

The International Society for Plant Pathology promotes the world-wide development of plant pathology and the dissemination of knowledge about plant diseases and plant health management





PROMOTING WORLD-WIDE PLANT HEALTH AND FOOD SECURITY

**INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY** 

# **ISPP NEWSLETTER**

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Editor: Daniel Hüberli (email) Join the ISPP mail list

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INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY (ISPP) www.isppweb.org

# CHANGE OF EDITOR-IN-CHIEF FOR FOOD SECURITY

### SERGE SAVARY & RICHARD STRANGE, EDITOR-IN-CHIEF FOR FOOD SECURITY



### **RICHARD** STRANGE

has been leading the ISPP journal, Food Security, for ten years. With his leadership, the journal has successfully reached а wide multidisciplinary audience. comprising not only plant scientists (including plant also pathologists), but economists, nutritionists, geographers, policy experts, climatologists, medical doctors,

and many others. This is because it has successfully met the challenge of addressing much more than the critical aspects of food provisioning; food access, food safety, food quality, and food stability. The publisher, Springer,

originally mooted that the journal would consist of four issues per annum of about 80 pages each. It was never that small but has now grown to six issues per annum and last year (2018) consisted of over 1600 pages – five times the original estimate - and achieved an impact factor of 2.970.

The existence of *Food Security* derives from the initiative of an international group of scientists, sociologists and economists who hold a deep concern for the challenge of global food security, together with a vision of the power of shared knowledge as a means of meeting that challenge.

But the success of *Food Security* results from the day-to-day efforts of Richard Strange: mobilising authors who do not know the journal and have little idea of its scope, drawing interest and support from editors in disciplinary areas very far away from plant pathology, and, as a result, reviewing and editing several hundred pages a month.

On 1 January 2019, Richard Strange will be replaced by Serge Savary as Editor-in-Chief of *Food Security*.

SERGE SAVARY is a plant pathologist with INRA,

France. His current research looks at plant health in France, in Europe, and in the world, using especially wheat, the most cultivated plant in the biosphere area-wise, as a guide. His research has addressed different areas of plant pathology, including taxonomy, diagnostic, disease risk disease management, and assessment, research prioritization. He spent a large fraction of his professional career in the tropical world, in West Africa, Central America, France, South-East and South Asia, with ORSTOM (IRD), and with the International Rice Research Institute. His research has been based on field work - in vegetable gardens and open fields of groundnut, cassava, and maize of West Africa, in rice fields of South-East and South Asia, and in perennial systems, such as grapevine in France and coffee in Central America.

> Lots of field work has generated lots of questions on the functioning of agrosystems, and some ideas. The latter have led to modelling work to better understand the present, and analyse possible futures. Field work in farmers' fields, and modelling alike, are meeting points for different disciplines. He has worked with economists and crop physiologists when looking at crop losses, with geneticists and breeders when looking at host plant resistance,

with climate scientists and geographers when looking at climate change effects on diseases, and also with water scientists and irrigation engineers when working on model parameterisation and optimisation, or with anthropologists looking at IPM.

The ISPP journal, *Food Security*, is another disciplinary crossroad, which concerns one of the most pressing questions of our times.

# RESULTS OF THE ISPP LOGO SURVEY LAUNCHED IN OCTOBER 2018

### ANDREA MASINO, ISPP BUSINESS MANAGER

Thanks to everyone for contributing to the ISPP logo survey. A total of 147 responses were recieved and the results are summarised below.



Figure 1: Number of survey's views and responses during the covered period (October 5th 2018 – January 15th 2019).







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IS THE CURRENT LOGO A GOOD REPRESENTATION OF THE **ISPP** (ITS DIVERSITY, ITS ROLE, ...)?



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# IN YOUR OPINION, WHAT ARE THE IMPORTANT ELEMENTS OF THE CURRENT LOGO?

