Three students from the School of Agriculture and Food Technology (SAFT) had the opportunity to attend the JENESYS 2016 Study Tour Project in Japan from the 17th to 27th January 2017. The JENESYS Programme (Japan-East Asia Network of Exchange for Students and Youths) is a project advanced by the Japanese government and University of South Pacific, from the standpoint of providing a sound foundation for strong solidarity within Pacific Island Countries through large-scale youth exchange.

The students who participated in the Study Tour Project, with the theme “Environment and Energy”, were Charlie Shuruban from PGN (Masters Student), Fuatino Aquinas Afato Fatiaki from Samoa (Masters Student) and Jamal Letoa Dillon Tamasese also from Samoa (Undergraduate Student).

The objectives of the JENESYS tour were to enlighten the PICs students in different disciplines, share cultures, experience and interact with other Pacific Island people, experience the Japanese daily lifestyle and climatic condition of Japan and observe how the Japanese people preserve and look after their environment and utilize their energy in any possible way they can.

Throughout the program, they learned a lot of things within the short period of time in Japan, especially on the way they look after their environment and their farming techniques to preserve the land. They used available resources to produce the energy they needed for daily living. Good manners and politeness are valuable assets each and every Japanese citizen possesses.
This study by PhD student, John Bosco Sulifoa, a student from the Solomon Islands, investigated the biology of Large Cabbage Moth (LCM) in Samoa and the life cycle and behavior of *T. chilonis* on LCM, in order to harness the potential of the parasitoid as part of sustainable pest management strategies for Brassica farmers in Samoa and the Pacific. Thus, the main objectives of this study were to investigate the biology and oviposition behavior of LCM on Chinese cabbage in Samoa; evaluate *T. chilonis* parasitism and attack rate on LCM egg masses; determine the biology of *T. chilonis* in LCM; and examine the oviposition behavior *T. chilonis* when offered LCM eggs.

The major constraint in brassica production in tropics and sub-tropics is LCM and to manage LCM, farmers heavily spray their crops with insecticides. However, these chemicals do not achieve sustainable management of LCM. The alternative method to chemical insecticides is use of natural enemies through integrated pest management (IPM) programme. Natural enemies of LCM have not been well documented around the world. However, in Samoa the locally established population of egg-parasitoid *T. chilonis ishii* has the capacity to suppress LCM populations.

The above research objectives were achieved by a series of field and laboratory experiments. To understand the parasitism and attack rates of *T. chilonis*, field trials were conducted at three locations in Samoa. To study the lifetime fecundity of *T. chilonis*, different ages of LCM eggs were offered to female *T. chilonis*. Females emerged from above experiments were used to examine the effects of female age on parasitism rate and sex ratio. Female *T. chilonis* were further used to check oviposition behavior through offering LCM and DBM eggs. Finally, effects of temperature on life history parameters of *T. chilonis* were studied using incubators set at different temperatures in laboratory.

From the research studied, some of the conclusions obtained was that the Samoan population of LCM completed its life cycle in 29±0.28 days at 27°C which was longer than the Chinese and Malaysian populations but shorter than Indonesian populations. The field and laboratory trials indicated that LCM preferred to lay its egg on mature leaves compared to younger leaves. LCM oviposited more eggs on the abaxial and bottom middle section of the leaf. Duration of oviposition of Samoan LCM was longer compared to Malaysia and Indonesia and produced large egg masses in the five days. The study also showed that the *T. chilonis* strain of Samoa parasitized and developed in young eggs of LCM, fed on old ones and caused high mortality on eggs. *T. chilonis* females had a high reproductive potential (female-biased sex ratio of their offsprings) and laid most of their eggs within the first four days after emergence. This is an important attribute of *T. chilonis* as its longevity in the field is short (about 4 days).
USP Alafua held its orientation for the first semester of 2017. A new year and a new semester always brings new faces to the campus to join continuing students of the University studying at Alafua campus. As usual, this year’s orientation started with the Traditional Samoan Ava Ceremony hosted by staff and Samoan students of the campus to greet and welcome new students.

Campus Director, Leatuaolevao Ruby Va’a welcomed all students to another year at Alafua especially the new students from Samoa and other Pacific Islands. She encouraged the students to look at the strategic plan 2013-2018 and what it is about. She also mentioned to visit the University website often and that communication is what’s most important. The staff of Alafua campus are here to support and help them move forward with their studies.

