

PROMOTING WORLD-WIDE PLANT HEALTH AND FOOD SECURITY

INTERNATIONAL SOCIETY FOR PLANT PATHOLOGY

#### ISPP NEWSLETTER

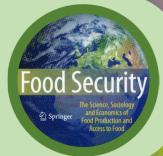
**ISSUE 55 (12) DECEMBER 2025** 

Editor: Daniel Hüberli (email)

Join the ISPP mail list







#### IN THIS ISSUE:

New ISPP Subject Matter Committee on Fruit, Nut and Forest Crop Canker Diseases

International Year of the Woman Farmer 2026

Plant 'first responder' cells warn neighbors about bacterial pathogens

Expansion of the plant-parasitic nematode RNA viruses

Salicylic acid at the crossroads of plant immunity and temperature resilience

Ancient plant protein offers new path for broad-spectrum pathogen resistance in crops

Estimating the climate change-driven global distribution of Fusarium proliferatum and mycotoxin risk assessment under future warming scenarios

Biofilm takes flight as Saharan bacteria shield themselves to survive dust storm journeys

Wild grass offers new genetic clues to combat deadliest pathogen of wheat

**Current Vacancies** 

Acknowledgements

**Coming Events** 









# New ISPP Subject Matter Committee on Fruit, Nut and Forest Crop Canker Diseases

## THEMIS MICHAILIDES, GIORGIO GUSELLA AND CARLOS AGUSTÍ-BRISACH, 6 NOVEMBER 2025

Canker diseases are an increasingly complex and globally significant problem in fruit, nut, and forest crops. To support stronger international collaboration and accelerate practical solutions, the International Society for Plant Pathology (ISPP) has established a new Subject Matter Committee: Fruit, Nut, and Forest Crops Canker Diseases (FNF-CD), chaired by Dr Themis J. Michailides with Dr Giorgio Gusella (Vice-Chair) and Dr Carlos Agustí-Brisach (Secretary).

Advances in fungal taxonomy and molecular diagnostics have revealed that many canker problems are multipathogen disease complexes strongly influenced by abiotic stress, prompting the need for clearer terminology, improved understanding of causal agents, and more integrated research approaches. The committee will help coordinate global efforts, encourage isolate and data sharing, and promote research that identifies true primary pathogens and delivers robust, grower-ready management strategies.

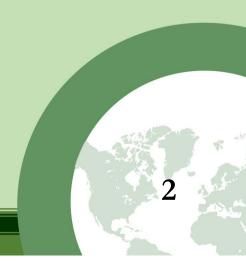
Planned activities include building an international expert network, hosting sessions at ISPP Congresses, organising a major meeting every 3–4 years, and maintaining an online hub for announcements, resources, and collaborative projects. The first FNF-CD gathering took place during the 17<sup>th</sup> Congress of the Mediterranean Phytopathological Union, 6–10 July 2025 in Bari, Italy.

The committee welcomes researchers worldwide working on any aspect of canker diseases and invites them to join this new global network.

For more information or to join the network, visit: <a href="https://www.isppweb.org/smc">https://www.isppweb.org/smc</a> 22.asp

A letter to the editor introducing the new ISPP Committee was published in *Plant Disease* (Vol. 109, No. 11, Pages 2255-2256) on 6 November 2025. <u>Read article</u>.

**Acknowledgment:** The committee thanks Dr Laura Mugnai (University of Florence) for initiating this important effort.



#### INTERNATIONAL YEAR OF THE WOMAN FARMER 2026

## FOOD AND AGRICULTURE ORGANIZATION (FAO) OF THE UNITED NATIONS, 4 DECEMBER 2025

The United Nations declared 2026 the International Year of the Woman Farmer (IYWF 2026). The Year will spotlight the essential roles women play across agrifood systems, from production to trade, while often going unrecognized. Women farmers are central to food security, nutrition and economic resilience. IYWF 2026 will raise awareness and promote actions to close the gender gaps and improve women's livelihoods worldwide.

On 4 December 2025 from 12:30 to 14:00 the Opening Ceremony of the International Year of the Woman Farmer (IYWF) 2026, was broadcast <u>live from FAO Headquarters in Rome and online</u>. Held during the 179th Session of the FAO Council, the event officially launched the Year and set the stage for coordinated global action.

