



Pacific Pest Info

Pest & Quarantine Information
SPC Plant Protection Service

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1. PNG Fruit Fly Programme (PNGFFP)

Emi Tora Vueti, Co-ordinator, Fruit Fly Programme (FFM)

The PNGFFP started in 1998 with funding provided by the UNDP, AusAID and SPC project on Regional Management of Fruit Flies in the Pacific and ACIAR PNG Fruit Fly Project. The ACIAR Fruit Fly Project funding ended in June 2002. SPC Fruit Fly Management (FFM) has continued assistance for PNGFFP. It was recommended at the terminal review of the ACIAR Fruit Fly Project that ACIAR funding be extended for three years. To date, the achievements of PNGFFP include the availability of knowledge and data on the fruit fly fauna in PNG, development of field control measures, on-going public awareness on fruit fly management, establishment of fruit fly colonies and technical capacity building on fruit fly control and management for staff in the National Agricultural Research Institute (NARI) and National Agricultural Quarantine and Inspection Authority (NAQIA). The outcome of the terminal review has resulted in the extension of the ACIAR Fruit Fly Project beginning in 2004.

Research on heat tolerance testing of mango fly has commenced in February 2003. There are 13 fruit fly species of economic significance in PNG, two of which (*Bactrocera cucurbitae* and *B. papayae*) already have had heat tolerance studies carried out in Hawaii and Malaysia respectively. PNG authorities will now have to work on eleven fruit fly species that have not been researched.

The Co-ordinator visited PNG in February and carried out 'hands-on' skills training on heat tolerance testing. There were meetings arranged with NARI, NAQIA and DAL officials. A field visit to the Pacific Adventist University (PAU) farm was also organised. Discussions were also held with NAQIA's acting Managing Director Mr. Elijah Philemon on developments with High Temperature Forced Air (HTFA). It was recommended during the visit that to carry out research on the heat tolerance of the 11 species, it was necessary to identify the potential crops for exports. This list of priority crops will enable more focused research and may fast track the HTFA development work.

2. Venomous snake found in Pohnpei, FSM

By Konrad Englberger, unpublished information by Donald W. Buden and John Wichep

A banded krait, *Bungarus fasciatus*, was found dead in a dumpsite on Pohnpei, Federated States of Micronesia on 13 November 2002. Its precise origin is uncertain but it probably was brought to the island aboard a foreign vessel originating from Southeast Asia.

The banded krait, *Bungarus fasciatus*, is a highly venomous snake of the cobra family Elapidae, and ranges throughout southern Asia.

Van Wallach, Museum of Comparative Zoology, Harvard University examined the female snake and revealed that the gall bladder and several short sections of the intestine had been removed from the specimen. That the snake was found dead in trash of apparently Oriental origin, and with part of the viscera removed suggests that it died or was killed elsewhere on Pohnpei, and the parts (at least the gall bladder) probably removed possibly for medical purposes before it was brought to the dumpsite.

This is cause for concern to know there are people on Pohnpei who use this kind of snake for medicinal purposes. Each month 50 to 100 fishing boats from Asian countries visit Pohnpei to load or unload fish.

3. Wallis and Futuna Extension Activities

Salend Kumar – Agricultural Extension Assistant

To improve plant protection services to Wallis and Futuna a recent visit by PPS Extension Assistant, Mr. Salend Kumar, helped identify information and training needs of small-holder farmers. Using participatory extension methods and working together with the National Plant Protection Officer (NPPO) and local NGO's the exercise underlined the importance of participatory extension as a recognised and proven method for technology transfer and for human resource development.

Traditional farming systems in Wallis and Futuna largely practice some form of Integrated Pest Management (IPM). Intercropping, rotational cultivation and land fallow are common practices. Pest control practices, a combination of biological and chemical methods, are built into the cropping systems.

PPS promotes IPM as an effective agricultural practice for pest management and for sustainability of the environment.

