

IPSN NEWSLETTER



IPSN

International Plant
Sentinel Network

Plant Health Week



2025 Special Edition



Raising awareness and calling for action to protect Plant Health

Welcome to this special edition of the IPSN Newsletter with a focus on the celebration of global efforts in plant health and biosecurity for National Plant Health Week and International Day of Plant Health.

In this issue, you can explore valuable resources and exciting updates on practices and projects that are contributing in safeguarding our plant collections and plant biodiversity worldwide.





>>> INTRODUCTION TO THE IPSN

2

The International Plant Sentinel Network (IPSN) is a global initiative coordinated by Botanic Gardens Conservation International (BGCI), dedicated to safeguarding plant health and promoting plant biosecurity worldwide.

Established in 2013, the IPSN is a collaborative network bringing together botanic gardens and arboreta, research institutions, National Plant Protection Organisations (NPPOs) and plant health experts from across the world. Its primary goal is to provide an early warning system for emerging plant pest and disease, enabling timely detection and response to threats, while supporting plant health initiatives internationally and biosecurity efforts across botanical institutions.

Currently we are more than 100 members across 38 countries. Looking ahead, we are excited to continue expanding our network, collaborating with professionals and experts worldwide, and inspiring more organisations to join our mission of safeguarding the world's plants.



[MORE INFORMATION ABOUT THE IPSN](#)

Join the International Plant Sentinel Network (IPSN)



IPSN
International Plant
Sentinel Network

100+ gardens, research
institutes and NPPOs working
together for safeguarding plant
health

**JOIN
THE
IPSN!**

Are you interested in plant health and biosecurity?

Become part of the IPSN, and gain access to all our resources, collaborate on plant health initiatives, connect with diagnostic experts, and join an international network working to safeguard plant health.

For more information on how to join:



[Contact us!](#)



>>> PLANT HEALTH MONITORING

3

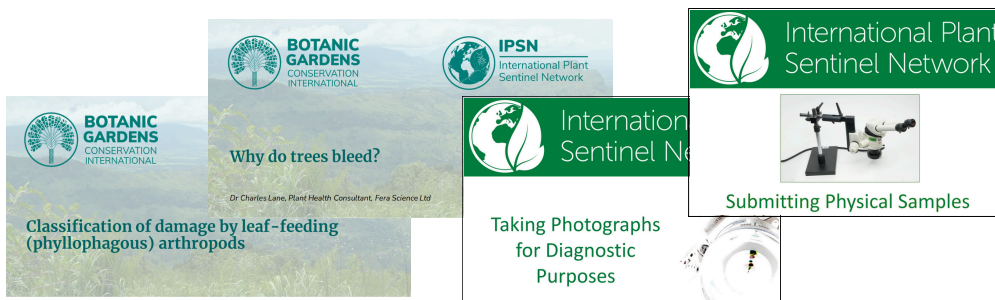
Monitoring plant health is essential for protecting valuable plant collections in botanic gardens and arboreta from emerging pests and diseases. Early detection and informed response strategies help preserve biodiversity and maintain the integrity of living collections.

The International Plant Sentinel Network (IPSN) supports these efforts by providing targeted information resources, guidelines on best practices for surveillance and practical monitoring tools that empower garden staff to identify and report plant health issues efficiently. By integrating these tools into daily operations, gardens become vital contributors to global biosecurity and plant health awareness.

Plant Health Guides

To support the development of skills needed for effective plant health monitoring, the IPSN offers a suite of practical guides and manuals tailored for botanic garden staff and volunteers. These resources are designed to strengthen diagnostic and surveillance capabilities, enhancing the overall management of plant collections.

Covering essential topics such as symptom identification, visual inspection techniques, and best practices for submitting samples and photographs for diagnosis, the guides provide clear, accessible training material. By equipping staff with the knowledge and confidence to detect and respond to plant health threats, these tools play a vital role in building resilient and proactive plant collections.