Head of SAFT and Director of IRETA, Assoc. Prof. Mohammed Umar gave the final remarks of the opening ceremony. Firstly, he thanked the staff for preparing the Ava Ceremony as it showcases how strong Samoan people hold on to their culture and traditions. He then gave general comments about Agriculture. He mentioned the new policy of the University for this year in terms of online enrolment, that all students should enroll courses online and that they should enjoy their time while studying at Alafua. “Your life is in your hands” he said to the students and wished them the best of luck and enjoyable stay at USP Alafua campus.

After the opening ceremony, the students toured around the campus, visiting the library, student academic services, computer lab and meeting staff members in charge of various sections within the school.
An increase in agriculture student numbers was seen for this year’s first orientation for students studying agriculture. Masters of Ceremony, Mr. Ioane Malaki welcomed new students and also continuing students of agriculture.

The program started with opening remarks from the Head of School, Assoc. Prof. Mohammed Umar. New University policies were clearly explained during the orientation. Assoc. Prof. Umar mentioned that the policy of completing 75% of 100 or 200 level courses in order to take higher level courses is now being strictly enforced. Postgraduate courses are now five and one course will be offered during flexi-school so that postgraduate students can still finish within a year. To be selected to scholarships for Postgraduate and Master’s Degree, students must have a GPA of 3.5 and above. Vocational practical of 20 weeks course AG384 should be schedule properly so there won’t be problems with other courses.

Senior lecturer of Agribusiness, Dr. Bhati explained the study program planning and pathways for various Agribusiness qualifications. He also mentioned the research projects and the new postgraduate diploma programme of 5 courses where AG401 will be offered during the flexi-school. Senior lecturer of Animal Science, Dr. Siaka Diarra talked on pathways for various Animal Science qualifications and importance of attendance in lecturers, tutorial, practical and seminars. Dr. Nandakumar Desai talked about enrolment and will be responsible for first year students and postgraduate students. He talked about AG383 Research project management skills course and how it is operated.

Mr. Falaniko Amosa, lecturer in Crop Science will be responsible for 2nd year and 3rd year students and he talked on pathway for various Crop Science qualifications and also flexi-school for summer and winter periods. Prof. Manuel Palomar discussed flexi-school for AG268 and AG464 while Dr. Sonny Lameta talked on Industry Liaison. The program ended with Mr. Ioane Malaki, of Agricultural Engineering and he talked about AG384 the vocational practical experience and how the training is managed, as well as inter-school debate series and participation in campus activities.
STAFF PROFILE

Name: Anzac Peleti

Post: USP Alafua Security

Future career:

Mr. Peleti is a family man and his goals for the future is take care of his family and work the family plantation.

Background: Mr. Peleti comes from a family of 7 brothers and 3 sisters. He is married with two beautiful girls. He enjoys rugby, volleyball and going to church on Sundays.

Message:

Mr. Peleti wishes the staff and students of Alafua a wonderful year. He encourages the students to do well in their studies and all the best with 2017.

Name: Alakalaine Kirisome Alatise

Staff post: Library Assistant

Future career: Full time gardener at home sweet home

Background: Second to the eldest in a family of four with three sisters and a brother. Happily married and enjoying the company of five grown children. Always a pleasure working at USP Library and crossing path with many different kinds of people. Currently doing an online course for the American Library Association in the acquisition and cataloguing module. She enjoys reading, gardening and listening to gospel music.

Message:

It’s never too old to get educated, so aim high and remember the sky is the limit.
Head of School and Director of IRETA, Assoc. Prof. Mohammed Umar traveled to the USP Savaii Centre with section heads of the USP Alafua campus on the 1st of February 2017, for the Savaii student’s orientation and information sessions. Information session and registrations at USP centre library was held in the afternoon followed by the information session at Lalomalava Iva.

On the following day, student registration started in the morning followed by SAS consultations, preliminary and foundation student sessions with CFS Coordinator, success at USP programme, library session and moodle training.

