SAP/3401), Australian Centre for International Agriculture Research (ICM Project), Secretariat of the Pacific Community and the MAF of Samoa. A similar training was conducted at Fiji in the last quarter of 2012. The program aims to reduce pesticide hazards to man, other animals and the environment in the Pacific region.

The training program opened with encouraging messages from the ACEO for Crops of MAF Samoa, Mr Misa Konelio Misa and the Plant Production and Protection Officer of FAO, Dr Viliami Fakava. The participants consisted of 17 staff from the MAF Research, Development and Advisory Sections and 4 representatives from the farmer organization and the woman's group (Women In Business Development, Inc.). Ms Valerie Justo, IPM Specialist from the Philippines and FAO Consultant on IPM facilitated the training program with assistance from staff at MAF, Aleni Uelese (National IPM Coordinator), Tommy Tuuamalii and Josie Lautisi.

The intensive training program achieved its objective of enhancing the technical capabilities of the participants on IPM in cabbage through hands-on and experiential learning activities for one cabbage crop cycle, from seedbed management to harvest. Apart from this, the would-be trainers further developed their facilitation and training skills to prepare them for the facilitation of the Farmers Field Schools (FFS) for cabbage IPM.

Cabbage seedbed management

Participants showing the fruits of their labour—harvesting cabbage

Group dynamic exercises allowed the attendees to play both the facilitator and participant roles. These allowed them to get insights on how best to impart knowledge and information to prospective trainees and ensure effectiveness of the training methods to be used in the future. Specifically, the participants were provided with the opportunity to share technical know-how on cabbage production and management such as selection of appropriate varieties, identification of pests and diseases and their management. They also learned the cabbage production technology in the Philippines.

Focused group discussion and community mapping

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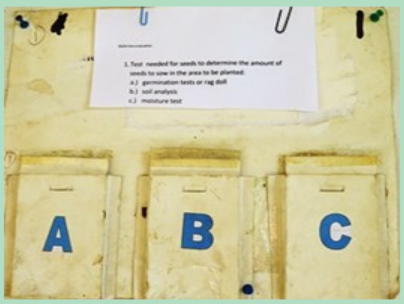
Training of Trainers on Integrated Pest Management … *continued from p2*

In order to simulate actual cabbage production using IPM, each group was assigned to a field plot and each plot was divided into two treatments: IPM and Farmer's Practice. The plots were applied with chicken manure at transplanting and chemical fertilizer as side dressing. Farmer's Practice Plot was sprayed with insecticide, pirimiphos methyl (Attack) twice at pre-cupping and cupping stages while the IPM plot applied with *Bacillus thuringiensis* (Dipel) once at cupping stage. These plots were used for the weekly agro-ecosystem analysis (AESA) which is the regular monitoring of the cabbage plant to determine any action or practice needed at certain plant condition and stage.

Each group measured agronomic parameters including plant height and diameter, number of leaves and stage of the crop growth from ten sample plants per plot. Beneficial (spiders, predators and parasitoids), and insect pests were counted from each ten sample plants. Symptoms and signs of disease infection and any disorder were observed and recorded apart from weather conditions. Participants also collected insect pests during the AESA.

Ballot box, an evaluation exercise, was conducted at the beginning of the training to determine the weaknesses and strength of the participants in IPM and cabbage production. The same exercise was also conducted before the closing program to determine the level of knowledge gained by the participants on IPM concept and pest management strategies such as cultural, biological, mechanical, physical and chemical control and their readiness to facilitate in the FFS.



Tools in Participatory Rural Appraisal (PRA) such as focused group discussion, cropping calendar, baseline survey and community map were introduced to the participants. Each group were assigned to present a role play of a particular tool in PRA. These are tools they can use to gather information such as cropping practices, cost of production, etc. to a particular group of farmers from a village.

While the Training of Trainers was ongoing, Farmer's Field Schools were started at Aleisa, Suifaga and Satupaitea. The FFS curriculum developed by the participants themselves was used to pilot the FFS. This is a significant outcome of the training and demonstrates the enhanced capability of the trainers to re-echo what they learned from the 3-month intensive training.

