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Strategies to improve biosecurity border management

A regional quarantine meeting in Nadi in April discussed improvements in biosecurity at national borders. The workshop was opened by the New Zealand High Commissioner to Fiji, H.E. Mr Michael Green, who commented that some of the problems PICTs face may arise from the way NZ operates its own border management regime. Thus, he said, this meeting was timely to collect information from the Pacific Islands on biosecurity issues at national borders.

SPC Biosecurity Officer Mr Sidney Suma gave background information on the technical services available from SPC in border management and the establishment of the Biosecurity and Trade Facilitation component within the Land Resources Division to address these issues. Mr Suma also updated delegates on biosecurity activities completed for each island country. Procedures on how to access services from SPC were also discussed.

Much of the workshop was spent discussing biosecurity issues affecting border management. Priority concerns identified for biosecurity border management included aircraft and passenger clearance, processing cargo containers, treatment of exported foodstuffs, and screening of mails. The top 10 challenges will be addressed as regional issues and appropriate organisations will action specific issues in their work programmes.

Delegates also went on organised field trips facilitated by Mr Naca Waqa of SPC Biosecurity and Trade Facilitation. Delegates visited quarantine operations at the Lautoka wharf and Nadi airport, the HTFA quarantine treatment plant in Nadi and an export packhouse.

The workshop was held at the Tanoa International Hotel with funding from NZ Biosecurity.

Research to identify new threat to taro in Samoa

Research to identify the cause of the taro petiole stripe problem on P10 and Cycle 4 taro varieties in Samoa is under way.

SPC plant pathologist Ms Jacqui Wright visited Samoa in early April to assist final-year USP School of Agriculture student Ms Merriam Seth with her investigation.

Taro affected by the problem can be identified by a linear discolouration of the epidermis and cells of the vascular system just under the epidermis of the petiole. The striping symptom also continues up to the vascular tissue of the leaf. As it progresses, the petiole becomes wrinkled and yellows, and the leaf often drops off the petiole. After this occurs, the petiole becomes water-soaked and rots.

It is hoped the research study will identify the causal organism, as last year's investigations were largely unsuccessful due to the high levels of contamination in the cultures sent to CABI.

As part of her research, Merriam has been collecting P10 taro varieties in a number of locations to determine the incidence of the disease throughout Samoa.

Merriam has also incubated surface-sterilised diseased petioles of P10 taro. It is hoped the suspected fungal pathogen will sporulate in the moist chambers. She also intends on isolating the suspected fungal pathogen.

The research has been undertaken under the supervision of Dr Adama Ebenebe of USP School of Agriculture.

SPC represented at IPP meeting

Ms Makelesi Kora-Gonelevu, LRD Information Assistant, participated in the International Phytosanitary Portal (IPP) Support Group meeting held in FAO Headquarters, Rome, 16-18 March.

The meeting reviewed progress on recommendations made at the last IPP Support Group meeting and previous IPP workshops and provided feedback on the IPP system and suggested improvements.

The IPP Support Group was formed in 2003 to assist with the development of the International Phytosanitary Portal (IPP). The IPP was developed by the International Plant Protection Convention (IPPC) Secretariat, as an Internet-based information system designed to hold phytosanitary information published in accordance with the Convention, and decisions of the Interim Commission on Phytosanitary Measures.

The primary objective of the IPP is to provide contracting parties (governments) with a single, freely accessible portal to meet their obligations to publish official phytosanitary information.

Phytosanitary issues specific to the Pacific will be discussed at the IPP Pacific workshop planned for 23-27 May in Suva, Fiji. LRD Biosecurity and Trade Facilitation are assisting with workshop preparations.

Pacific Islands PLD

Papua New Guinea became the first PICT country to road-test the Pacific Islands Pest List Database (PIPLD), which has been under development in the past year. LRD Information Team travelled to PNG in April and carried out capacity training for PLD users. The PIPLD, which will go on-line end of May, allows users to access pest occurrence records from any Pacific Island. A mapping facility will show the regional and in-country distributions of specific pests and diseases. PNG users found the system quite easy to navigate. It should be noted that write-access to country records will be restricted to only country administrators and the LRD Information Team.

Enhancements to PLD Version 2.2

- Users can select a specific period to view the “Detailed and Summary Reports” e.g. days over a number of years. Previously, users were restricted to just monthly and annually in the same year.
- All data entry forms are “read-only” and require a password to edit information on the pages. Previous versions allowed users to accidentally write-over important data.

Trial taro farm established at Tetere Prison Farm, Solomon Islands

The Tetere Prison Farm, Solomon Islands, is the site for further research trials on dalo (taro) beetle management as part of LRD Taro Beetle Management (TBM) Project.

SPC entomologist Mr Sada Nand Lal and taro beetle technician Mr Fereti Atu visited Solomon

Islands in early April to establish a second round of trials to identify control methods for taro beetle.

A total of 2600 taro suckers were transported to the Tetera Prison Farm and planted on five experimental blocks. The remaining plants were planted nearby to replace any dead plants. Six different treatments will be applied in the research trial.

Sada and Fereti finalised the management of the research trial with local counterparts Mr MacLean Vagalo (Entomologist) and Mr Robert Kaua (OIC, Tetera Prison Farm).

Farmer extension training on kava dieback disease management

Kava dieback disease is characterised by a rapidly spreading black soft rot of stem tissue and is caused by cucumber mosaic virus (CMV), probably in combination with other factors. Recent research work using tools of molecular biology at USP Suva showed that CMV is not fully systemic in kava plants. Naturally infected plants have an erratic and uneven virus distribution, and most regrowth is virus-free.

Measures to reduce CMV spread through kava plantings is the main focus of a proposed sustainable cultural control package. Laboratory and field work in a collaborative effort between SPC and Fiji MASLR research team found the removal of diseased stems reduced spread of CMV through kava plantings. This cultural practice is now being tested in a formal field trial on Viti Levu, with farmer participatory trials to follow to look at effectiveness of the practice.

The combined SPC-Fiji MASLR research team recently completed a technology transfer extension training on Taveuni, where they presented research findings and recommended new control measures.

The new findings take advantage of kava's ability to combat infection and also of the non-persistent nature of the virus, combining these with natural benefits of traditional Pacific Island farming systems.

Recommendations provided to farmers:

- Infected stems should be broken off (not cut with a knife, as CMV is sap transmissible) and placed in an insect-proof bag for removal and destruction (to also eliminate viruliferous aphids if present).
- Growers should follow traditional kava cultivation techniques, in which the crop is grown on carefully chosen (well drained and fertile) soils in small isolated plantings, with several different intercrops and below a tree canopy.
- Growers should use only disease-free planting material.

The research team have begun assessments of disease incidence and severity to measure impact from the new control measures.

Staff Travel

Dates	Place of travel	Staff	Activity
19 Apr – 10 May	Solomon Is	Warea Orapa	Weed surveys
8 – 22 May	Palau Guam	Sada N Lal	Biocontrol programme
4-19 May	Vanuatu	Salend Kumar	Cabbage pest and disease management
17-21 May	Sydney	Stephen Hazelman	Fostering sustainable behaviour workshop
23-26 May	Perth		Leadership in extension workshop
20-27 May	Rotuma	Takaniko Ruabete Richard Davis Jacqui Wright	Disease surveys
23-27 May	Vanuatu	Fereti Atumuaria	TBM trials
21 May – 16 June	PNG	Warea Orapa	Weed surveys

Events Calendar

Dates	Place	Event
23-27 May	Suva	IPPC/IPP sub-regional workshop
24 May	Holiday Inn, Suva	Launch of Pacific Islands on-line Pest List Database

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