#### WOMEN FARMERS: WHO THEY ARE AND WHAT THEY DO

Women farmers are all women working in agrifood systems in different capacities across all segments of value chains. This includes farmers, producers, peasants, family and smallholder farmers, seasonal laborers, fishers, fish workers, beekeepers, pastoralists, foresters, processors, traders, traditional knowledge holders, women in agricultural sciences, formal and informal workers, and rural entrepreneurs. They encompass women in all their diversity, including young and older women, Indigenous women and women in local communities, women with disabilities, refugee and displaced women, and others.

The definition is inclusive of women in both formal and informal work, recognizing their contributions regardless of land ownership or employment status. It reflects the diverse and essential roles all women play in sustaining agrifood systems including through leadership, care and domestic work, while supporting food security, contributing to economic prosperity, and improving nutrition and livelihoods for their families and communities.

More information: <a href="https://www.fao.org/woman-farmer-2026/en/">https://www.fao.org/woman-farmer-2026/en/</a>

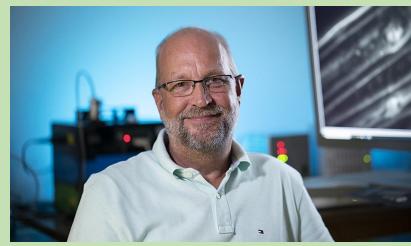


# PLANT 'FIRST RESPONDER' CELLS WARN NEIGHBORS ABOUT BACTERIAL PATHOGENS

#### STEVE KOPPES, PURDUE UNIVERSTIY NEWS, 2 DECEMBER 2025

Purdue University researchers found that a subset of epidermal cells in plant leaves serves as early responders to chemical cues from bacterial pathogens and communicate this information to neighbors through a local traveling wave of calcium ions. The properties of this local wave differ from those generated when epidermal cells are wounded, suggesting that distinct mechanisms are used by plants to communicate specific types of pathogen attack, the team reported in <u>Science Signaling</u>.

The new work from Purdue's Emergent Mechanisms in Biology of Robustness Integration and Organisation (EMBRIO) Institute highlights the importance of calcium ion signatures or patterns in the cytoplasm of cells. Plants and animals use calcium ions to transmit biologically critical sensory information within single cells, across tissues and even between organs.



Christopher Staiger, a Distinguished Professor in the Departments of Botany and Plant Pathology and Biological Sciences at Purdue University. Staiger and his colleagues in the Emergent Mechanisms in Biology of Robustness Integration and Organisation (EMBRIO) Institute have published a new study on plant defense mechanisms in Science Signaling (Photo credit: Purdue Weldon School of Biomedical Engineering/Emily Blue).

"When a bacterium infects plant material, or when a fungus tries to invade plant tissue, cells and tissues recognise the presence of an attacker," said Christopher Staiger, a professor in the Department of Botany and Plant Pathology and Distinguished Professor of Biological Sciences. "They recognise both chemical and mechanical cues. This study is largely about how the chemical cues are sensed."

In addition to Staiger, who led the study, the co-authors include EMBRIO Institute members in the Weldon School of Biomedical Engineering, including associate professor Elsje Pienaar and David Umulis, who is co-director of the EMBRIO Institute. Funded through the National Science Foundation-Biology Integration Institutes program, EMBRIO brings together biologists and experimentalists with mathematical and computational modelers to describe how different organisms sense and respond to chemical, mechanical and electrical cues. The research is motivated mainly by its long-term practical implications.

"We want to understand how plant defense works, to find the key signaling processes or signaling pathways that could help us develop novel strategies to control plant disease," said study co-author Weiwei Zhang.

In plants and other organisms, growing evidence suggests that calcium ion fluxes in the cytoplasm generate a unique "signature" with features that depend on the specific stimulus. Calcium levels might spike, plunge, then spike again. The signature is defined by the number, amplitude and frequency of the peaks. Downstream molecules decode these signatures, triggering an appropriate cellular response, Staiger explained.