On the academic front PPS is keen to promote plant protection in the agricultural curricular for high schools in Wallis and Futuna. School officials showed great interest in taking up plant protection studies and PPS is helping adapt the curricular for the high schools in Wallis and Futuna.

The long-term strategy is to strengthen plant protection studies in the agricultural curricular of high schools and vocational training centres across the Pacific.

4. Pacific Quarantine Operations Manual goes electronic

PPS is funding the production of an electronic quarantine manual to replace the thick, cumbersome operations manuals now used in the PICTs. The development of the electronic manual is in response to a specific request by the Pacific Plant Protection Officers (PPPO) with the aim to harmonise quarantine regulations across Pacific island countries and to have a single reference guideline. The manual will have existing laws in trade facilitation applicable to the Pacific, general quarantine operations and border control measures available at the fingertips of quarantine staff. The emphasis is to assist national quarantine

operations to be more compliant with global trends in both World Trade Organisation (WTO) and Sanitary and Phytosanitary applications (SPS).

The manual will have three sections: Quarantine standards including phytosanitary standards, Policy and Administration (who does what and why) and Operations (pest identification, treatment). Ultimately, the goal is to facilitate trade and to speed up the process.

Most references are hyper-linked to other sources of information such as websites or other existing literature.

The manual will also contain information for the public and what is expected of them when dealing with quarantine issues or trade.

The days of carrying around heavy, bulky quarantine manuals will soon be over. Bob Ikin, with years of experience in plant protection and quarantine in the Pacific and former head of PPPO, is the consultant putting together the manual. He recently had it road-tested to agricultural staff at SPC-Suva.

5. Pest List Database comes to American Samoa

Dick Vernon – Information and Extension Coordinator

The Department of Agriculture, the American Samoa Community College and SPC Plant Protection Service worked together to introduce the Pest List Database (PLD) to American Samoa. The PLD is an information system that stores data on pest occurrences within a country, and which has as a main purpose the production of an instantaneous 'List of Pests' for any agricultural commodity for which trade is planned.

The workshop was opened by the Director of Agriculture, Apesa'i Taisane, and attended by representatives of the Extension Service, Quarantine Service and the Community College. It was preceded by a demonstration of the system to a wider audience who had an opportunity to discuss its purpose and impact.

The results of previous pest surveys and data from publications were used to stock the system with American Samoan pest occurrence records: the database starts with over 1,000 such records covering 519 pest species. Manu Tuiono'ula, Crop Protection Officer, Extension Division, is arranging for the further input of data from eight additional reports. When that is done the system should contain occurrence records of most agricultural pests that have been recorded in the country, and as such it will be a useful tool for plant protection extension, research and quarantine staff, and a useful repository for new agricultural pest records. Another function is to record pest interceptions by the Quarantine Service, for which it provides a monthly internal administrative report and country reports that can be sent to trading partners to easily let them know the interceptions of pests on their exports. The system can also provide a list of agricultural weeds found in the country.

SPC acknowledges the permission of the Director of Agriculture, Tonga, to make use of Mr Mana'ia Halafihi, Head of Information Section, as a resource person for this workshop. Mr. Halafihi is an experienced manager of the PLD system in his own country. The workshop brings to seven the number of Pacific Island countries using the system. Information about the PLD can be obtained from the PPS Website www.spc.int/pps or from Makelesi Kora at makelesik@spc.int

6. USP to get new molecular biology laboratory: SPC collaboration

Richard Davis – Plant Pathologist (Virologist)

Through the 1990s, tools of molecular biology revolutionised plant pathology in the detection and study of diseases that were previously very difficult to deal with using conventional methods. This technology has greatly advanced the study of plant diseases caused by viruses and virus-like plant pathogens. Today, access to molecular diagnostic tools has become as crucial to a plant pathology laboratory as the availability of microscopes.

The Institute of Applied Sciences, USP Suva, is now in the final stages of establishing many of these molecular tools in a laboratory that already has a track record as a centre of excellence in the provision of analytical services. The equipment and facilities in this laboratory will be suitable for detecting a wide range of plant viruses and similar pathogens as well as for conducting DNA fingerprint analysis of key crops in the

region. SPC-PPS is contributing (from EU funds) towards refurbishment costs for the laboratory and is purchasing some of the bench top equipment needed.