■Yes ■No

#### WHAT WOULD BE, IN YOUR OPINION, IMPORTANT ELEMENTS TO SEE IN A NEW LOGO OF THE ISPP?



Figure 3: The tag cloud is the graphic representation of the most used words in the last question of the survey. Tags have different sizes based on their frequency.

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# BEST OF 2018 - PLANT SCIENCES, AGRICULTURE & FOOD SECURITY

Springer takes a look back and reflects on some of the most popular research from 2018, from their book and journal portfolios to inspire you for the new year. All non-open access articles are free-to-access until 28 February 2019.

The top ten journal papers includes these four papers:

- <u>"The environmental sustainability of insects as food and feed. A</u> <u>review"</u> (Open Access) Arnold van Huis, Dennis G. A. B. Oonincx in *Agronomy for Sustainable Development*
- <u>"We need radical change in how we produce and consume food"</u> (Open Access) Peter Horton in *Food Security*
- <u>"Analysis of soil microbial communities based on amplicon</u> sequencing of marker genes" Anne Schöler, Samuel Jacquiod, Gisle Vestergaard, Stefanie Schulz, Michael Schloter in *Biology and Fertility of Soils*
- <u>"Wheat blast disease: danger on the move"</u> (Open Access) Christian
   D. Cruz, Barbara Valent in *Tropical Plant Pathology*

Congratulations to Richard Strange with one paper from Food Security amongst top downloads in 2018!

Among the top ten are these plant pathology related books:

- <u>Handbook of Florists' Crops Diseases</u>. McGovern, R.J. (et al.) (Eds.)
- <u>Molecular Aspects of Plant-Pathogen Interaction.</u> Singh, A. (et al.) (Eds.)
- <u>Plant Microbiome: Stress Response.</u> Egamberdieva, D. (et al.) (Eds.)

Congratulations to Zuzana and Mariska!

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Visit Springer to read the most downloaded publications of 2018.

Happy reading!





# THE WORLD'S TEN MOST FEARED FUNGI

A review by Kevin D. Hyde et al. titled "The world's ten most feared fungi" was published in 2018 by Fugnal Diversity (vol. 93, pp. 161-194). The abstract is as follows:-

An account is provided of the world's ten most feared fungi. Within areas of interest, we have organized the entries in the order of concern. We put four human pathogens first as this is of concern to most people. This is followed by fungi producing mycotoxins that are highly harmful for humans; Aspergillus flavus, the main producer of aflatoxins, was used as an example. Problems due to indoor air fungi may also directly affect our health and we use Stachybotrys chartarum as an example. Not everyone collects and eats edible mushrooms. However, fatalities caused by mushroom intoxications often make news headlines and therefore we include one of the most poisonous of all mushrooms, Amanita phalloides, as an example. We then move on to the fungi that damage our dwellings causing serious anxiety by rotting our timber structures and flooring. Serpula lacrymans, which causes dry rot is an excellent example. The next example serves to represent all plant and forest pathogens. Here we chose Austropuccinia psidii as it is causing devastating effects in Australia and will probably do likewise in New Zealand. Finally, we chose an important amphibian pathogen which is causing serious declines in the numbers of frogs and other amphibians worldwide. Although we target the top ten most feared fungi, numerous others are causing serious concern to human health, plant production, forestry, other animals and our factories and dwellings. By highlighting ten feared fungi as an example, we aim to promote public awareness of the cost and importance of fungi.

#### Read paper.

FOREST HEALTH AND **BIOTECHNOLOGY:** POSSIBILITIES

AND CONSIDERATIONS

International Society for Plant Pathology

#### The US National Academies of Sciences, Engineering, and Medicine recently held a public release webinar for the new consensus report Forest Health and Biotechnology: Possibilities and Considerations. Watch the webinar recording and download the free PDF report.

