Pacific PEST info
Pest & Quarantine Information
SPC Plant Protection Service

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Taveuni still free of taro beetle

A survey conducted by SPC cleared Taveuni of the dreaded taro beetle. PPS Taro Beetle Technician, Fereti Atu, worked with Fiji MASLR staff to conduct the survey to determine if taro beetle was present based on reports of taro from Taveuni showing symptoms of taro beetle damage.

The team began the survey at the alleged sites at the southern tip of the island at Delaivuna settlement and Qarawalu in early May. Further surveys were conducted at Nalovo and Navaca. The team also visited the middleman who supplied the consignment alleged to have contained the taro corm with typical taro beetle damage.

In addition to the good news that the taro beetle has not reached Taveuni, the survey team managed to gather valuable information on the 29 farms and farmers they visited.

Typical taro beetle damage on corm

Taveuni OIC Agriculture John Cox, will start monitoring the farms and the localities originally suspected of being affected by taro beetle for evidence of the pest.

Taveuni island is the biggest producer of export taro.

Palau entomology work

SPC Entomologist Sada N. Lal visited Palau, 10–18 May, together with SPC Plant Protection Micronesia Coordinator Konrad Englberger. The two specialists carried out the following activities.

Fernando Sengebau, Head of Plant Protection and Quarantine, Palau, work on rhinoceros beetle.

Rhinoceros beetle management

Training on pheromone trapping of the beetle was provided and virus inoculation and field releases of the beetle demonstrated. The SPC specialists surveyed the extent of rhinoceros beetle damage in Palau.

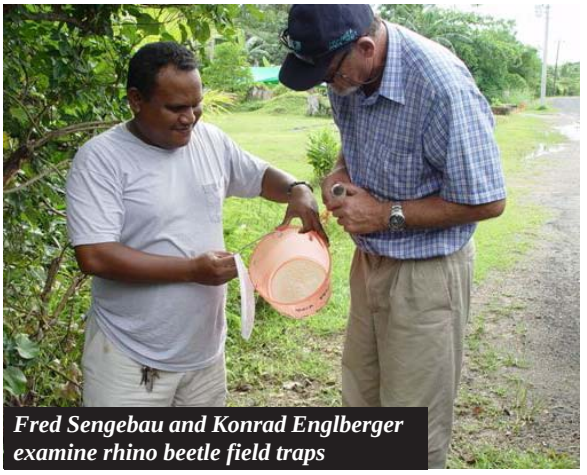
Whiteflies

The most common whitefly present in Palau is the spiralling whitefly, *Aleurodicus dispersus*, but it is kept under control by the introduced natural enemy, *Encarsia haitiensis*. Only a few guava plants in backyard gardens were seen with severe infestations by this whitefly species.

There was severe infestation of the ornamental plant *Duranta erecta* by the new whitefly *Aleurotrachelus trachoides.* Discussions with Palau plant protection authorities resulted in plans to introduce the bioagent *Encarsia formosa* for this whitefly.

Fruit fly management

Discussions were held on the current and future plans for fruit fly management in Palau. Fruit fly



Fred Sengebau and Konrad Englberger examine rhino beetle field traps

traps and lures will be provided to Palau to carry out surveillance work. A field demonstration on fruit bagging and bait spraying is planned.

Seminar

A seminar on rhinoceros beetle and taro beetle management was held for agricultural staff and the invited public.

Plant disease survey for Rotuma

Last year, Fjii Ministry of Agriculture, Sugar and Land Resettlement (MASLR) requested that a joint team assess the plant health status of Rotuma island, including plant virus and virus-like diseases. The joint SPC and MASLR team conducted the first plant disease survey on Rotuma in May this year. The SPC plant health team members included Richard Davis (Plant Virologist), Jacqui Wright (Plant Pathologist) and Takaniko Ruabete (Nematode Technician). Both commercial and back yard plantings were examined, including many large plots of taro, roadside and domestic bananas as well as some kava plantings.