The afternoon session started with an opening prayer by Rev Tonu Mauafu followed by the welcoming remarks and cultural salutation by Seulgee Samelu, Coordinator of Student Academic Services. Head of SAFT and Director of IRETA, Assoc. Prof. Mohammed Umar spoke during the session. The HOS spoke about the potential for agriculture in Samoa and the employment opportunities that agriculture provides. He encouraged the students and teachers to consider agriculture as a profession and to develope their land as technically qualified farmers. Become an employer rather than working for someone else. Samoa imports most of its basic food when a lot of these foods can be grown locally. He wished all students well in their studies.

USPSA President: Frank Omelanga

Country: Solomon Islands, Malaita Province

Age: 48 years old

Status: Bachelors of Agriculture final year student majoring in Applied Science and happily married with 3 children.

Motivation: Mr. Omelanga was nominated by the Solomon Islands Student Association to run for presidency of USP Student Association Alafua campus. With all Mr. Omelanga’s commitments and responsibilities to his studies, he saw the need to take the opportunity and support from his friends.

Future plans: Mr. Omelanga is determined to make this year a better year with more fun and excitement. Activities are already in line for 2017 such as social nights, sports activities, Independence Day celebrations, community service projects and etc.

Message: President Omelanga only wishes for everyone to come together and work together as one unit. He needs the students and staff support because without them, he cannot fulfill his duties as president. He urges that all students should participate in all student functions and enjoy our time here in Alafua as students of the University.
18 reasons to buy certified organic food

The term "Organic" on a food or beverage label is more important to look for than most of the other feel-good marketing terms you may see; such as natural sustainable, or eco-friendly; as only "organic" has a legal, enforceable, verified meaning.

Short of having your own farm or spending a lot of time investigating your local farms, certified organic foods and beverages are as close as you can get to guaranteeing that the foods and beverages you buy and feed to your family are safe, healthy, and clean.

When you pick up something bearing the USDA ORGANIC label of the CANADA ORGANIC BIOLOGIQUE CANADA label you know that it was:

1. Grown from organic, non-GMO seeds or plants
2. Nourished with natural organic fertilizers and soil amendments
3. No sewage sludge was never used
4. No synthetic insecticides, fungicides, or weed-killer were applied
5. No synthetic post-harvest treatments were used
6. Only certified organic agricultural products were used
7. No artificial colors, flavors, or preservatives were added
8. It wasn’t irradiated
9. No GMO ingredients were used
10. May contain more vitamins, minerals, enzymes, and micronutrients than conventionally raised food
11. Supports the preservation of heritage and locally-adapted varieties
12. Build soil organic matter and sequester carbon, helping to mitigate rising atmospheric carbon dioxide levels
13. Are pollinator-friendly, protecting bees and wild pollinators
14. Help preserve open space
15. Don’t expose the people who raised (or the people living next door to them) to synthetic toxins
16. Support a healthy environment for the wildlife in and around the farms
17. Release no genetically modified genes into the wild
18. Protect the streams and lakes downstream from toxic runoff

(By Jean Nick, Organic News & Sustainability http://blog.naturespath.com/18-reasons-buy-certified-organic-food)
**El Nino Affecting Agriculture**

Agricultural activities are expected to continue to suffer from the effects of the recent El Nino weather patterns, the National Weather Service says. National Weather Service assistant director Jimmy Gomoga said the El Nino period from 2014 to 2015 had affected the soil. "Although the El Nino situation has gone and everything is back to normal, the effects are still being felt especially in agricultural activities," Gomoga told The National on Wednesday 11/01/2017. "It takes quite a while for the plants to really take that moisture from the soil so the impacts of the El Nino are still around."

Gomoga said the La Nina situation was needed to stabilize and restore the soil moisture. "We need the La Nina situation to restore the soil moisture," he said.

At the moment the impacts of El Nino will remain because there is an imbalance in the soil moisture," he said. According to a report during the La Nina phenomena, the warmest waters are located closer to Australia and PNG which brought increased rainfall occurrences towards our region.


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**What is Poverty? Not in Samoa**

There is no such thing as poverty in Samoa." So says Ma’agao Keneti Moe of Leauva’a. The 52-year-old comes from Vaitele and she sells fruits of her land at the market. A lot has been said and discussed about this issue in Samoa, whereby some people disagree and some don’t. But for a country like Samoa with rich natural resources and environment, the views of the people differ on this issue. For Ma’agao, she said there is absolutely no poverty in Samoa. “Everyone have their homes and food but it’s just that they want more,” she said.