Baseline survey and crop calendar

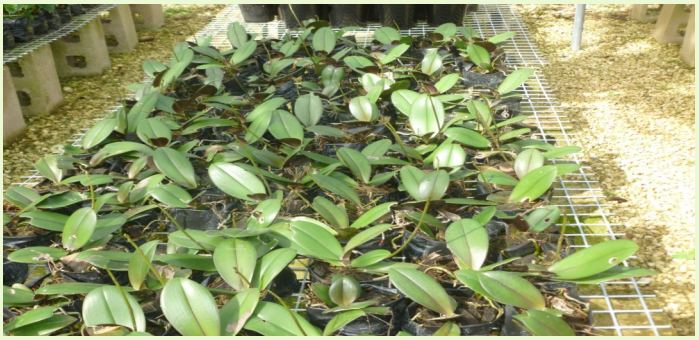
Trainers assisting in the FFS

Women in Tonga trained on floriculture technology

Over 200 women in Tonga were given the opportunity to participate in the Floriculture Development Project funded by the Food and Agriculture Organization. Mr. Mohammed Umar, FAO Consultant, who provided the technical expertise by training these women in raising anthuriums, orchids and other tropical ornamentals in November 2012, undertook a review of how the project is progressing and reported extremely promising results.

The project is implemented in collaboration with the Ministry of Agriculture in Tonga. Two central nurseries, one located on the island of Tongatapu and the other on the island of Vavau, were used as pilot sites. The project hopes to build up the floriculture business in these two islands. The participants were encouraged to build their own shade houses and each grower is provided with plants so they can establish their own nurseries.

The recent review conducted by Mr. Umar in June 2013 revealed positive outcome where a number of participants are found to be doing well in their home nurseries. He is confident that the participants will be able to sustain the progress of the project with technical support from MAFFF, Tonga. He further provided them with the necessary motivation that their sustained efforts may result in potential entrepreneurial opportunities.



Well growing ornamentals

The Government of Tonga is giving strong support to projects such as this because it can empower women to engage in economic activities and use their time effectively while earning money and eventually contributing to increased household income and better livelihoods. This project has potential to complement the tourism industry in Tonga.

Samoa recognized for its notable efforts in fighting hunger

The Minister of Agriculture and Fisheries, Le Mamea Ropati Mualia, received the **FAO Millennium Development Goals Award on behalf of the Prime Minister and the people of Samoa during a** special event "Recognizing outstanding progress in fighting hunger" held at the FAO headquarters in Rome on 16 June 2013 during the 38th Session of the FAO Conference Rome. The award was handed over by the Director General of FAO, Tagaloa José Graziano Da Silva.

Photo taken from Samoa Observer

Samoa is one of the 18 countries who have attained, three years in advance, both the Millennium Development Goal target of halving the proportion of hungry people by 2015 and the more stringent World Food Summit (WFS) target of having reduced by half or more the number of undernourished estimated in 1990/92. The Minister attributed the attainment of the targets to the efforts by farmers in ensuring the country's food security. He noted that despite Samoa's limited development resources and remoteness to main trading markets, the government exhausted substantial efforts to meet these targets.

He made special mention of the generous support the development partners like FAO and the donor community of Samoa have continuously granted to the people of Samoa. He also recognized the concerted efforts of the other sectors such as health, education, religion, cultural, political and other social sectors who worked tirelessly in uplifting the wellbeing and livelihood of the Samoan communities.

SAFT – MAF Samoa collaborative project kicks off

The USP-SAFT and ACIAR Soil Health Project for Taro Improvement in Samoa is now in progress with sampling of soils from taro farms in both Upolu and Savaii being done by staff of the Ministry of Agriculture and Fisheries (MAF) and submitted to the USP Central Laboratory for assessment of biological soil health indicators.

Dr. Danilo Guinto (Senior Lecturer in Soil Science) and Mr. Daya Perera (Senior Technician) are the project staff from USP while Dr. Seuseu Tauati (MAF Consultant) and Ms. Ataotaulelei Sae (MAF staff) are spearheading the project on behalf of MAF.

The project will assess fertility and biological health aspects of taro soils and hopes to contribute to the reduction in biosecurity issues besetting the taro export industry in Samoa, such as parasitic nematodes, fungi, and mites. The research outcome of this project is believed to contribute positively to the Samoan government's thrust of sustaining and improving the growth of the country's taro industry.