Samples collected during the survey, including orchid samples, were returned to the LRD SPC plant virology laboratory for testing. Taro samples will be tested at the USP Institute of Applied Sciences laboratory and other samples will be forwarded to several different laboratories for specific diagnostic tests.

This is the first time Rotuma has been surveyed, therefore all records will be new to this location. Some will also be new records for Fiji; 84 plant pathogenic fungal specimens were collected.

No problematic diseases were identified from Rotuma on the important food crops.

Taro

When examining taro, virus-like disease symptoms, suspected to be *Dasheen mosaic virus* or DsMV and Taro vein chlorosis virus or TaVCV, were found at a low incidence in every plot.

Banana

On banana plants, *Banana streak virus* (BSV)-like symptoms in what appeared to be cv. Mysore were common. BSV is common throughout most banana production areas of the world, especially cv. Mysore. This virus, however, has never been confirmed on Rotuma. Importantly, the SPC/MASLR team did not observe any bunchy top-like disease symptoms, caused by *Banana bunchy top virus* (BBTV), and only three leaf samples from banana plants that had slightly abnormal upright growth were collected.

Other plants

The major rootcrops, taro and cassava, were surveyed thoroughly in all locations. Fruit trees, local tree species, vegetables and ornamentals were also surveyed.

Nematodes

Rotuma was included in Orton Williams's nematode survey of Fiji in the late 1970s. In that survey only three crops, *Cocos nucifera*, *Colocasia esculenta*, and *Abelmoschus manihot,* and eight species of plant parasitic nematodes were recorded. The three crops are in the current survey. A total of 18 crops were surveyed including root crops, vegetables, and fruit trees. The nematode samples were processed at SPC Plant Pathology lab before shipping to CABI Nematology laboratory in the UK for authenticated identification.

Helpdesk established for Import–Export Biosecurity Technology Centre

PICTs will now have direct access to technical advice on trade issues with the establishment of a helpdesk at the Import–Export Biosecurity Technology (IMPEXTEK) Centre. The helpdesk was established to provide PICTs with technical advice on:

- Import risk analysis and development of national import protocols
- Market access facilitation
- Trade-relate biosecurity issues

The facility will receive, process and respond to queries from stakeholders and can be reached at impextek@spc.int.

An important component of the facility is accountability: each query is recorded and tracked for response time, assigning to technical specialists, logins, and service levels.

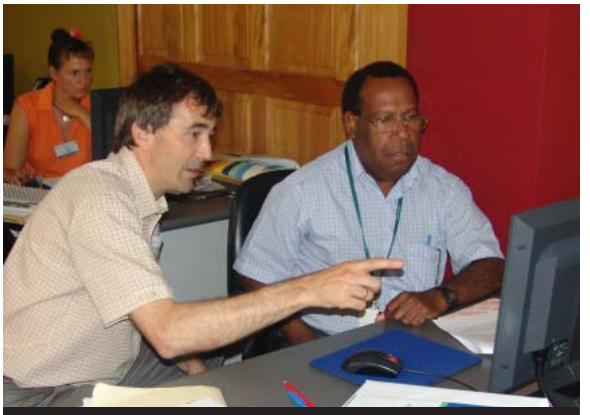
The IMPEXTEK is an initiative of the Pacific Plant Protection Organisation (PPPO) and implemented by the Biosecurity and Trade Facilitation component of the SPC Land Resources Division. It is funded under the Pacific Agreement on Closer Economic Relations Regional Trade Facilitation Programme (PACER-RTFP).

Market access of Pacific produce will improve trade and quality assurance becomes critical

International Phytosanitary Portal (IPP) training workshop

A sub-regional workshop was held in Suva, 23–27 May, with the aim to increase national capacity through training of official contact points in the use of IPP. IPP is an Internet-based information system designed to hold phytosanitary information published in accordance with the International Plant Protection Convention (IPPC) and decisions by the Interim Commission on Phytosanitary Measures (ICPM).

