Pacific Pest Info
Pest & Quarantine Information
SPC Plant Protection Service

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Those with Internet access can find a wide range of Plant Protection Service outputs on the PPS Web site at www.spc.int/pps***. A CD version is available for those without Internet connection.***

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1. CTAHR solves the mystery of Taro Pocket Rot

Jacqui Wright

Pocket rots have been a mysterious and highly destructive problem for taro growers for many years. In the past year, an important step in combating this problem was accomplished when pocket rot was reproduced for the first time. This was achieved using a new species of *Phytophthora* isolated from taro with pocket rot. The work, done in the laboratory of Dr. Janice Uchida in the Department of Plant and Environmental Protection Sciences, has come as a culmination of years of diligent detective work, commitment to community improvement, and a multidisciplinary problem-solving approach. For growers who have suffered from heavy damage by pocket rots for years, a big mystery has been solved. More details and some good photographs can be found on the CTAHR Internet site:

http://www.ctahr.hawaii.edu/ctahr2001/CTAHRInAction/Apr_02/TaroPocketRot.asp

CTAHR is the College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa.

2. The Plant Protection Service Internet site

Dick Vernon

This month's updates of the PPS Internet site include a list of Fruit Fly Equipment Suppliers, and some new web sites:

- COLEACP (Europe-Africa-Caribbean-Pacific Liaison Committee) offers a database of EU-permitted pesticide residue levels from ACP countries,
- Knowledge Master from the University of Hawaii contains general information on pests,
- a site of Insect Ecology in New Guinea has data on more than 1,600 images of herbivorous insects from New Guinea.

3. Bob Ikin on Pest Risk Analysis in Developing Countries: Capability & Constraints

Dick Vernon

There were two papers from our PPPO* region presented at the International Symposium on Pest Risk Analysis, Mexico, 18-22 March 2002, organized by the Northern American Plant Protection Organization (NAPPO).

Bob Ikin presented a paper on 'Pest Risk Analysis in Developing Countries, Capability and Constraints', The second paper from the Pacific region was by Dr. Barbara Brown, National PRA Adviser, MAF, New Zealand, and was titled 'The New Zealand PRA System – Integrating Pest Risk Assessment, Risk Management and Risk Communication'. Dr. Brown refers in her paper to the Glassy Winged Sharpshooter, which was the subject of our Pest Alert No 34 in January of this year.

Both papers will be available on the PPS Internet site from our next update early in September. Those without Internet connectivity can receive a copy via e-mail or by mail from us on request. Most of the symposium's papers can be found on the NAPPO Internet site: http://www.nappo.org/PRA-Symposium/Symposium.html.

* PPPO: Pacific Plant Protection Organisation

4. SPC/PPS Entomology Update

Emil Adams

Coconut flat moth in the Cook Islands

Mr. Sada N. Lal, SPC Entomologist, recently returned from Cook Islands where he completed a field survey of the coconut flat moth. This pest of coconut is cause for concern and SPC is keeping a close monitor. Mr. Lal also looked at possible sites for the release of the bio-control agent, *Bracon* sp. a parasitic wasp which feeds on the coconut flat moth. This wasp is proven to control flat moth populations in Fiji. While in the Cook Islands Mr. Sada N. Lal discussed with local authorities a set-up to formalise the introduction of the bio-control agent from Fiji. He worked closely with entomologist, Dr. Maja Poeschko, who is currently in Fiji to familiarise herself with the bio-control agent. She will be taking the selected natural enemy with her when she returns home. While here Dr. Poeschko will also attend the 3-day Pests List Database being held at CETC in Narere. Cook Islands Secretary for Agriculture, Mr. Nga Mataio, assisted with Mr. Lal's visit and he expressed great gratitude for the assistance offered by SPC/PPS. Local Agronomist Mr. William Wigmore also worked closely with Mr. Lal.

Home gardens and IPM

Identifying a set of strategies to reduce reliance on chemicals for food production while at the same time preserving a profitable system of home and community gardening is the main thrust of IPM (Integrated Pest Management). The Plant Protection Service of SPC will soon start a joint programme with the National Food and Nutrition Centre (NFNC) of Fiji to promote IPM practices to home gardeners in the urban areas of Suva. SPC Entomolost Mr. Sada N. Lal is taking the lead in this initiative. One of his roles will be to create awareness and publicise the importance of IPM. Similarly, he will provide training in IPM practices to local communities, students, teachers and to keen gardeners. Using different media formats consumers will also be targeted with messages on environmentally friendly food production methods. An IPM committee has been set up and their next meeting will be hosted by SPC/PPS on 30th

August 2002 at Nabua. High on the meeting agenda will be discussions on residual chemicals in agricultural produce sold in the local markets.

