

# INTERNATIONAL NEWSLETTER ON PLANT PATHOLOGY

ISPP Newsletter 44 (4) April 2014

News and announcements from all on any aspect of Plant Pathology are invited for the Newsletter. Contributions from the ISPP Executive, Council and Subject Matter Committees, Associated Societies and Supporting Organisations are requested.

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## **New Centre of Excellence for Food Security**

Professor Lise Korsten of the University of Pretoria, Chair of ISPP's Task Force on Global Food Security, reports the approval by the Minister for Science and Technology of the Republic of South Africa, of a new Centre of Excellence for Food Security. Co-hosted by the Universities of the Western Cape and of Pretoria, the new Centre for Food Security was established in the context of a changing food system facing ecological, social, economic and physical challenges. Experts will pool their knowledge to help improve access to sustainable and sufficient amounts of nutritious food for poor, vulnerable and marginalised populations. The Centre's research will inform and identify science-based programme interventions and policy mechanisms to overcome food insecurity and ensure sound nutrition for all South Africans. Professor Korsten anticipates opportunities for linkage with the new programme of ISPP's Task Force. This information first came to the ISPP Newsletter from Peter Scott.

## **Kiwifruit bacteriosis expected to spread worldwide**

Many studies and research projects are currently underway both at a domestic and international level concerning *Pseudomonas syringae* pv. *actinidiae*. A phytobacteriology group has been collaborating with a number of international research groups (Bio-Protection Research Centre, Faculty of Agriculture and Life Sciences, Lincoln University, and the New Zealand Institute for Plant & Food Research of Christchurch, NZ) to study the epidemiology of such a feared bacteria. In particular, they are working on establishing the areas where the PSA might spread or cause further damage.

After some results were presented during last year's first international *Pseudomonas syringae* pv. *actinidiae* (PSA) convention in New Zealand, further results were presented in the latest issue of the Rivista di Frutticoltura in the Actinidia dossier (Frutticoltura 1/2 2014, pp. 22-29; *Pseudomonas syringae* pv. *actinidiae* (PSA): a forecast on possible spreading, H A Narouei Khandan, S P Worner, E E Jones, S L H Villjanen-Rollinson, L Gallipoli, A Mazzaglia, G M Balestra).

The quick diffusion of the bacteriosis meant that a huge effort was made to develop models that could predict risk levels. The potential spreading of the PSA was calculated with two well-known models (CLIMEX and MaxEnt) on the basis of available disease and environmental data. The forecast could provide sufficient information for technicians to take adequate precautions in order to prevent the disease and defend crops. This is particularly useful for those countries where the disease still has not fully developed or which are still unaffected. Both models established that the Western parts of Turkey, the south-west of Greece and Northern and Central Portugal are at risk. In Asia, a small area in Northern Iran was identified as extremely at risk and in China both models identified the Yunnan and Guangxi regions as also at risk, together with Southern Laos and Vietnam.

If we consider how the disease is progressively spreading, we can see how such studies are extremely helpful.

The results are particularly important for the US, Iran, Greece, Belgium, Denmark and South Africa. Research is also useful to identify the different factors that contribute to the spreading of the disease and therefore to come up with a strategy to address and contain the problem.

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## **2nd Annual Africa Food Security Conference & Agricultural - Exhibition**

Ensuring Sustainable Food Security in Africa      Old Challenges - New Solutions

Government ministries, top level officials and international industry leaders will come together in Nairobi Kenya on the 12-13 August 2014 for this conference and exhibition. The conference's timely theme provides an opportunity for policy makers and other players in the industry to explore timely topics and solutions as a kick start towards finding lasting and sustainable solutions to the perennial challenges on food security in Africa. Building on the success of the inaugural AFSC 2013, AFSC 2014 will address providing a sustainable the topical issues of food availability, accessibility, stability and utilization. Africa is entering an unprecedented period of economic growth underpinned by a burgeoning population development and execution of a core food security strategy essential as a strategy growth platform.

### **Sub Themes at AFSC 2014**

Ensuring Sustainable Food Security in Africa through Trade Policies and Regulation  
Intra regional Trade As A Solution To Food Security  
Growth areas in Agriculture - A Look at Farm Fishing; Aquaculture  
Looking At Agriculture Investment Opportunities

Contact [hellen@aidembs.com](mailto:hellen@aidembs.com) for more details.

## **First report of moko disease of banana in Malaysia.**

During March 2011 to June 2012, a total of 50 banana plants of cultivar *Musa x paradisiaca* 'Horn' with Moko disease symptoms were randomly sampled in 12 different locations of 5 outbreak states in Peninsular Malaysia comprising Kedah, Selangor, Pahang, Negeri Sembilan, and Johor, with disease incidence exceeding 90% in some severely affected plantations. The disease symptoms observed in the infected plants included yellowing and wilting of the oldest leaves, which became necrotic, and eventually led to their dieback or collapse. The pulp of banana fruits also became discolored and exuded bacterial ooze. Vascular tissues in pseudostems were discolored. Based on the disease symptoms, morphological, biochemical and molecular (PCR assays) investigations, as well as pathogenicity test, the causal agent was identified as *R. solanacearum* race 2 biovar 1. Although there were previously extensive studies on *R. solanacearum* associated with bacterial wilt disease of banana crops in Malaysia, none related to Moko disease has been reported.