Participants presented country statements on national information exchange processes and



Jan Breithaupt (IPPC) explains a point to Roy Masamdu of PNG NAQIA

received on-line training on national plant protection organisation (NPPO) reporting obligations including pest reports, phytosanitary restrictions, requirements and prohibitions, list of regulated pests and description of NPPOs.

Participants included Timothy Temukon, Vanuatu Quarantine; Roy Masunda, PNG National Agriculture Quarantine and Inspection Service (NAQIA); Kirifi Pouono, Assistant CEO, Samoa Quarantine; Leon Mu, French Polynesia; Maja Poeschko, Entomologist, Cook Islands; Rémy Amice, Plant Protection Officer, New Caledonia; Fernando M Sengebau, Head of Plant Protection, Palau; Crispina Konelio, Quarantine Officer, Niue. There were others also from national quarantine services.

The workshop was conducted by Mr Jan Breithaupt of the IPPC Secretariat at FAO Rome and assisted by Sione Foliaki , Head of Quarantine and Deputy Director of the Ministry of Agriculture, Tonga.

Makelesi Kora-Gonelevu (LRD information assistant) shows Krispina Konelio of Niue Quarantine the operation of information databases

Jointly organised by the SPC-based Secretariat to the Pacific Plant Protection Organisation (PPPO) in collaboration with IPPC, the training focused on the exchange of official phytosanitary information, and information management for decision-making. The PPPO Secretariat is located within the LRD's Biosecurity and Trade Facilitation programme.

The IPP system has recently been upgraded with improved features to allow IPPC contracting parties to use the system to meet their national information exchange obligations under the IPPC.

Vanuatu: on-farm bio-pesticide research

Comparing the effectiveness of bio-pesticides, (natural pesticides) using on-farm trials is the objective of a collaborative research by SPC LRD Extension, Vanuatu Quarantine and Inspection Service (VQIS) and DSAP Vanuatu.

LRD Extension Assistant Salend Kumar travelled to Vanuatu in early May to work with national agricultural staff and selected farmers, setting up screening trials. Farmers selected for the on-farm trials had previously participated in the joint PPS and Plant Genetic Resources (PGR) participatory extension training held on the island of Santo last year. The home-made natural pesticides being tested are derris root extract and chillies. The commercial bio-pesticides are pyrethrum, derris dust and Dipel. These biologically derived pesticides are environment friendly and leave no chemical residues in food crops — unlike some artificially manufactured pesticides.

Commercial farmers tend to like to use manufactured pesticides because of the quick positive results achieved. Farmers demonstrated general lack of awareness of alternative natural pesticides that they can consider in their pest management strategies. The broader benefits from using bio-pesticides, including a safer environment and wholesome crops, are not widely recognised by farmers. Research efforts such as this collaboration with Vanuatu will help create awareness of alternative and safer pest management practices. SPC will continue to promote and look for alternatives to pesticides.

Salend also helped plan the establishment of a proposed varietal collection of *Abelmoschus manihot* cultivars (known locally as island cabbage or *aelan kabis*). There is a need to record and establish different varieties collected by farmers to sustain biodiversity for this traditional island vegetable.

Bele cultivar with red stems

Fiji Organic Association seeks recognition

The Fiji Organic Association (FOA) met at Sigatoka Research Station recently to review a new constitution and put in steps to register the organisation in Fiji.

FOA members are made of a cross-section of the community representing government, school teachers, NGOs, entrepreneurs, farmers and SPC.

Chairman Sant Kumar discussed FOA developments including the establishment of a regional umbrella organisation for organic farming in the Pacific to be known as the Pacific Organic Producers Association (POPA). USP's Institute for Research, Extension and Training in Agriculture (IRETA) is helping with the establishment of POPA.

Fiji Organic Association meeting in Sigatoka

SPC Entomologist Sada Nand Lal helped compiled the Constitution, which was adopted by FOA members. SPC is also helping design a logo and brochure for the organic organisation.