Scientists already knew that when a leaf senses a bacterial infection, it generates a fast-moving traveling calcium wave that is transmitted to other leaves on the plant, inducing a systemic defense response. By focusing more locally on tissues and cells, the Purdue researchers found that not all cells respond at the same time, nor in the same fashion. Instead, a subset of cells generates a local traveling wave of cytosolic calcium ions to alert a small group of neighbors of the danger.

#### International Society for Plant Pathology



Purdue University's Weiwei Zhang, senior research scientist in botany and plant pathology. Zhang, a member of the Emergent Mechanisms in Biology of Robustness Integration and Organization (EMBRIO) Institute, prepares a sample for imaging at a confocal microscope (Photo credit: Purdue Agricultural Communications/Joshua Clark).

"Our study indicates there might be a subset of cells, and they are the first responders that initiate those local waves. We quantitatively characterised the features of chemically induced waves versus mechanically induced waves. They travel differently with different molecular mechanisms," Staiger said.

The interdisciplinary EMBRIO team included senior research scientists Zhang and Nilay Kumar. Zhang provided the experimental data, which Kumar translated into a simple mathematical model.

"This work sits at the intersection of mathematics, computation and cell signaling, and it allows us to ask questions that neither experiments nor simulations could answer alone," Kumar said. The researchers formally tested whether calcium-induced calcium release (CICR) could explain calcium waves that traveled at a

constant, slow speed in response to pathogen-associated molecular patterns.

"Experimentally, the waves appeared highly coordinated, but there was still uncertainty about whether such behavior required an active propagation mechanism," Kumar said. "The CICR-based model successfully reproduced the constant-speed wave propagation seen experimentally, demonstrating that an active process is sufficient to account for this behavior."

On the experimental side, Zhang and her colleagues developed an imaging and quantitative analysis system, especially for calcium, from scratch. Their task was to measure its rapid and short-lived dynamics in living cells with high precision to better understand its importance in plant defense. Although some labs already can do this, she noted, the capability is not yet widely available.

The system required a special microscopy imaging chamber because calcium imaging differs from their more routine imaging, which involves image collection only once or for short time periods. "For calcium, we needed to be able to add treatments in the middle of imaging and to record the calcium signals reliably in real time before and after treatment," Zhang said.

Other researchers had already shown that wound-induced cellular damage generates a calcium wave. Zhang generated such calcium waves in the laboratory by using a strong, focused laser to injure a single cell on the leaf epidermis. In that way, she experimentally mimicked the traveling calcium wave, which spread locally to only a few cells.

When Zhang quantified the wave front's properties, she found clear differences between wound-induced and chemically induced waves. The wound-generated waves started fast at high amplitude, then their speed and amplitude faded over time and distance. "Like dropping a pebble in a pond, the wave is big at first and as it progresses, it diminishes," Staiger said.

The chemically induced waves behaved quite differently. "Weiwei noticed it isn't perfectly radial," Staiger said. Instead of spreading evenly with a high initial speed, the chemically triggered wave moves slowly and often asymmetrically, maintaining a nearly constant speed as it advances from its point of origin. "Weiwei's great work of quantifying and carefully analysing both the subcellular signature of initiator cells and, more importantly, the traveling wave, is an important advance for the field," Staiger said.

The modeling insights, meanwhile, clarified the difference between a calcium flood and a calcium wave front. The latter has a trailing edge that drops in volume or amplitude. The mathematical modelers on the team showed the likely existence of a sink that removes calcium ions from the cytosol, limiting the distance traveled. That's just one of the new testable hypotheses the predictive modeling effort generated, which also helps explain the data.

"For example, the work suggests that intracellular calcium pools may contribute to wave attenuation, which is something we can experimentally probe in future studies," Kumar said.

Read paper.

# EXPANSION OF THE PLANTPARASITIC NEMATODE RNA VIRUSES

A paper by Huang Huang *et al.* titled "Expansion of the plant-parasitic nematode RNA viruses: Unprecedented diversity, intron-bearing viruses, and cross-kingdom evolutionary links" was published on 1 December 2025 by *NPJ Biofilms Microbiomes* (2025). The abstract is as follows:-

