



International Association for the
PLANT PROTECTION SCIENCES

NEWSLETTER

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DIGITAL IDENTIFICATION – SUPPORT FOR IDENTIFYING PHYTOPHTHORA SPECIES.

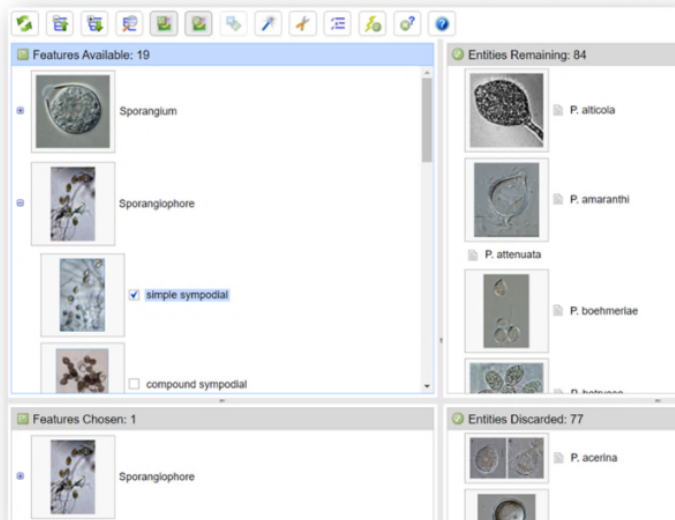
The identification of pests and diseases is a critical component of good plant protection. Traditionally the job of “pest” identification and symptom diagnosis was performed by specialist taxonomists and agronomists. As the number of field experts has declined over the years, alternative tools for providing identification and diagnostic help have been developed. In the USA, an agency whose prime function is to do just this is the Identification Technology Program (ITP - <https://idtools.org/>) that supports the Plant Protection and Quarantine (PPQ) Division of the US Department of Agriculture. The mission of PPQ is “to safeguard U.S. agriculture and natural resources against the entry, establishment, and spread of economically and environmentally significant pests and facilitate the safe trade of agricultural products”. The role of ITP is to keep PPQ’s digital identification resources current through the delivery of a variety of innovative, scientifically valid, digital diagnostic resources to individuals responsible for screening and identifying taxa that pose a risk to U.S. agriculture, natural resources, and to U.S. trading partners.

Over the past 20 years the ITP has contributed to the development of appropriate diagnostic resources by collaborating with taxonomic experts from around the country and the world, providing training and technical support for the development of quality products. Many of the identification tools developed by ITP have been concerned with insect pest identification. However, an identification tool, recently released by ITP – IDphy - provides support for the identification of Phytophthora species, that constitute some of the most important plant diseases worldwide.

The development of IDphy, which involved a large team of scientists, took over 8 years to develop. It covers all the described species within a genus and includes the following range of identification and support tools:

- Detailed protocols for molecular identification.
- Voucher sequences from the types, providing a source of reference material for the tool.
- Filterable image gallery.
- Morphological interactive Lucid key.
- Searchable fact sheets.
- Tabular key for quick reference.
- Background and life cycle/biology information.

Morphological Identification of *Phytophthora* species - based on characters of asexual and sexual phases and colony morphology



Molecular sequences and protocols

Tools to support molecular identification include:

- sequence vouchers for ITS rDNA and COI
- Protocols and SOPs for DNA extraction, PCR, electrophoresis gels, and sequence-based identification.

All voucher sequences in the fact sheets are from the types or from selected well-authenticated specimens.

IDphy has already been released as an online resource (<https://idtools.org/id/phytophthora/>) and is currently in the process of being released as an Android and Apple app.

Other digital identification tools

Apart from developing digital identification and diagnostic tools themselves, the ITP also provides an important service by compiling an online database of recommended digital tools (IDaids -<https://idtools.net/idAids/>) and making it available to the plant protection community worldwide. Currently over 5,500 digital resources are listed in the database.

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NEW DATE FOR 8TH INTERNATIONAL WEED SCIENCE CONGRESS

On behalf of the International Weed Science Society (IWSS) Board of Directors (BOD), the Local Organizing Committee (LOC), and the Scientific Program Committee (SPC), we wish all of you a safe stay and good health amid serious waves of the COVID-19 pandemic.

Due to the recent spurt in COVID-19 cases and delayed vaccination in many countries, the BOD, LOC, and SPC polled the members to determine the fate of **the 8th IWSC**. With this input, and after a series of meetings, we decided to postpone the congress one more time to **December 4-**

10, 2022, to conduct a face-to-face meeting in Bangkok. The submission of abstracts will be reopened later this year. Instructions for the submission process will be given at that time. Those who had already submitted abstracts will have the option of updating it or submitting a different paper since by that time the congress will have been delayed two years.

Regarding the student travel grant awards, we received two batches of applications, totaling over 70 papers. We will announce the winners soon. Due to the postponements, the winners will receive recognition notwithstanding their ability to participate in the congress in December 2022. We anticipate several students to have already changed their status. The winners who can participate will be given the opportunity to update their talk or present a new talk. We will follow the same SOP as before where the Larry Burrill Award winner will be asked to present orally.

Although the 8th IWSC is postponed to December 2022, the 9th IWSC will be held on a regular schedule in 2024. To provide enough time to prepare for the 9th IWSC, the LOC of the next hosting country will be decided shortly through an online poll, with the final decision to be made by the IWSS Board.

We will continue to monitor the situation and update you on the progress of our 8th IWSC preparations periodically.

Prof. Baruch Rubin

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NEW CENTER OF EXCELLENCE ON TRANSBOUNDARY PLANT PATHOGENS

The Central and West African Virus Epidemiology (WAVE) and the West and Central African Council for Agricultural Research and Development (CORAF/WECARD) have established a new Regional Center of Excellence for Transboundary Plant Pathogens, which was inaugurated on May 27 at the Scientific and Innovation Centre of the Félix Houphouët-Boigny University in Bingerville, Abidjan, Côte d'Ivoire. The ceremony was followed by a high-level political and technical dialogue on plant disease surveillance and management in West and Central Africa which took place May 27-28.

The center is made possible by with funding from donors including the Bill and Melinda Gates Foundation, the Foreign, Commonwealth and Development Office and the European Union, with political support by the Economic Community of West African States (ECOWAS) and the Economic Community of Central African States (ECCAS).

“For farmers and all those involved in the agriculture value chain in West and Central Africa, this center is an important part of the solution to sustainably tackling plant pathogens. This is what the center is primarily about,” says Prof. Justin Pita, Executive Director of WAVE.

Regional Centers of Excellence are tools used to address a major challenge in agricultural

research. They are also spaces for the exchange of ideas, the creation of synergies and the pooling of human and financial resources as well as equipment to address a specific challenge. “Our agriculture is under severe stress and this is exacerbated by climate change. That is why the food and nutritional security of our populations has become a major concern. This regional center can provide sustainable solutions that will transform the agricultural economy of West and Central Africa,” says Dr. Abdou Tenkouano, the Executive Director of CORAF.

Besides inaugurating the new center of excellence on transboundary plant pathogens, the Abidjan event has also offered a platform for government ministers from several West and Central African countries alongside other policymakers and experts to brainstorm on the monitoring and management of cassava viral diseases.

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IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world’s crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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