Fiji now has a certified organic inspector accepted by ECOCERT. She is Sokoveti Namoumou, who worked previously with the Fiji agricultural ministry. Namoumou said her job is to register and monitor farms taking the path towards organic certification. Part of the process is to provide technical advice on growing organic produce. For example, she says, "Chicken manure is allowed to be used in organic farms but we need to know if the manure came from chickens which were given any chemical treatment."

Sweet potato diagnostic key web release

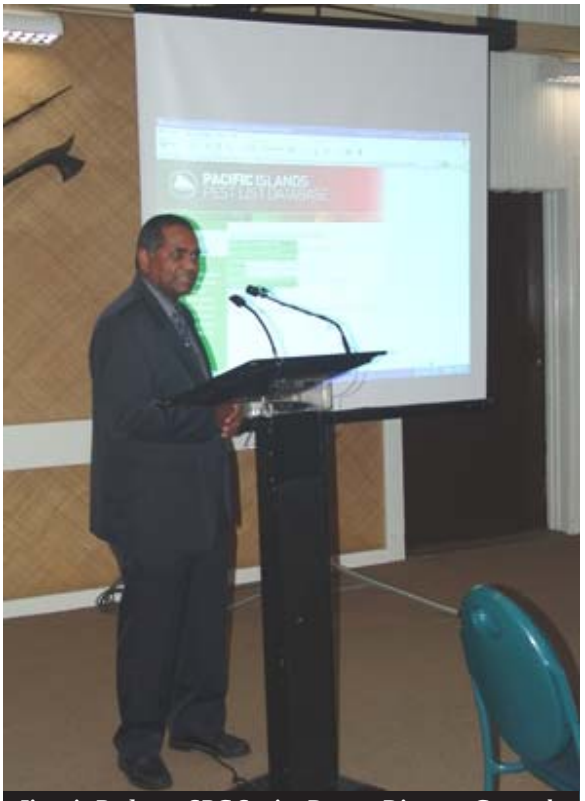
An interactive diagnostic key to sweet potato problems, "Sweetpotato DiagNotes" has been launched on the Internet at http://www.lucidcentral.org/keys/sweetpotato/, or users can request a free CD from cbit@uq.edu.au. Feedback is most welcome, and please report any problems or errors so they can be corrected promptly. Send feedback to Jane O'Sullivan at j.osullivan@uq.edu.au.

Regional pest list database goes on-line

Agricultural trade in the Pacific took a step forward with the launch on 24 May 2005 of the on-line information system, which will facilitate trade of Pacific island produce to overseas markets.

The launching of the Pacific Islands Pest List Database (PIPLD) marks its successful development and testing by the SPC Land Resources Division (LRD) information and communication team. The pest list database stores records of pests that are currently known to affect agriculture, forestry and the environment in Pacific Island countries and territories.

Dr Jimmie Rodgers, SPC Senior Deputy-Director General, told guests at the launch: "Trade in the Pacific has come a long way. Importing countries now require specific Pacific countries to inform them of the pests of the different commodities we export. The required information used to be hand written and sometimes by phone and faxes. Countries now have their own pest list database.



Jimmie Rodgers, SPC Senior Deputy Director-General, welcomed guests to the PIPLD launch in Suva

"The launch of the Pacific Islands Pest List Database is regionalisation of that and basically brings the global community closer to one third of the world which the Pacific island region covers. The main challenges for us are, firstly, to ask ourselves what do we have to trade and, secondly, that despite the fact the Pacific covers one third of the earth's surface the resources we trade are from the primary industry sector – agriculture, forests and fisheries."

PIPLD allows an importing country instant access to Pacific Islands pest lists — a necessary first step to begin trade in a specific commodity. Previously, each Pacific Island country and territory (PICT) kept its own pest list, but with the launch of the system this information is now shared on-line.