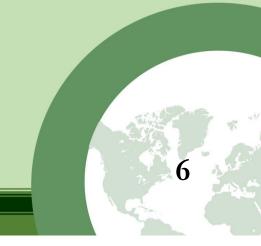
Plant-parasitic nematodes (PPNs) pose a significant threat to global crop production, yet their associated viral diversity remains poorly characterized, limiting potential virus-mediated biocontrol strategies. In this study, we investigated PPN-associated viruses using both virome data obtained from ten field populations of potato rot nematode (Ditylenchus destructor) collected in Lulong County (Qinhuangdao city, China), a major sweet potatoproducing region, along with 536 publicly available transcriptome datasets from the Sequence Read Archive (SRA) database, collectively encompassing twenty-five PPN species. We identified 94 PPN-associated viruses, representing a 7.9-fold increase over prior records. These viruses span eighteen established families and six unclassified viral groups, including the first discovery of viruses, Jingmen orthomyxo-like viruses, ormycoviruses in PPNs or nematodes, expanding the possible host ranges of these viral groups. Notably, a clade of yue-like viruses harbored up to 10 introns, surpassing 2–3 introns that were only observed in orthomyxoviruses and certain members of the Mononegavirales. Furthermore, identified two larger nematode-associated bunyaviruses with the L segments exceeding 12,000 bp, which appear to have acquired a putative cysteine proteinase gene potentially originating from their nematode hosts (possibly Pristionchus spp.). Our findings reveal that natural PPN populations could host an unexpectedly high diversity of RNA viruses, higher than previously recognized. Exploring these viruses provides novel insights into viral evolution and establishes a foundation for utilizing viruses as a potential method for controlling PPN diseases.

# SALICYLIC ACID AT THE CROSSROADS OF PLANT IMMUNITY AND TEMPERATURE RESILIENCE

A review by Wei Li et al. titled "Living with temperature changes: Salicylic acid at the crossroads of plant immunity and temperature resilience" was published on 10 September 2025 by *Science Advances* (Vol. 11, Issue 37). The abstract is as follows:-

Salicylic acid (SA) is a key defense hormone shaped by temperature. High temperatures suppress, while low temperatures enhance, SA biosynthesis and signaling, thereby influencing plant immunity and temperature resilience. This review synthesizes current understanding of how temperature modulates SA pathways and their cross-talk with other hormones to balance growth and defense. We also propose a conceptual model positioning SA as a central integrator of temperature perception, immune regulation, and hormonal signaling. However, key questions remain: How do plants sense temperature shifts to regulate SA dynamics? How do temperatureinduced epigenetic changes in SA pathways contribute to long-term adaptation? And how can these insights inform crop improvement? Addressing these gaps is essential for developing climate-resilient crops.

Read paper.



## ANCIENT PLANT PROTEIN OFFERS NEW PATH FOR BROAD-SPECTRUM PATHOGEN RESISTANCE IN CROPS

#### RIKEN, PHYS.ORG NEWS, 4 SEPTEMBER 2025

Researchers led by Ken Shirasu at the RIKEN Center for Sustainable Resource Science (CSRS) in Japan have identified an ancient protein that has the potential to help defend plants against tens of thousands of different bacteria and other pathogens.

Dubbed "SCORE," this receptor detects cold-shock protein—variations of which are found in more than 85% of known bacteria, as well as fungi and insects.

Experiments published in <u>Science</u> reveal that simply swapping out key sections of SCORE with substitutes can predictably change the type of cold-shock protein, and thus pathogen, it recognises. This strategy could be used to engineer synthetic SCORE and provide plants, particularly crops and trees, with a means to defend themselves against whatever pathogens are plaguing them.

When flowering plants such as rice, wheat, olive trees, and bamboo become infected with pathogens, they are smaller and have less yield.

Fortunately, plants have receptor proteins that recognise molecules from pathogens when the two fit together, triggering an immune response. Unfortunately, no immune receptor recognises every current and future pathogens. However, recent research has shown that immune receptors specific to plants from one branch of the plant family tree, such as cabbages and broccoli, can be transferred to another lineage, like tomatoes and potatoes, giving them a defense that they don't naturally have. This sounds easy, but the reality is that of the hundreds of thousands of possible receptor-microbe pairs that exist in nature, to date, scientists have identified less than ten, and all in model species with well-known genomes.

Without knowing which receptors recognise which microbes, not much can be done to improve conditions in the field. In their new study, Shirasu and his group at RIKEN CSRS focused on developing a strategy for identifying these pairs.