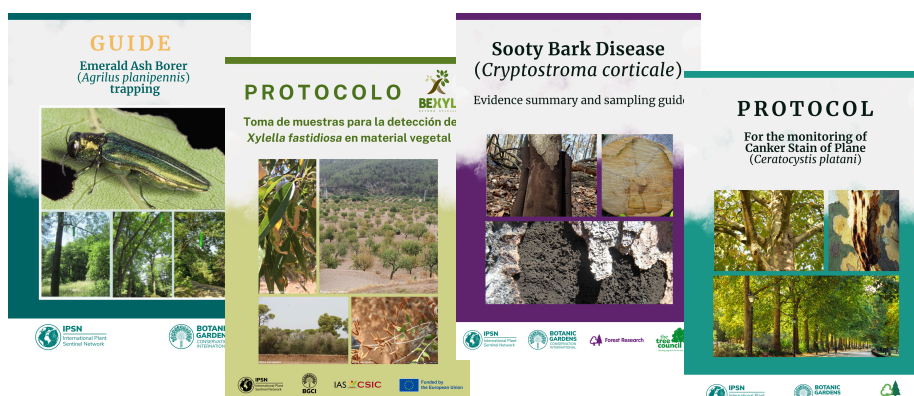
[Access GUIDES](#)

To facilitate accurate and consistent monitoring across institutions worldwide, the IPSN, in collaboration with international diagnostic experts, has developed a series of practical sampling protocols. These protocols provide clear, easy-to-follow guidance for detecting and diagnosing priority pests and diseases, helping to build the skills and confidence of staff and volunteers involved in surveillance activities.

Practical Sampling Protocols

Current resources include a trapping guide for Emerald Ash Borer and a detailed sampling protocol for *Xylella fastidiosa*, developed under the EU-funded BeXyl project with experts from the CSIC institute in Spain. Additional protocols—created with Forest Research (UK)—outline best practices for sampling Sooty Bark Disease and trapping for Canker Stain of Plane.

These tools not only enhance local diagnostic capacity but also contribute to global efforts in early detection and rapid response.



[Access PROTOCOLS](#)



PLANT HEALTH MONITORING

4

Target Monitoring Tool-Kit

The IPSN is continuously working to expand its practical monitoring resources to support plant health surveillance in botanic gardens and arboreta. Developed in collaboration with plant pathologists and entomologists, the IPSN has produced a growing set of informative posters, factsheets, and survey forms focused on globally significant pests and diseases.

Posters focus on highlighting either a specific pest or disease, or a host plant and the range of threats that may affect it, with clear images and concise descriptions to aid in identifying key symptoms.



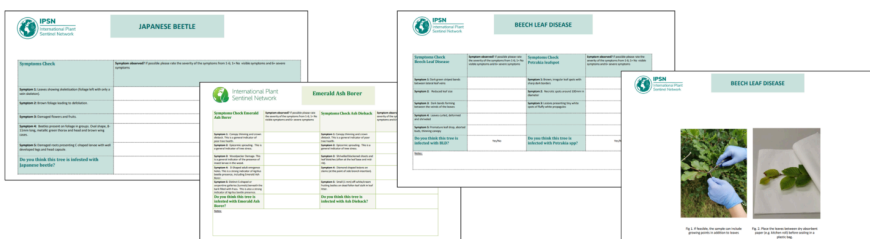
[Access POSTERS](#)

Accompanying factsheets—accessible via QR codes on each poster—provide more detailed information on the organism's biology, distribution, dispersal, and impact.



[Access FACTSHEETS](#)

To complete the kit and facilitate hands-on monitoring, user-friendly survey forms are also available, offering a structured way to collect data based on characteristic signs and symptoms observed on target host species.



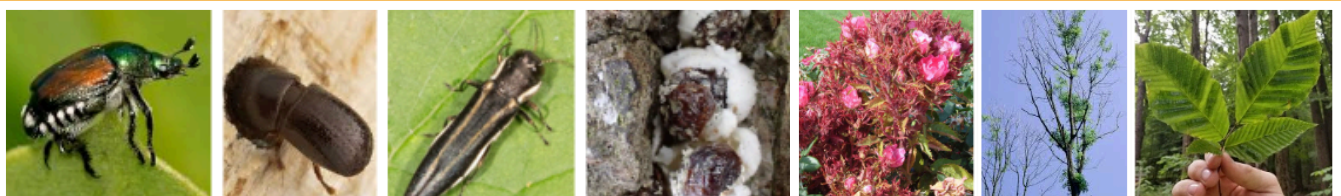
[Access SURVEY FORMS](#)

TAKE ACTION!