The development of country pest lists started under the leadership of former SPC information systems specialist Mr Richard Vernon. Richard began initial work on the Pacific Islands Pest List Database responding to a specific request for such a technical service from the PICTs. The system was further developed and tested by LRD

SPC staff and guests at the launch of the Pacific Islands Pest List Database

information assistants Ms Makelesi Kora-Gonelevu and Ms Sarah Pene.

Additional features of the information system include a function to show the national and regional distribution of a pest. It can also provide a list of host plants for a given pest, which is a requirement necessary to carry out the Import Risk Analysis, another trade facilitation procedure.

The SPC on-line information database can be accessed at www.spc.int:8088/pld. Updating of pest records is restricted to country administrators and the LRD information team. PIPLD will be constantly updated from pest and disease surveys conducted by SPC and from other authenticated sources.

Michel Gauche (right) of the EU Office was also at the launch

SPC LRD information team have helped Samoa, Tonga, Niue, French Polynesia, Fiji Islands, American Samoa, Cook Islands, Vanuatu, New Caledonia, Solomon Islands, Papua New Guinea, Federated States of Micronesia (FSM), Palau and Marshall Islands develop their country pest lists, which are now part of the PIPLD. They also carried out capacity building training on country pest list operations.

The European Union, AusAID and NZAID continue to support plant protection and quarantine services to the Pacific islands through programme funding to SPC Land Resources Division.

Plant parasitic nematode survey in FSM

A survey conducted by SPC found plant parasitic nematodes in the Federated States of Micronesia (FSM) states of Chuuk, Pohnpei and Kosrae. The month-long survey was carried out by PPS Plant Pathology Technician, Takaniko Ruabete, and Konrad Englbeger, PPS Coordinator (FSM), along with local agricultural and quarantine experts.

This was the first time the three states of Chuuk, Pohnpei and Kosrae were surveyed for parasitic

nematodes. The state of Yap was first surveyed in the last quarter of 2004.

Root-knot nematodes were most prevalent infecting a wide range of host plants. In many cases root-knot infection was very severe. The other common nematodes – spiral, lesion, reniform and burrowing – were found in large populations in many samples. Plants affected by nematodes included eggplant, pepper, cucumber, yams, pineapple, taro and banana plants.

While conducting the survey, the team also carried out awareness of nematode pests and the harm they cause the agricultural sector. The team presented information to enhance community knowledge on how nematode pests spread, how to avoid such spread, and also ways to prevent the introduction of nematodes, from both local and foreign sources.

While nematodes are a common problem in the northern Pacific, they are not found to be as extreme as in the southern Pacific Islands where agriculture is more intensive. In the three FSM states surveyed, most of the agriculture is small-scale subsistence farming. People generally have small backyard gardens to meet the needs of their family and large commercial farms are rare.
The survey team comprised the following:
Kosrae State: Palikkun Tolenna (Chief Quarantine Officer), Andrew Palik and Ramos Livaie (Extension Officers).
Pohnpei State: Konrad Engleberger (SPC/PPS Coordinator, FSM) and Klastine Diopulos (temporary Fruit Fly worker)
Chuuk State: Sleeper Sared (Chief Forestry Officer), Junio Iso (Agricultural Agent) and Konrad Englberger (SPC/PPS Coordinator, FSM).

Staff Travel

Dates	***Country***	***Staff***	***Activity***
21 May – 16 June	PNG	Warea Orapa	Weed surveys
2-24 June	Solomon Is	Steve Hazelman	Extension evaluation
19-26 June	PNG	Sada N Lal	Taro Beetle: end-of-project review
18 June – 2 July	Wallis et Futuna	Salend Kumar	Rhino beetle awareness
25 Jun-3 Jul	PNG	Jacqui Wright	Consultations with plant pathologists
27 Jun-3 Jul	PNG	Sidney Suma	DSAP coomodity pathway
25 Jun-2 Jul	Wallis et Futuna	Fereti Atu	Rhinoceros beetle activity

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