Starting with over 1,300 receptors from the genomes of 350 plant species, the researchers eventually identified an unknown immune receptor in the pomelo, a common citrus plant. A series of experiments revealed that this receptor reacts to some, but not all, cold-shock proteins. The researchers thus named it "Selective COld shock protein REceptor," abbreviated as SCORE.

They determined that SCORE recognises a small section of cold-shock proteins—called csp15 because it's 15 amino acids long. Swapping out some of the csp15 amino acids with others changed which core-shock protein SCORE could recognise.

Detailed genome analysis showed that most pathogens, except viruses, produce at least one type of cold-shock protein. Comparing species, the team found that although most of the 15 amino acids in csp15 are conserved across species, locations 6, 7, 14, and 15 in the sequence vary tremendously.

The researchers also found over 60 variations in SCORE that were specific to different plant lineages, and traced its origin to the last common ancestor of all flowering plants. This means that many of the plants that we use for food have variations of this immune receptor. "This was a particularly unexpected finding," explains co-author Yasuhiro Kodata. "The extensive natural variation in CSP recognition across SCORE orthologs from different plant lineages suggests that this kind of immune receptor has repeatedly evolved to fine-tune pathogen detection through specific amino acid substitutions."

Analysis of all the different SCOREs revealed the specific locations in its amino acid sequence that vary from lineage to lineage, and based on the charge, it was possible to predict which csp15s a given SCORE can recognise.

The next logical step was to take pomelo SCORE and engineer new versions that recognize different pathogens by swapping out the key sections with alternatives. For example, although natural pomelo SCORE does not recognize core-shock protein from Ralstonia, Erwinia, or *Xanthomonas* species of bacteria, the researchers synthesised a new SCORE version that reacts to all of these. "In the short term," says Shirasu, "this study provides a new framework for identifying and engineering immune receptors from non-model plants, especially long-lived perennials, for which genetic tools are limited."

First author, Bruno Pok Man Ngou, added, "Our next objective is to introduce engineered SCORE variants into economically important crop species in efforts to confer broad-spectrum resistance against pathogens and pests. This offers a sustainable approach to enhancing disease and pest resilience in agriculture and contributes to global food security."

# ESTIMATING THE CLIMATE CHANGE-DRIVEN GLOBAL DISTRIBUTION OF FUSARIUM PROLIFERATUM AND MYCOTOXIN RISK ASSESSMENT UNDER FUTURE WARMING SCENARIOS

A paper by Aya Tagyan *et al.* titled "Estimating the climate change-driven global distribution of Fusarium proliferatum and mycotoxin risk assessment under future warming scenarios" was published on 12 November 2025 by *Frontiers in Forests and Global Change* (Vol. 8). The abstract is as follows:-

Introduction: Fusarium proliferatum is a globally distributed fungal pathogen of major agricultural significance, responsible for considerable crop losses and the production of hazardous mycotoxins that endanger food security and human health. Climate change is expected to modify the geographic distribution of plant pathogens, allowing their spread into previously unsuitable regions.

Methods: This study employed the Maximum Entropy (MaxEnt) species distribution modeling approach to evaluate the potential impacts of climate change on the global distribution of F. proliferatum under different Representative Concentration Pathway (RCP) emission scenarios. A total of 347 species occurrence records were obtained from the Global Biodiversity Information Facility (GBIF) and spatially filtered to minimize sampling bias. Bioclimatic variables, primarily temperature-related factors, were identified as key environmental determinants through systematic variable selection and correlation analysis. Model performance was evaluated using the Area Under the Curve (AUC) metric.

Results: The MaxEnt model demonstrated excellent predictive accuracy (AUC = 0.844). Current distribution maps revealed high environmental suitability in tropical and subtropical regions, with moderate suitability in temperate zones. Future projections for 2050 and 2070 under both moderate (RCP 2.6) and severe (RCP 8.5) emission scenarios indicated notable poleward range expansion, particularly into northern Europe, northern Asia, and northern North America. The most substantial distributional shifts occurred under the severe emission scenario for 2070, showing extensive expansion of highly suitable environments into previously marginal regions. Temperature seasonality was identified as the most influential limiting factor globally.