This growing season, join us in surveying for one of our priority organisms — with tailored posters, factsheets, and survey forms to support your work in the field. Fill in this form to receive materials and guidance:



[REGISTER YOUR INTEREST](#)





STRENGTHENING BIOSECURITY

5

Effective biosecurity is crucial for protecting biodiversity and plant collections, and raising awareness is at the heart of successful prevention and response.

To support this, the IPSN has developed a range of practical, highly visual information resources and signage to help botanic gardens and arboreta promote best practices. Easy to implement and adapt, these tools guide staff, volunteers, and visitors in reducing biosecurity risks and strengthening everyday plant health measures across collections.

Organism Alert Posters

To support ongoing awareness and rapid response, the IPSN has developed a new series of Organism Alert Posters on emerging organisms that may threaten plant collections. Providing key identification tips and management guidance, these resources support rapid response and awareness.

We encourage institutions to print and display the posters in their facilities to raise awareness among staff, volunteers and visitors.

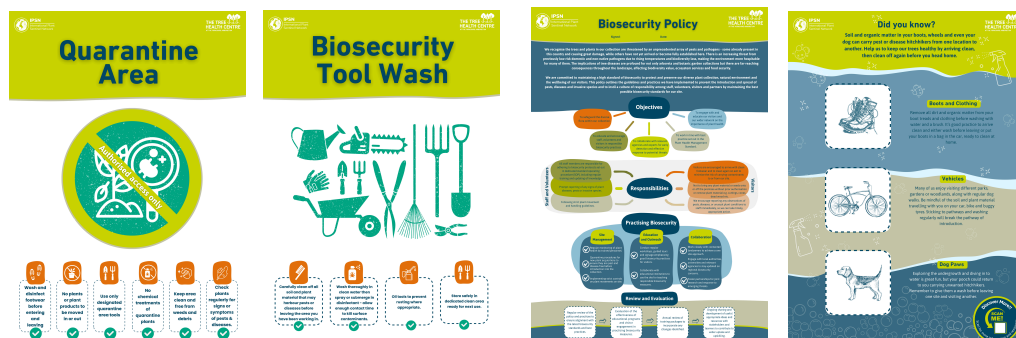


[Access ORGANISM
ALERT POSTERS](#)

The IPSN has recently launched a set of practical biosecurity resources to help staff and volunteers protect plant collections through clear guidance and daily best practices. Developed with the Tree Health Centre at the Yorkshire Arboretum, the latest materials include adaptable posters and signage for public areas and internal staff spaces, covering key topics like hygiene, risk awareness, monitoring.

Biosecurity Signage Resources

Designed for broad use, the posters can be adapted to local needs. We encourage gardens to take advantage of these, ready to go resources, and display them across their sites to strengthen biosecurity awareness and basic best practice routines.



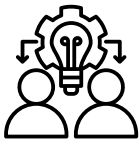
[Access BIOSECURITY
RESOURCES](#)

SHARE YOUR RESOURCES

Get in touch with information, signage and/or educational resources related to pest and disease identification, surveillance, awareness raising and/or biosecurity to help build the range of tools available promotion of best practices.



[GET IN TOUCH HERE](#)



KNOWLEDGE EXCHANGE & CAPACITY BUILDING

6

Effective plant health and biosecurity management in botanic gardens and arboreta relies on strong knowledge sharing and capacity building—especially considering the transboundary nature of pests and diseases.

The IPSN supports this through engaging courses, webinars, and workshops developed in collaboration with regional networks and global experts. These training opportunities not only equip staff and volunteers with the practical skills needed for early detection and response, but also foster valuable connections with key partners (i.e. diagnostic experts, researchers, and National Plant Protection Organizations (NPPOs)).

By promoting international collaboration and integrated approaches, the IPSN aims at helping gardens stay informed, prepared, and resilient in the face of evolving biosecurity challenges.