Negotiations are now underway with the Fiji Quarantine and Inspection Division to establish suitably rigorous protocols for quarantine secure importation and standards to ensure total laboratory containment. Once in place, correctly treated and packaged plant samples from other Pacific Island nations could be received by PPS and tested in the new laboratory, making this a truly regional facility of benefit to all Pacific Island Countries and Territories. The end result will be that plant protection organisations in the South Pacific will have ready access to diagnostic test facilities in the Region.

In the first instance, the laboratory facilities will be used to index yam and taro for key virus diseases using state of the art detection methods developed as part of the SPYN and Tarogen projects. Two training workshops are planned in mid 2003 to ensure smooth technology transfer. This virus screening is necessary for safe distribution of yam and taro accessions held by the Regional Germplasm Centre. It is also planned to use the same equipment to establish a suite of diagnostic tests for other key pathogens of regional concern.

7. SPC & NZMAF take message to Pasifika Festival

One particular stall at the *Pasifika Festival* got more than its fair share of inquiring looks from the estimated 140,000-strong, mostly Pacific islanders who flocked Western Springs 8th March, 2003 to witness and participate in the Festival. Those who dropped by to take a closer look were not greeted with the head-spinning aromas of Pacific food, handicrafts and the like but a stiff education on quarantine issues.

The stall was put up by New Zealand's Ministry of Agriculture and Forestry (MAF) "*Protect New Zealand*" campaign to raise awareness on quarantine issues. The campaign targets specifically Pacific islanders travelling with quarantine risk items. Fiji, Samoa and Tonga are the main countries targeted in the campaign which was launched last year. SPC's Plant Protection Service assisted the launch of the campaign in the three respective countries towards the end of last year.

Visitors to the stall were given free brochures, posters and sun-visors promoting the quarantine message. Brochures in Tongan and Samoan languages were also distributed.

The Festival organisers through MAF Biosecurity invited PPS Information Officer who assisted in giving out information on quarantine. PPS quarantine materials together with awareness materials from Samoa Quarantine were also displayed and given out to the public.

SPC's Plant Protection Service works with 22 Pacific island countries promoting the quarantine message and the collaboration between SPC and NZMAF was a logical step in pooling resources and targeting Pacific people with the quarantine message at a major events like the '*Pasifika*' Festival.

Most of the Pacific people who stopped by, mainly Tongans, Samoans, Cook Islanders and Niueans, enquired why they can't take food stuffs like sausages, fresh corned beef, canned corn beef, apples, cheese and flower cuttings.

Fresh meat, fruits and plant cuttings are some of the quarantine items not allowed entry in most countries because of the threat of introducing new harmful pests and diseases.

Adrienne Tollemache, *Protect New Zealand* Program Co-ordinator, said that the Pacific community is an important audience and *Protect NZ* aims to provide information about pests and disease risks and the actions people can take to minimise their introduction and spread. *Pasifika* is a crucial component of the programme, providing a platform to communicate these messages to the community.

Also assisting at the *Protect NZ* stall was artist/musician Pati Umaga. Pati charmed the crowds with his usual humour as well as emphasising the "Declare, don't get fined" message. He also facilitated the game competitions where players learned some facts on biosecurity while enjoying a game of bingo.

SPC Plant Protection Service, with likely help from MAF Biosecurity of New Zealand, will next target the thousands of Pacific islanders coming to Fiji for the South Pacific Games in June this year. They will support the efforts now underway by Fiji Quarantine to inform regional athletes and officials of the risks involved when moving quarantine items. Close to 5,0000 visitors, athletes and officials from over 20 Pacific island countries are expected to attend the two-week event.