Discussion: These findings suggest that ongoing climate change will substantially broaden the geographic range of F. proliferatum, heightening mycotoxin contamination risks in new agricultural areas and threatening food security in temperate zones historically unexposed to this pathogen. The study provides critical insights for developing proactive surveillance, biosecurity policies, and adaptive management strategies to mitigate the escalating risks posed by this economically important fungal pathogen under future climatic conditions.

Read paper.

# BIOFILM TAKES FLIGHT AS SAHARAN BACTERIA SHIELD THEMSELVES TO SURVIVE DUST STORM JOURNEYS

#### TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY, PHYS.ORG NEWS, 20 AUGUST 2025

How do living bacteria survive on the surface of dust particles carried by desert storms from the Sahara and Egypt to Israel?

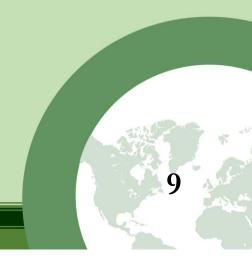
As a follow-up to a previous study in which they showed that species of Firmicutes, including Bacillus, are active players in dust storms, Dr. Naama Lang-Yona's lab in the Technion Faculty of Civil and Environmental Engineering conducted a joint study with Dr. Ilana Kolodkin-Gal's research group at the Scojen Institute for Synthetic Biology at Reichman University and discovered that these bacteria can form microscopic biofilms over dust particles. These protective structures shield the bacteria from desiccation, extreme radiation, and severe nutrient scarcity during their atmospheric journey.

The research, published in <u>Communications Earth and Environment</u>, contributes to the growing field of atmospheric microbiology. This discipline explores the survival and activity of microorganisms while in the atmosphere, sometimes over thousands of kilometers, and their impact on global cycles, ecosystems, and human health. These processes significantly impact disease patterns, atmospheric CO<sub>2</sub> levels, plant diseases, and even antibiotic resistance dispersal.

"Characterising metabolically active, living bacterial communities is reshaping our understanding of microbiomeenvironment interactions," explained Dr. Lang-Yona. "Our research suggests that the air we breathe contains entire bacterial communities from distant regions, bringing innovative traits that can integrate into local ecosystems, and potentially affect humans."

In this study, the researchers successfully isolated and cultured bacteria brought in by dust storms under atmospheric conditions, focusing on beneficial *Bacillus* strains known for their positive applications in agriculture, construction, and medical probiotics.

The team believes that natural selection during dust storms favors more innovative bacterial strains—a phenomenon that could potentially enhance their practical applications. This study also expands the traditional soil microbiome concept to include airborne microbial communities, broadening the known repertoire of survival strategies among these remarkable organisms.



## WILD GRASS OFFERS NEW GENETIC CLUES TO COMBAT DEADLIEST PATHOGEN OF WHEAT

## AMERICAN PHYTOPATHOLOGICAL SOCIETY, <u>EURKALERT NEWS RELEASES</u>, I I NOVEMBER 2025

A new study published in <u>Molecular Plant-Microbe Interactions</u> (MPMI) has identified <u>Aegilops cylindrica</u>, a wild grass closely related to wheat, as a powerful genetic reservoir for resistance against the devastating fungal pathogen <u>Zymoseptoria tritici</u>, the cause of Septoria tritici blotch (STB). These findings open the door to breeding more resilient wheat varieties and reducing the global dependence on chemical fungicides.

The research team, led by Eva Stukenbrock from the Botanical Institute in Kiel, Germany, and the Max Planck Institute for Evolutionary Biology in Plön, Germany, discovered that *A. cylindrica* possesses unique defense mechanisms not found in cultivated wheat. By combining genetic and microscopic analyses, researchers revealed that resistance to *Z. tritici* in this wild species is established at an early stage of infection, right at the leaf's stomatal openings, where the fungus would normally gain entry. Moreover, transcriptome profiling exposed how virulent fungal isolates suppress key immune-related genes in *A. cylindrica*, whereas *A. cylindrica* maintains their expression when infected with avirulent and wheat-specialized isolates to block infection.