SE Asia Biosecurity Forum

The first Biosecurity and Plant Health Forum focused on Southeast Asia, hosted by the SEABG Network in collaboration with IPSN, marked a significant milestone in regional cooperation. Participants from six countries convened to discuss IPSN's global initiatives, share expertise on biosecurity practices, and outline future actions for enhancing plant health in the region. efforts.



Key outcomes included the development of a Post-Forum Action Plan addressing critical challenges and the integration of three new Philippine members into the IPSN network, underscoring our growing commitment to strengthening regional biosecurity initiatives.



[Read more here](#)

The first Plant Health and Biosecurity Workshop focused on the Caribbean region, hosted by the CCABGN in collaboration with IPSN took place on 4-6 February 2025. Twenty-three participants from seven countries gathered at Andromeda Botanic Gardens in Barbados to share expertise and strengthen capacity.

Through practical and theoretical sessions on pests, diseases, invasive species, and biosecurity best practices, the workshop supported key targets of the Caribbean Plant Conservation Strategy.

Furthermore it laid the foundation for continued collaboration through IPSN-supported initiatives in plant health monitoring and information sharing across the region.

Caribbean Biosecurity & Plant Health Workshop



[Read more here](#)

AETFAT WORKSHOP

The upcoming IPSN workshop at the [AETFAT Congress in Ghana](#), to be delivered in collaboration with plant health experts from Ghana and Côte d'Ivoire, will aim at emphasizing the vital role of biosecurity and plant health in plant conservation across Africa.

Regional experts will share their experiences and case studies, discuss prioritizing monitoring efforts, and explore aligning policies with community conservation needs.

Through keynote talks, panel discussions, and breakout sessions, the workshop aims at fostering knowledge exchange, identifying regional priorities, and strengthening collaboration to address threats from invasive species, pests, and diseases in the region.





INSPIRING CASE STUDIES

7

We are excited to present a fresh addition to the IPSN website — our Blog Series section, made possible through the fantastic contributions of IPSN members and partners!

This section showcases accessible articles on the most pressing topics in plant health and biosecurity. From plant pests and invasive species to climate-driven distribution changes, biosecurity strategies, detection techniques and much more.

Dive in and explore stories from across the world:



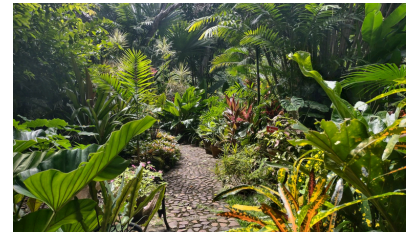
[ACCESS THE BLOG SECTION](#)

Blog from Barbados



Waiting for Mother - A Holistic Approach to Pests (Barbados)

Take a tour of the collections with Sharon Cooke, from Andromeda Botanic Gardens, showcasing their integrative approach to biosecurity practices prioritising biodiversity and fostering ecological balance.



[Read the Blog Post](#)

Invasive pests break barriers: first records of *Trabutina mannipara* and *Monoxia obesula* in a botanical garden in the centre of the Iberian Peninsula (Spain)



Read about how invasive pests and climate change are a new emerging threat to the Mediterranean flora, by Alejandro Santiago González from Botanical Garden of Castilla-La Mancha. [Available in both Spanish and English]

Blog from Spain



[Read the Blog Post](#)

Blog from New Zealand



Unlocking the Power of Botanic Gardens: Assessing Pest Pathogen Risks and Protecting Plant Health in Aotearoa New Zealand

Read this fascinating guest blog post by Mark McNeill who is a scientist at New Zealand's AgResearch Ltd institute working in partnership the Christchurch Botanic Gardens in Aotearoa.



[Read the Blog Post](#)

SHARE YOUR WORK & IMPACT

Get in touch regarding case studies, initiatives, approaches, etc...you would like to share through our BLOG series to be featured on our website and next newsletter issues, contributing to knowledge exchange and awareness raising of the role and crucial role of living collections to plant health and biosecurity.