Ma’ago has six children and her daughter is the only one with the job to support their family. She told the Village Voice even though they don’t earn much but they are happy and that’s why she says there is no such thing as poverty in Samoa.

Bitter Gourd Hybrids Trial

This beautiful bitter gourd comes from good stock. Both parental lives of hybrid ‘NBH-FIGO’ recently released by Noble Seeds were bred by the World Vegetable Center.

Noble Seeds, a contributor to WorldVeg’s global cucurbit breeding program, said that ‘NBH-FIGO’ has outperformed other bitter gourd hybrids in trials in India.

Early maturity is one of its most attractive characteristics. Most commercial bitter gourd hybrids take around 60-65 days to attain marketable maturity, but ‘NBH-FIGO’ has broken the threshold and matures in 49 days. This extremely high yielding bitter gourd has moderate resistance to powdery mildew and a high female to male flower ratio.

Bitter gourd is grown on approximately 340,000 hectares across Asia, with India and China accounting for more than half the production. It is consumed in soups, stews, curries, and salads. It has been used as a folk remedy for a range of ailments, including type 2 diabetes. The fruit contains at least three active substances with anti-diabetic properties, including charantin, which has been confirmed to have a blood glucose-lowering effect, vicine, and an insulin-like compound known as polypeptide-p. These substances work individually or together to help reduce blood sugar levels.

(Source: https://avrdc.org/bitter-gourd-hybrid-released/)

Ocean management vital for sustainability

Identifying and managing the key resources in ocean management is vital for its sustainability. These were the words of Wildlife Conservation Society Director, Sangeeta Mangubhai. Ms Mangubhai said those human and financial resources played a vital part in sustaining our ocean needs. "We got to move away from saying the action is that we need more resources, which includes human and financial resources,” she said.

"We need to focus on the opportunities out there that we should be tapping into, like do we need to look at different schemes in Fiji which might bring back good resources towards good ocean management."

New generation cooperatives

In an increasing market-driven world, agribusiness cooperatives are strengthening vertical and horizontal links along the value chain to be more reliable and profitable.

Cooperatives can strengthen vertical and horizontal links along value chains, which respond to market incentives. As market needs change, the global cooperative movement requires support to revitalize both governance structures and business strategies during a period of transition.

What brought about the change from old style to new generation cooperatives? Professor Michael Cook, a leading agricultural cooperative specialist from the University of Missouri, says that, in the US a generation of cooperatives emerged in the 1990s and early 2000s as a reaction to the agricultural crisis of the 1980s. As the agricultural depression of the 1980s continued, rivalry increased in this competitive environment. "Bottom line, new generation cooperatives required more upfront capital from members, which in turn created a greater incentive to follow the new rules regarding delivery of quantity and quality. The new rules also acted to balance supply with demand and consequently reduce volatility of commodity pricing."

New cooperatives may encourage young people who are giving up on farming for the promise of a different life in a big city. The average age of farmers in Africa is around 50 to 55, says Pierre Van Hedel, Director of the Rabobank Foundation. "Young people find the idea of selling mobile phones in large cities much more modern and appealing, but that market is already pretty much saturated. There should be more incentive for younger generations to pursue a career in farming and this requires that they can purchase and sell their products through a cooperative," Van Hedel says. "If their farms are slightly larger, they can substitute manual labour for machines and start using more modern technologies, including more accurate weather forecasts, superior sowing seeds and cattle species, and soil investigation," he says. These inputs can be supported through new cooperatives.

The Journal of the South Pacific Agriculture (JOSPA) is a peer reviewed Agricultural journal which publishes research articles, critical reviews, general papers and short communications in tropical agriculture. It has highly qualified editors and a transparent peer review system which normally takes about 6 to 8 weeks from submission of manuscript to the decision with reviewers’ comments. We are inviting contributions relevant to agriculture in the tropics for JOSPA’s Volume 20.

Please send manuscripts as email attachments to the editor at
sunil.singh@samoa.usp.ac.fj

Deadline for submission has been extended to 31 October 2017. Guide for authors will be provided upon request. Refer to section on Submission of Manuscripts for additional information required on submission.

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