What's on CAMPUS

USP in Samoa joined the nation in celebrating 51st Independence Day

Once again, staff and students of USP Alafua trooped in hundreds to Samoa's Government Building grounds to partake in the country's annual celebration of Independence Day on 1st June 2013. The USP delegation came in red and blue traditional Samoan fabric uniforms on a show of support for the aspirations and goals of the country's leadership for the people of Samoa. The students representing the different member countries of the Pacific Island spent their early Saturday morning to march with a USP banner and joined other sectors in paying respect to the flag of Samoa which symbolizes the country's independence obtained in 1962.

Zumba Challenge takes centre stage at USP Alafua gym

Staff and students at USP Alafua took the challenge of losing the most weight through Zumba sessions held twice a week for the whole month of June 2013. This initiative is taken to encourage healthy lifestyle among staff and students on campus. Participants enjoyed the music and dance steps provided by lead Zumba instructor, Allan Alo, Coordinator for Pacific Outreach for Polynesia Program. Apart from the fun and excitement, everybody were extra cautious of how they are progressing compared to other competitors which compelled them to work out even harder. Betty Pinati, USP Library Assistant, emerged the winner. Everybody is invited to participate in future challenges.

Agriculture resource base expanded

USP Alafua Library recently acquired new materials to expand the agriculture resource base of the campus. The following are now available for reference by staff, students and the external public:

- Environmental Chemistry of Animal Manure by Zhongqi He
- Wheat : Genetics, Crops and Food Production by Maria T. Almeida
- Herb Gardening from the ground up : Everything you need to know about growing your favourite herbs by Sal Gilbertie and Larry Sheehan
- Crop adaptation to climate change by Shyam S. Yadav, Robert J. Redden, Jerry L. Hatfield, Hermann Lotze-Campen and Anthony E. Hall
- Postharvest biology and technology of tropical and subtropical fruits by Elhadi M. Yahia
- Peppers : botany, production and uses by Vincent M. Russo
- External parasites of small ruminants : A practical guide to their prevention and control by Peter Bates

You can maximise the benefit of the Alafua library resources by going online at http://www.usp.ac.fj/index.php?id=usp_alafua_library.

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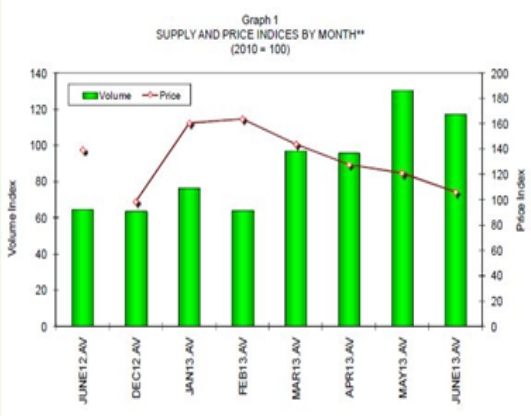
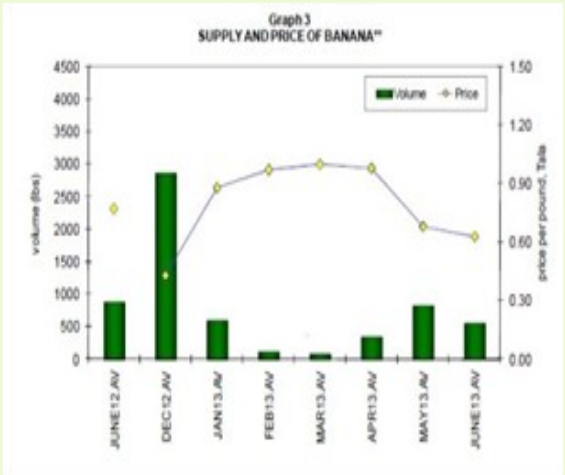
Local market supply in Samoa already showing signs of recovery from Cyclone Evan

The latest data released by the Samoa Bureau of Statistics in June 2013 revealed that the local market supply and prices of primary crop commodities are showing promising trends. This is based on comparisons made between the December 2012 data (Cyclone Evan month) and May and June 2013 data (5 to 6 months after the cyclone and start of stable weather season). As a result of more supply in the market, prices have shown a downtrend.