"What excites us most," Stukenbrock noted, "is that *Aegilops cylindrica* provides entirely new insights into plant immunity against *Z. tritici* that were previously unknown in wheat. This discovery offers breeders new targets for enhancing resistance and developing more sustainable control strategies."

This is the first study to generate a transcriptome assembly for *A. cylindrica*, a species with a simpler genome yet strong parallels to wheat's pathogen interactions. The findings not only highlight novel candidate resistance genes but also shed light on how *Z. tritici* overcomes plant defenses by suppressing key immune responses, a process Stukenbrock refers to as "molecular sabotage."

Beyond its implications for wheat improvement, this work advances understanding across plant pathology, genetics, and sustainable agriculture. It underscores the value of conserving wild plant relatives as sources of hidden traits that can help secure global food supplies. "This research expands our view of plant-pathogen interactions and provides a roadmap for developing wheat varieties capable of resisting one of the world's most damaging cereal diseases," the team explained.

#### **CURRENT VACANCIES**

#### Assistant Professor of Plant Pathology and Fungal Biology, The University of California, Davis

The Department of Plant Pathology at the University of California, Davis is seeking applications for a full-time, tenure-track Assistant Professor position in Mycology, with a focus on plant pathogenic, symbiotic, or mycotoxigenic fungi and fungal-like organisms (e.g., oomycetes). Please visit the <u>Plant Pathology website at UC Davis</u> for further information and <a href="https://recruit.ucdavis.edu/JPF07339">https://recruit.ucdavis.edu/JPF07339</a> to apply.

To ensure consideration, applications should be received by 1 December 2025.

https://www.isppweb.org/ads/California Davis PPFB AP.pdf.

#### **ACKNOWLEDGEMENTS**

Thanks to Grahame Jackson, Greg Johnson, and Themis J. Michailides for contributions.

11

#### **COMING EVENTS**

#### Plant-Parasitic Nematode Identification Course

12 December – 19 December, 2025

Clemson, South Carolina

Contact Email: <a href="mailto:ckhanal@clemson.edu">ckhanal@clemson.edu</a>

Website: www.clemson.edu/cafls/nematology

#### Plant and Animal Genome Conference (PAG 33)

9 January – 14 January, 2026 San Diego California, USA

Website: <a href="https://intlpag.org/PAG33/">https://intlpag.org/PAG33/</a>

#### 8th International Bacterial Wilt Symposium (IBWS)

22 March – 26 March, 2026 Wageningen, the Netherlands Website: <u>event.wur.nl/ibws2026</u>

#### 71st Annual Conference on Soilborne Plant Pathogens and the 56th California Nematology Workshop

24 March – 26 March, 2026

Kearney Agriculture Research and Extension Center in

Parlier, CA, USA

Website: soilborneplantpathogens.org

### 21st Reinhardsbrunn Symposium 2026 – Modern Fungicides and Antifungal Compounds

19 April – 23 April, 2026 Friedrichroda, Germany

Website: <a href="https://reinhardsbrunn-symposium.de/de/">https://reinhardsbrunn-symposium.de/de/</a>

### 36th Symposium of the European Society of Nematologists

1 June – 5 June, 2026

Egmond aan Zee, The Netherlands Website: www.esn2026.nl/home

#### 25th Annual Fusarium Laboratory Workshop

21 June – 26 June, 2026 Manhattan, Kansas, USA Contact: John Leslie <u>ifl@ksu.edu</u>

#### Plant Health 2026

1 August – 4 August, 2026 Providence, Rhode Island, USA Website:

www.apsnet.org/meetings/annual/PH2026/Pages/default.aspx

#### Plant Pathology 2026

8 September – 10 September, 2026 John Innes Centre Conference Centre, Norwich, UK Website: Not yet available

#### 13th Australasian Soilborne Diseases Symposium

14 September – 18 September, 2026 Melbourne, Australia Website: <u>www.asds-apps.com</u>

#### **International Plant Protection Congress**

Dates not announced yet, 2027 Christchurch, New Zealand Website: <u>www.plantprotection.org</u>

#### 13th International Congress of Plant Pathology 2028

19 August – 25 August, 2028 Gold Coast, Queensland, Australia Website: <u>www.icpp2028.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 <u>Privacy Information Notice</u> 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>

## SUBSCRIBE OUR NEWSLETTER