8. USA South Pacific Scholarship Programme

Dick Vernon, Fred Brooks, Russell L. Chapman

The USA Department of State is supporting public and private non-profit organizations to organize and carry out an academic exchange program for students from the sovereign nations of the South Pacific. Students from the following nations are eligible to apply for these scholarships: Cook Islands, Fiji, Kiribati, Niue, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. The deadline of application is 02-May-2003.

The sponsor provides support to organize and carry out an academic exchange program for students from the sovereign nations of the South Pacific. The grantee will be responsible for all aspects of the program, including publicity and recruitment of applicants; merit-based competitive selection; placement of students at an accredited U.S. academic institution; student travel to the U.S.; orientation; up to four years of U.S. degree study at the bachelor's or master's level; enrichment programming; advising, monitoring and support; pre-return activities; evaluation; and follow-up.

Fields of study under the program have included public administration, journalism, education, environmental studies, agriculture, and other fields. Students selected for these scholarships have enrolled in four year undergraduate degree programs, or in master's degree programs. The latter have generally involved one year of preparatory U.S. study followed by up to two years of master's degree study. This grant award will cover the entire program in the U.S. for the students selected. Students are expected to return home following the completion of their U.S. programs. Proposal budgets should include all costs for students to complete the entire four years of degree study in the U.S. The grant will remain open for approximately five years.

For further information consult the Internet site below and / or contact: Marianne Craven at ECA/A, Room 202, Annex 44, 301 4th Street, S.W., Washington, DC 20547 U.S.A. E-mail: mcraven@pd.state.gov. Tel: 202-619-6409 Fax: 202-205-2452.

<http://a257.g.akamaitech.net/7/257/2422/14mar20010800/edocket.access.gpo.gov/2003/03-6730.htm>

9. Household food production promotes a healthy and nutritional way of life

Salend Kumar – Agricultural Extension Assistant

“Gardening brings together family members and ensures a nutritional life,” was the main message at the launch of the Wainibokasi Hospital Garden Project recently.

Mick Lloyd, SPC Plant Protection Adviser, officially launched the Project, which will be used mainly as a demonstration to encourage rural households to take up this activity.

Medical and agricultural staff are promoting household food production to the community as an alternative way to keep healthy and at the same time provide nutritious food for rural families.

Sub-divisional Medical Officer, Dr Temo Waqanivalu, highlighted that Fiji is experiencing a dual burden of infectious and non-communicable diseases as people adopt new lifestyles and change their eating habits.

SPC-PPS promotes natural methods of food production combining the best management practices to supply households with fresh, healthy and nutritious foods. Chemical pesticides are generally not promoted in household food production because it is hazardous to the environment.

In addition, household food production is environment-friendly and has the advantage of advancing social unity amongst family members and the community as they share ideas and spend time together carrying out an outdoor activity.

SPC-PPS is collaborating with Fiji's National Food and Nutrition Centre to implement the three-year project to promote home gardening.

Household food production using sustainable best management practices is a good alternative for urban and sub-urban communities to produce nutritious foods. (*Source: Information Section, Fiji MASLR.*)

10.PPS Staff travel calendar

Dates	Country	Staff	Purpose
05-18 Apr 03	Cook Is, French Polynesia	Sada N Lal	Entomology work
03-09 Apr 03	Vanuatu	Fereti Atu	Taro Beetle
03-06 Apr 03	New Zealand	Warea Orapa	Invasive species planning workshop
07-11 Apr 03	Cook Is	Mick Lloyd	OCO Annual Conference
07-18 Apr 03	Guam	Konrad Engleberger	Quarantine training
12-17 Apr 03	French Polynesia	Sidney Sum a	Fruit fly control
10-26 Apr 03	Vanuatu	Warea Orapa	Vanuatu weed surveys
25 Apr – 2 May 03	Hawaii	Ema T Vueti	Fruit Fly Area wide IPM Meeting
05-09 May 03	Cairns, Australia	Konrad Engelberger Warea Orapa	Chromolaena Biocontrol Workshop
19-23 May 03	Vanuatu	Dick Vernon	Pest List Database Workshop

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