

Suggested Online Resources for Determining “First Report Status”

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When encountering a pathogen on a host for the first time you may wonder whether it is something new in your state or for the US.

If you are considering working on a pathogen to write a first report your search should always include an in-depth search of CAB abstracts and/or Agricola for the host genus in combination with the pathogen genus. Don't forget to check for synonyms of the pathogen name. These databases are usually available online via a university subscription (check with your university library).

Also take a look at the NPDN database (<https://npdn.ceris.purdue.edu/index.php>) in the pest/host index section. The database will provide the number of times that a particular pathogen or insect has been submitted on a specific host plant (confirmations only). Finding a pest/host combination listed in the NPDN database doesn't mean it has been reported in a publication but if you learn it has been uploaded multiple times then it's less likely to be a “new” report.

Below are some specific resources for searching, grouped by pathogen type:

FUNGI:

- “The Big Red Book”: Fungi on Plants and Plant Products in the United States: ARS database: <http://nt.ars-grin.gov/fungaldatabases/fungushost/fungushost.cfm>

This is the gold standard for reports of fungi and includes international reports also.

- MycoBank (www.MycoBank.org) includes geographic information for those fungi deposited in the Centraalbureau voor Schimmelcultures (CBS).

NEMATODES:

- ARS-USDA Nematode Collection Database: <http://nt.ars-grin.gov/nematodes/search.cfm>

TIP OF THE MONTH

- Ferris Nematode Index: <http://plpnemweb.ucdavis.edu/Nemaplex/HostLists/hoststatusindex.htm>
- Nemabase: <http://plpnemweb.ucdavis.edu/Nemaplex/Nemabase2010yesterday/Nemabase%20Search%20Menu.htm>

VIRUSES: www.dpvweb.net/index.php

BACTERIA:

There is no single good online resource for bacterial plant pathogens but J.F. Bradbury's ‘ancient’ 1986 text “Guide to Plant Pathogenic Bacteria” (CABI Press) has an appendix with host information for bacteria. It is dated, but it is one of few resources for bacteria, and captures older information, which might not be in online databases. Bradbury published a second edition with joint author G.S. Saddler but both editions are currently out of print and difficult to locate.

OTHER RESOURCES:

Sometimes international reports can lead to references to reports within the US:

- www.ndrs.org.uk/ (British Society of Plant Pathology new reports)
- Finally Google Scholar is sometimes helpful: <http://scholar.google.com/>

Read more about the importance of writing up first reports at: www.plantmanagementnetwork.org/pub/php/review/2009/biogeography/

The screenshot shows the USDA ARS Agricultural Research Service website. The main heading is "Fungal databases - Fungus-Host Distributions". Below this, there are several search criteria: "Genus", "Species", "Fungus Name", "Or Fungus Group", "Or Fungus Order", "Host Name", and "Or Host Family". Each criterion has a corresponding input field. There are also checkboxes for "Include vars" and radio buttons for "English" and "Español". A note at the bottom right states: "A new option, Locality, has been added to the Display options. This will sort the results by geographic location." The page also includes navigation links like "ARS Home", "About ARS", "Help", "Contact Us", and "En Español".