Biotechnology has the potential to help mitigate threats to North American forests from insects and pathogens through the introduction of pest-resistant traits to forest trees. However, many gaps in knowledge remain, particularly related to tree genetics, effects on the environment, and the public's understanding of the technology. The report examines the potential of biotechnology to mitigate threats to forest tree health; identifies the ecological, ethical, and social implications of deploying biotechnology in forests, and develops a research agenda to address the knowledge gaps.

The study by the Committee on the Potential for Biotechnology to Address Forest Health was sponsored by the U.S. Department of Agriculture, the U.S. Environmental Protection Agency, and the U.S. Endowment for Forestry and Communities. The National Academies of Sciences, Engineering, and Medicine are private, nonprofit institutions that provide independent, objective analysis and advice to the nation to solve complex problems and inform public policy decisions related to science, technology, and medicine. The National Academies operate

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under an 1863 congressional charter to the National Academy of Sciences, signed by President Lincoln.

# HANDBOOK OF DISEASES OF BANANA, ABACÁ & ENSET - NEW BOOK

Handbook of Diseases of Banana, Abacá and Enset. 2018. David R. Jones (editor). CABI, Greaet Britian. 656 p.

This book provides a comprehensive guide to the large number of diseases, disorders and injuries that can cause severe economic losses to banana, abacá and enset crops, and the fungi, bacteria, phytoplasmas, viruses, nematodes and abiotic factors involved. The monoculture of certain banana cultivars in large plantations make the crop particularly susceptible to catastrophic losses from disease and smallholders can also experience major problems. New approaches to breeding, crop management and handling are being developed to meet challenges posed by emerging threats.

Handbook of Diseases of Banana, Abacá and Enset both describes and illustrates diseases and is printed in full colour throughout, creating a valuable diagnostic tool. It covers:

- The origin and classification of banana, the safe movement of Musa germplasm and banana breeding for disease resistance.
- Recent areas of growing research on the most important diseases of banana, such as black leaf streak, fusarium wilt, xanthomonas bacterial wilt and bunchy top.
- Significant advances relating to pathogens causing less serious and widespread diseases.

Authored by an international team of experts, this is an essential reference for all 'banana doctors' around the world. It serves as a useful field and laboratory guide, as well as a source of information for all those investigating diseases of banana, abacá and enset crops.

Visit <u>CABI</u> to learn more about this book.





## **CALL FOR EMERGENCY ACTION PLAN FOR MYRTLE RUST**

### GRAHAM READFEARN, THE GUARDIAN, 24 JANUARY 2019

Australia must roll out an emergency national response to an invasive plant disease that is rapidly pushing at least four plant species to imminent extinction, experts have warned. A draft emergency action plan for the fungal disease myrtle rust proposes that a rapid collection of seeds and plant material needs to be mobilised before several species disappear altogether.

Botanist Bob Makinson, vice-president of the Australian Network for Plant Conservation, has coordinated the action plan with input from about 90 experts around the country. He says the pathogen could result in at least four species becoming extinct within five years - Lenwebbia sp. 'Blackall Range', Lenwebbia sp. 'Main Range', Rhodamnia rubescens (scrub stringybark, brush turpentine, or brown mallet wood), and Rhodomyrtus psidioides (native guava) - with others to follow.

Myrtle rust, first found at a New South Wales nursery in 2010, attacks trees in the myrtaceae family. In Australia, that includes 2,253 species, including iconic trees such as paperbarks and bottle brush. Many exist only in Australia. About 358 Australian species are already known hosts of myrtle rust, and that number is likely to rise.

Makinson says myrtle rust is now "fully naturalised" from Moruya, 300km south of Sydney, to Cape York, and west to the Great Dividing Range. The disease has also appeared in the north of the Northern Territory and has been found in gardens and nurseries in Victoria and Tasmania.