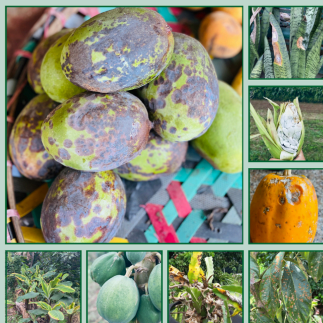
[GET IN TOUCH HERE](#)



>>> OTHER RESOURCES OF INTEREST

8

A HANDBOOK OF COMMON PLANT DISEASE SYMPTOMS



MARK ANGELO BALENDRES
2025

A Handbook of Common Plant Disease Symptoms

This pictorial guide aims to assist researchers, gardeners, and farmers with the first step of plant disease treatment: recognition of symptoms. Photos included were contributed by a global community and depict the physical effects of various viral, bacterial, and fungal infections on plant parts such as leaves, stems, and fruit.

On the author:

Mark Angelo Balendres is a plant pathologist specialising in tropical plant disease diagnostics and management, with a PhD in Agricultural Science (Plant Pathology) from the University of Tasmania, Australia. He is a full professor at the Department of Biology, De La Salle University (DLSU) in Manila, Philippines and heads their Plant and Soil Health Research Unit.

Contact Prof Balendres: mark.angelo.balendres@dlsu.edu.ph



[CLICK HERE TO DOWNLOAD](#)

PineProtect: Exploring the biocontrol potential of *Esteya* spp against the pinewood nematode

Explore how PineProtect uses *Esteya* fungi as a sustainable biocontrol against pinewood nematode, a major threat to global pine forests. This video showcases innovative, eco-friendly solutions for protecting plant health.



[CLICK HERE TO VIEW](#)

Information Resources

- **EPPO Alert list:** [Access here](#)

List launched by the European Plant Protection Organisation (EPPO) to draw the attention of EPPO countries to certain pests possibly presenting a risk to them.

- **The Tree Health Centre Resources Hub:** [Access here](#)

The Tree Health Centre at the Yorkshire Arboretum has available a hub where you will find links to reputable sources of information. New resources are added as they become available.

- **FERA Guidance - Biosecurity Best Practices Protocols for Parks and Gardens:** [Access here](#)

These Best Practice Protocols provide helpful advice on the 'biosecurity' measures which can help to protect parks and gardens from pest and disease attack. A complementary set of protocols have been produced for nurseries, retailers and landscapers.

- **Plant Health Centre - Scotland:** [Access publications](#) and [guidance resources](#)

Explore a range of resources from the Plant Health Centre, designed to strengthen resilience to plant health threats by translating science into practical solutions for policy, planning, and response.

- **IPPC e-learning courses:** [Access here](#)

The IPPC offers a comprehensive suite of free, certified e-learning courses aimed at enhancing the capacity of NPPOs and plant health professionals worldwide.

- **IFAO e-learning academy - IPPC Plant Health Campus:** [Access here](#)

A free, multilingual e-learning platform by the IPPC and the FAO eLearning Academy, offering e-learning courses, guides and technical information focused on key phytosanitary systems.

- **CABI courses:** [Access here](#)

The CABI Academy offers a comprehensive suite of free online training modules focused on crop pest diagnosis and management.

Training courses



We hope you had a inspiring reading!

Contact us:

Lara Salido: lara.salido@bgci.org

Itxaso Quintana: itxaso.quintana@bgci.org

Keep up to date with all IPSN news by following us:

Web: plantsentinel.org

Bluesky: [@ipsn-bgci.bsky.social](https://bsky.app/profile/@ipsn-bgci.bsky.social)

X: [@IPSN_BGCI](https://twitter.com/IPSN_BGCI)

***Remember: Update your BGCI GardenSearch
profile and collection information in PlantSearch.**

Updating your GardenSearch profile and uploading your living and seed collections into PlantSearch will facilitate the reciprocal use of our tools, as well as facilitating the identification of gardens with specific plants of interest for IPSN projects.

Please find more information on GardenSearch, and how to update your profile [here](#). More information on PlantSearch can be found [here](#), and access [the guide](#) for information how to upload collection information including explicative videos.



IPSN

International Plant
Sentinel Network