Among the crops badly affected by the cyclone, banana supply has not yet shown significant recovery with price tripled during the low supply months from January to April 2013 but since decreased slightly when supply started to increase.



There is practically nil production of breadfruit until three months after the cyclone. Currently, supply level dramatically increased from 66 lbs. in December 2012 to 1188 lbs. in June 2013. The price of the commodity doubled after it became available in the market but has since came back to its pre-cyclone price this month when supply volume doubled compared to the previous month. A similar trend was evident in head cabbage, tomatoes and Chinese cabbage although the latter showed a decrease in supply after the March peak.

The other commonly supplied commodities such as taro, yam, coconut, cucumber and pumpkin maintained a steady supply throughout the observation period.

What's on CAMPUS

... *Continued from p.6*

USP Alafua gears up towards Open Day

USP Alafua invited to partake in climate change adaptation researches

A scientist from the Bureau of Meteorology in Australia, Professor Yuri Kuleshov, who is also managing the Pacific Australia Climate Change Science and Adaptation Planning Program, oriented the staff of the School of Agriculture and Food Technology (SAFT) on a climate change adaptation project in a meeting held on the 13th of June 2013. The program is currently implemented with the Ministry of Natural Resources and Environment MNRE) of Samoa.

Professor Kuleshov noted that a lot of efforts have been used to transform historical meteorological information to establish climate change projections in the Pacific Region. Mr. Sonny Seuseu, Principal Scientific Officer for Climate of MNRE affirmed that they have invested resources to provide early warning information to assist the community in disaster preparedness.

The agriculture sector is proven to be highly impacted by climate change in the Pacific and as such the project would like to extend the science developed in Australia for use in this sector particularly on maintaining biodiversity and seasonal adaptability of crops. One strategy suggested to link agriculture with climate change is to develop a manual which can translate weather forecasts into farmer's actions. The program identifies USP as a potential partner and the HOS SAFT Mr Umar welcomed the partnership proposal and suggested that a 3 to 5 year project be developed largely to look at adaptation to climate change issues. The staff welcomed the collaboration and suggested that it is now time to elevate climate change adaptation to the academic level by incorporating this in the teaching curriculum and research and extension agenda of SAFT. They pointed out that education of farmers (both subsistence and commercial) is very significant in addressing climate change issues.

SAFT welcomes a new livestock specialist to its fold

USP School of Agriculture and Food Technology (SAFT) recently recruited a lecturer who specializes in ruminant livestock production. Dr. Poasa Tabuaciri who spent most of his professional career in Fiji brought with him a string of academic and research experiences which paved the way to a teaching career at USP Alafua in Samoa. He joins Dr. Siaka Diarra, a monogastric livestock specialist, in the school's Animal Science Section.

Dr. Poasa holds a Diploma in Tropical Agriculture from the Fiji College of Agriculture, an International Diploma in Tertiary Teaching from Fiji Institute of Technology, a Bachelor of Agriculture from USP Alafua Campus, a Master of Science in Animal Science from the National Pingtung University of Science and Technology in Taiwan, and a Doctor of Philosophy in Animal Genetics and Breeding from the University of New England in Australia. He worked at the Livestock Section of the Ministry of Agriculture in Fiji for 14 years before joining the National University of Fiji in 2010.

Joining USP, according to Dr. Poasa, is a dream-come-true. He believes USP is a strategic workplace and has a leading edge which will allow him to reach out to the livestock sector across the Pacific and contribute his expertise in various aspects of the livestock industry mainly in improving livestock production systems – housing, feeding, and breeding. "*I hope to build up networks that will connect USP SAFT to the livestock producers in rural areas*", he noted. He sees himself still with USP in the next 5 years and even beyond and will strive to be in the frontline of livestock production in the region.

He is prepared and confident to face the challenge of picking up the pieces from past failures and limited resources of the livestock industry and explore practical ways to meet the livestock needs of the region.

From the whole SAFT and USP family … we wholeheartedly welcome DR. POASA TABUACIRI.