### Read more.

**EXPERTS SAY SOME MEMBERS OF 'ENORMOUSLY IMPORTANT' MYRTLE FAMILY COULD BE EXTINCT WITHIN FIVE YEARS** 



### IS HABITAT RESTORATION KILLING PLANTS IN CALIFORNIAN FORESTS?

### KARA MANKE, BERKELEY NEWS, 2 JANUARY 2019

In 2014, plant biologists with the California Department of Agriculture reported an alarming discovery: native wildflowers and herbs, grown in nurseries and then planted in ecological restoration sites around California, were infected with Phytophthora tentaculata, a deadly exotic plant pathogen that causes root and stem rot. While ecologists have long been wary of exotic plant pathogens borne on imported ornamental plants, this was the first time in California that these microorganisms had been found in native plants used in restoration efforts. Their presence in restoration sites raised the frightening possibility that ecological restoration, rather than returning disturbed sites to their natural beauty, may actually be introducing deadly plant pathogens, such as those related to Phytophthora ramorum, into the wild.

New work by a University of California (UC) Berkeley team in the College of Natural Resources shows for the first time just how widespread and deadly the threat of pathogens from restoration nurseries may be. The team surveyed five native plant nurseries in Northern California and found that four harbored exotic, or non-native, *Phytophthora* pathogens. Strains of the pathogens from native plant nurseries were shown to be at times more aggressive than strains found in the wild, and some of them are rapidly developing resistance to the fungicides that can be used to control them, the researchers found. In a recent study published in the journal <u>Plant</u> <u>Pathology</u>, UC Berkeley researchers examined 203 individual plants across five restoration nurseries in California and found that 55 of the plants were infected with Phytophthora. "We were able to prove that this is a widespread problem in California," Matteo Garbelotto said, a cooperative extension specialist and adjunct professor of environmental science, policy and management at UC Berkeley. "Most of the stock that they used is infested, and the levels were very high. For some species more than 50% of the plants we tested were infected."

The team then worked with the infected nurseries to implement new best management practices to try to limit the spread of disease without the use of phosphite or of other fungicides. These simple guidelines, which included more careful management of water runoff and soil to reduce cross contamination, reduced the prevalence of disease to nearly zero a year after implementation.

"We were able to prove that after a year of following the guidelines, those facilities were clear of pathogens, and other facilities that did not follow the guidelines still had the pathogens," Garbelotto said. "As a result of these findings, people are now putting a lot of money and effort into making sure that the plants are clean, by following similar guidelines and by making sure that no fungicides are used to avoid the development of resistance."

Read more.



# WANTED: YOUR BEST CASES FOR AN "IPPC TALK"

International Plant Protection Convention (IPPC) Contracting Parties and Regional Plant Protection Organizations (RPPOs) will have the opportunity to present positive solutions to their challenges or to share their success stories during the 14<sup>th</sup> Session of Commission on Phytosanitary Measures (CPM-14) plenary session through an "IPPC talk" under the agenda of "Successes or challenges in implementing the IPPC". Representatives from selected proposals will be given a maximum of 5 minutes to present their issue using a storytelling approach (eg Ted talk).

Please send your proposal to Sarah Brunel (<u>sarah.brunel@fao.org</u>) by 20 February 2019, with a one page summary detailing the following five points:

- 1. The proposed title of your presentation
- 2. What is the challenge or success you are dealing with
- 3. How you dealt successfully with it
- 4. What the effect or anticipated effect of your action
- 5. How your story can inspire or help others

A maximum of five cases will be selected using the following criteria:

- Relation of the case proposed to the CPM and IPPC Secretariat's priority areas of work (e.g. Phytosanitary Capacity Evaluation conducted, activities related to emerging pests or emergencies, e-commerce innovative work);
- Clarity and conciseness of the case;
- Potential interest and usefulness to members of the IPPC community.

More information.