Taro Beetle Programme

The ACIAR*-funded Taro Beetle Programme for PNG and Fiji under SPC/PPS is progressing well. SPC Entomologist Mr. Sada N. Lal reported that a field trial is now planted at Navua, Fiji, to be monitored by Koronivia Research Staff and will be the site for testing insecticides against the taro beetle. For PNG, under close supervision by Mr. Roy Masadu of NARI and in collaboration with SPC Entomologist Mr. Sada N. Lal work to test the fungus *Metarhizium* and the virus are well underway. Mr. Lal noted that virus studies in Rabaul have begun where beetle guts are collected and stored in cool storage. Two field trials, one each on Lae and Rabual, have been planted and will be used to run trials.

This corm-burrowing pest of taro is now also found on Ovalua at Lovoni, according to Mr. Sada N. Lal. A joint programme by SPC/PPS and Fiji MASLR is now being planned to head off the spread of the taro beetle pest on the island of Ovalua.

* ACIAR: Australian Centre for International Agricultural Research

5. Cook Islands Plant Disease Survey

Emil Adams

Preliminary findings of a plant disease survey for the Cook Islands, headed by SPC/PPS Virologist Dr. Richard Davies, found no incursions of new plant pathogens of major importance in the region. The survey was carried out in the first of July. Final results are pending information from diagnostic testing of plant samples sent to Australia, New Zealand and France. The principal aim of the survey, according to Dr. Davies, was to assess the general plant disease status of the region and update the list of plant pathogens known to occur in the Cook Islands. Dr. Davies says the last time a general plant disease survey was conducted for Cook Islands was in the 1970s under a UNDP/FAO-SPEC project called "A survey of Agricultural Pests and Diseases in the South Pacific Area". As well as Cook Islands other islands surveyed for plant disease status included Fiji, Kiribati, Niue, Tonga, Tuvalu and Samoa. .

Dr. Davies says the major plant diseases are of particular quarantine concern in the Pacific region because they are found on some islands only. They include taro leaf blight fungus, banana fusarium wilt, papaya ringspot virus and banana bunchy top virus. These are all believed to be absent from the Cook Islands.

According to Dr. Davies the survey team went to as many different areas as possible, examining in detail crop plants of economic importance. Also included were other plants at each survey location. Samples (leaves and other plant parts) were collected from any plants showing possible disease symptoms. Dr. Davies says whilst it is likely that the survey will generate some new plant disease records, it is not expected that any of these will be of quarantine concern to the Cook Islands.

6. Oriental Fruit Fly Expansion in French Polynesia

Ema Tora Vueti

Oriental fruit fly (*Bactrocera dorsalis* (Hendel)) (OFF) was originally detected in French Polynesia on Tahiti and Moorea in July 1996. Efforts to eradicate the species since January 1997, using male annihilation technique (MAT) and very limited protein bait application technique (BAT) have not been successful. Six MAT campaigns in 1997 reduced the OFF population and distribution to a point near eradication, but the programme was interrupted for one year, and resumed on Tahiti and Moorea in early 1999. The latest MAT campaign took place in April 2002. Soon after the OFF discovery, an extensive surveillance network was established throughout French Polynesia, with cue-lure and methyl eugenol traps on 20 islands or atolls, to monitor the spread of OFF and the incursion of other exotic species.

Recently, OFF was confirmed on Huahine (Leeward Group) (May 2002), Raiatea and Tahaa (Leeward Group) (June 2002), and Rimatara (Austral Group) (June 2002). Incursions were detected at a very early stage on Rimatara, Raiatea and Tahaa, and very few flies are trapped in its limited distribution range. On Huahine, on the other hand, OFF probably was established as long as one year earlier and consequently is widespread. In response to its detection, MAT campaigns were initiated and are ongoing on the islands that are affected while BAT has been carried out in some areas. The confirmation on the

occurrence of OFF in Huahine, Raiatea, Tahaa and Rimatara, is a threat to their neighbouring Pacific Island countries and territories. It is imperative that these neighbouring countries strengthen their border control programs involving the movement of yachts.

SPC will issue a formal Pest Alert shortly, and acknowledges the collaboration of the authorities in French Polynesia in the preparation and distribution of this information.

7. Plant Protection Service Staff travel

Emil Adams

Dates	Country	Staff	Purpose
6 August – 12 Sept.	Micronesia and Kiribati	Jacqui Wright	Pest Survey
2 Aug – 6 Sept	French Polynesia	Luc Leblanc	Fruit Fly Work
22 – 25 August	Vanuatu	Mick Lloyd	Follow-up developments on Vanuatu Agricultural Security Project (VASP)

8. SPC Plant Protection Service Events

Emil Adams

Month	Dates	Country	Leader; PPS Contact	Participants	Event
Aug	12-19, 25	Kapingamarangi Marshalls	Dr Jacqui Wright, Konrad Engelberger		Disease survey
	26-29	Fiji	Dr. Richard Davis, Stephen Hazelman and Salend Kumar		Kava Dieback Disease Survey
Sept	9-23	Tonga	Dr Jacqui Wright, Dr.Richard Davis		Tonga Pest Survey

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