See: Zulperi, D.; Sijam, K. (2014) [Plant Disease](#) 98 ( 2) 275. Also see: [10.1094/PDIS-03-13-0321-PDN](https://doi.org/10.1094/PDIS-03-13-0321-PDN).

## **Review of apple scab-resistant varieties for commercial growers**

Apple varieties are available with decent to excellent resistance to apple scab, the most important fungal disease in rainy climates. Fruit quality of many of these scab-resistant varieties is quite good. Some of these scab-resistant varieties resemble more traditional varieties to some extent.

It is generally recommended by [Michigan State University Extension](#) that at least a limited fungicide program for apple scab be used on scab-resistant varieties in order to help lessen the potential for the scab pathogen to overcome the plant genes that give resistance. Fungicides may also be needed to provide protection against various other diseases such as cedar apple rust or powdery mildew, depending on the variety. These are noted in the following tables. All apple varieties are susceptible to sooty blotch and fly speck disease. It is usually more efficient to plant scab-resistant varieties separate from non-resistant varieties in order to manage fungicide programs for both apple types appropriately.

Most apple varieties use the same Vf gene for resistance, and scab strains resistant to this gene have been found in Europe, New Zealand, Indiana, Illinois and Ohio. Other sources of scab resistance such as Vr, VM and VA are present in some varieties such as Liberty and provide additional resistance. Some apple varieties such as Honeycrisp and Akane have decent resistance to apple scab, but are not immune. Suncrisp has some resistance to scab, but is significantly susceptible to fire blight.

Click [here](#) to see the full report including tables with variety information.

## **Fungi do not only attack plants**

The Western Australian Department of Health has confirmed the largest outbreak of a hay-borne fungal disease in the state's history. There have been 25 cases of the chronic fungal infection, Sporotrichosis, reported in the past year. Of those, 20 have been recorded in the state's south-west, mainly around the Margaret River Region. South West Population Unit senior public health nurse Amanda Whittle says there is no clear indication of how the fungus arises, but it is found in hay and organic matter. She says people need to realise the disease is not going to disappear. "It does appear to have become endemic in the south-west region." Gardeners, farmers and labourers often contract the disease when working with hay and mulch. Fungal spores usually enter the site through a cut or abrasion and the infection then enters the lymphatic system. Nodules can appear along the infected limb and lymph nodes can also become infected.

Margaret River resident Liz Crowder contracted the disease after she was pricked by a cactus in her garden. The 53-year-old says she was initially diagnosed with a staph infection. "Initially it just made the skin quite red and then it started a nice little line up my finger and gradually to the top of my hand. "Then I knew I had a problem because it was starting to track up my arm."

Dr Clay Golledge, a senior clinical microbiology and infectious diseases consultant at Path West Laboratory Medicine in WA, has treated more than 100 Sporotrichosis cases. He has seen only one fatal case when the infection spread through the entire body, but it is usually contained to one limb. He says the best way to respond to this disease is to improve diagnosis and educate doctors on identifying the disease.

See: <http://www.abc.net.au/news/2014-03-20/hay-fungus-oubreak/5334208>

### **The 20th Annual Conference of the Plant Protection society of Ethiopia is Scheduled for 25 and 26 December, 2013**

At the Ethiopian Institute of Agricultural Research (EIAR), Hiruy Hall, Addis Ababba

Theme: Plant quarantine: the state of affairs in Ethiopia

[Download the Program and Abstracts of the Conference](#)

Tomato is the most important horticultural crop in the world. So ever since the presence of the invasive tomato leaf miner *Tuta absoluta* (Lepidoptera: Africa, Gelechiidae) was confirmed in Ethiopia and Sudan, experts have been bracing for substantial crop losses. Now that the leafminer has reached the sub-Sahara there are no natural barriers to its spread across the continent. Because tomatoes play a key role in diversifying the economic and agricultural sectors of many developing countries, this threat to their production cannot be ignored.

The purpose of this 3-day workshop is to review current knowledge about *Tuta absoluta* and its spread, as well as methods to control the pest. A visit to a lab and a tomato-growing region in Melkassa will provide a valuable learning experience.

### **The View of the FAO on the involvement of African Youth**

The Food and Agriculture Organisation (FAO) of the United Nations has done an account of the involvement of African Youth in the development of Africa with respect to its agriculture and horticulture.

See: <http://www.fao.org/docrep/019/as290e/as290e.pdf>

### **A New Virus on Coffee**

A ProMED-mail post at <http://www.promedmail.org> reported a new ermaravirus on coffee in Hawaii, USA. (type species \_European mountain ash ringspot-associated virus) was accepted as a new genus in 2009. It is not yet assigned to a family or order. Emaraviruses are transmitted by eriophyid mites, which can disperse on wind currents. If this virus is the causal agent, it has the potential to move through a field rather quickly. The disease [may not] kill any coffee trees, but it makes the berries unmarketable.

### **Acknowledgements**

I thank Greg Johnson and Peter Williamson for their input to this issue.