# APPLICATIONS OPEN FOR DEVELOPMENT PROGRAMME FOR EARLY CAREER RESEARCHERS

### RICHARD WYATT, CONNECTED

Applications are open for V4: The CONNECTED Development Programme for Early Career Researchers; a fully-funded 10-day residential course at the University of Bristol, UK (10-21 June 2019). The purpose is to create a cohort of Early Career Researchers (ECRs) with a joint understanding of virology and entomology which enables them to collaborate effectively on the research challenges of plant vector-borne diseases in Africa. Places will be awarded by competitive application, and the aim is to attract both virologists and entomologists. Funding is available to cover travel, accommodation, subsistence and all training costs of successful applicants.

The programme aims to provide attendees:

- new scientific knowledge
- practical and technical experience
- knowledge for cross-disciplinary working
- knowledge and experience of writing collaborative funding applications to tackle important plant VBD problems, and
- a new network of fellow ECRs.

Participants will be able to make use of these new skills in their home place of work, building capacity, for example in managing existing projects, developing new projects and techniques, and applying for research funding.

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Applications are now open to CONNECTED network members, using the <u>application form</u> and close 24 February 2019. Along with Twitter, Instagram and LinkedIn, ISPP now has a home on Facebook since 28 January 2019. Join us by clicking on the Facebook logo here or at the front or end of the Newsletter!



# 14<sup>™</sup> INTERNATIONAL PLANT VIRUS EPIDEMIOLOGY SYMPOSIUM

### PROF. PETER PALUKAITIS, ORGANISER OF IPVE2019

The 14<sup>th</sup> International Plant Virus Epidemiology Symposium (IPVE2019) is being held from 13-17 May 2019 in Seoul, South Korea.

IPVE2019 will bring together research scientists who are at the forefront of Plant Virology and related scientific fields and will provide opportunities for junior scientists and graduate students to present their work and exchange ideas with established senior scientists. The program will include symposia, poster sessions and special discussions on a wide range of themes on plant virus epidemiology and realted science.

This will be an opportunity to exchange information, engage in stimulating discussions and collaborate with fellow members from around the world. More information and important dates are available on the <u>IPVE 2019</u> webpage.

# **ACKNOWLEDGEMENTS**

Thanks to Greg Johnson, Jan Leach, Andrea Masino, Serge Savary, and Richard Strange for contributions.



# **COMING EVENTS**

#### **19th International Reinhardsbrunn Symposium on Modern Fungicides and Antifungal Compounds** 7 April - 11 April, 2019

Friedrichroda, Germany Website: <u>plant-protection.net/de/reinhardsbrunn</u>

#### 1st International Molecular Plant Protection Congress 10 April - 13 April, 2019 Adana, Turkey Website: <u>www.imppc2019.org</u>

### Joint Meeting of the IUFRO working parties

"Shoot, foliage and stem diseases" and "Wilt diseases" (7.02.02 and 7.02.03) 6 May - 10 May, 2019 Figline Valdarno, Florence, Italy Website: www.iufro.org/download/file/29599/2749/florence19-1st-announcement\_doc/

#### 2<sup>nd</sup> International Conference on Holobionts

8 May - 10 May, 2019 Montréal, Québec, Canada Website: <u>www.fourwav.es/view/1040/info/</u>

#### 14<sup>th</sup> International Plant Virus Epidemiology Symposium 13 May - 17 May, 2019

Seoul, South Korea Website: <u>www.ipve2019.com</u>

#### 5<sup>th</sup> International Symposium on Postharvest Pathology: From Consumer to Laboratory -Sustainable Approaches to Managing Postharvest Pathogens 19 May - 24 May, 2019 Liège, Belgium Website: www.postharvest2019.be

# International Symposium on Cereal Leaf Blights 2019

22 May - 24 May, 2019 University College Dublin, Dublin, Ireland Website: <u>www.isclb2019.com</u>

#### **Functional Metagenomics 2019**

16 June - 19 June, 2019 Trondheim, Norway Website: <u>www.sasm.org.za/component/k2/item/219-</u> <u>functional-metagenomics-2019</u>

### Rhizosphere 5

7 July - 11 July, 2019 Saskatoon, Saskatchewan, Canada Website: <u>www.rhizo5.org</u>

#### 11<sup>th</sup> International Workshop on Grapevine Trunk Diseases

7 July - 12 July, 2019 Penticton, British Columbia, Canada Website: <u>iwgtd2019.ca/</u>

#### 4<sup>th</sup> International Symposium on Biological Control of Bacterial Plant Diseases (BIOCONTROL2019)

9 July - 11 July, 2019 Viterbo, Italy Website: <u>www.biocontrol2019.com</u>

### XVIII International Society for Molecular Plant-

Microbe Interactions Congress 14 July - 18 July, 2019 Glasgow, Scotland Website: <u>www.ismpmi.org/Congress/2019</u>

#### 1st International Wheat Congress

21 July - 26 July, 2019 Saskatoon, Saskatchewan, Canada Website: <u>2019iwc.ca</u>



#### American Phytopathological Society Annual Meeting – Plant Health 3 August - 7 August, 2019

Cleveland, Ohio, USA Website: www.apsnet.org/meetings/2019/Pages/default.aspx

# International Workshop on the Fruit Microbiome: A New Frontier

3 September - 6 September, 2019 National Conservation Training Center, Shepherdstown, West Virginia, USA Website: <u>www.bard-isus.com/fruitmicrobiome.html</u>

### Working Party Meeting of IUFRO WP 7.03.10

Methodology of forest insect and disease survey in Central Europe - "Recent Changes in Forest Insects and Pathogens Significance" 16 September - 20 September, 2019 Suceava, Romania Website: www.silvic.usv.ro/iufroromania2019/

# 22<sup>nd</sup> Biennial Conference of the Australasian Plant Pathology Society 25 November - 28 November, 2019 Melbourne, Australia

Website: <u>www.apps2019.org</u>

#### **International Symposium on Microbe-Assisted Crop Production – Opportunities, Challenges and Needs** 2 December - 5 December, 2019

Vienna, Austria Website: <u>http://micrope.org/</u>

#### 16<sup>th</sup> Congress of the Mediterranean Phytopathological Union 23 March - 27 March, 2020 Limassol, Cyprus Website: <u>cyprusconferences.org/mpu2020</u>

### 14<sup>th</sup> International Conference on Plant Pathogenic Bacteria 7 June - 12 June, 2020

Assisi, Italy Website: <u>www.icppb2020.com</u>

#### Asian Conference on Plant Pathology: Importance and Impact of Global Plant Health

15 September - 18 September, 2020 Tsukuba International Congress Center, Ibaraki, Japan Website: www.ppsj.org/pdf/meeting/2020 ACPP.pdf?0913-2

#### IX International Postharvest Symposium 9 November - 13 November, 2020 Rotorua, New Zealand Website: <u>scienceevents.co.nz/postharvest2020</u>

#### 12<sup>th</sup> International Congress of Plant Pathology (ICPP2023)

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20 August - 25 August, 2023 Lyon, France Website: <u>www.icpp2023.org</u>



### INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY (ISPP)



#### WWW.ISPPWEB.ORG

The ISPP List is an e-mail list server which broadcasts messages and announcements to its subscribers. Its goal is to facilitate communication among members of the International Society for Plant Pathology and its Associated Societies. Advertised vacancies in plant pathology and ISPP Newsletter alerts are also sent to members of the ISPP List.

In accordance with the guidelines and recommendations established by the new EU General Data Protection Regulation 679/2016 (GDPR), the International Society for Plant Pathology has created a Privacy Information Notice containing all the information you need to know about how we collect, use and protect your personal data. This policy explains when and why we collect personal information about our users, how we use it, the conditions under which we may disclose it to third parties, how we keep it safe and secure and your rights and choices in relation to your personal information.

Should you need further information please contact <u>business.manager@issppweb.org</u>

