# CABI Training Materials Distribution Maps of Plant Diseases (DMPD) User Guide

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## Introduction

The need for accurate distribution data for plant diseases is so important. Distribution Maps of Plant Diseases (DMPD), first published in 1942, are a respected, referenced source of such data, expertly compiled, validated and used by plant health organizations around the world. The maps provide an essential complement to expanding knowledge on plant disease distribution. DMPD continues to be the most authoritative source of information on the presence and extent of specific plant diseases.

### Coverage

DMPD covers important diseases affecting agriculture, horticulture and forestry. Two sets of maps are produced each year, comprising mostly of new maps with a number of map revisions (where significant changes have merited a revision). There are 18 diseases per map set covering fungi, bacteria, viruses and, from 1999 onwards, nematodes. By the end of 2013 the total number of different species mapped in the series was over 1150. The database contains the archive of the Distribution Maps as well as the very latest publications.

### **Map Production**

Behind the simple appearance of a map, and its associated references, lies a complex and detailed piece of research. The aim is simple; to ensure that the published map contains the best and most accurate assessment of the known distribution of a particular organism. Species selection for map production is determined by:

- existence or currency of maps of pests of economic or phytosanitary importance
- recent reports of spread
- new proposals for phytosanitary categorization
- customer feedback
- revised taxonomy which may render old map editions invalid

A thorough quality assurance procedure takes place during production to ensure accuracy and includes:

#### Primary source materials from reputable providers

Scientific records from peer-reviewed publications on geographic distribution of species are collated from primary sources derived from CAB Abstracts, EPPO and additional partners.

#### Expert taxonomic verification from subject experts

Subject experts ensure accurate species identification when source searching for distribution data

#### Expert validation of the data and review

All draft maps are sent to expert validators for review and include the Natural History Museum, London, CABI Bioservices and independent expert consultants. EPPO also review final drafts before production

## **Accessing DMPD**

DMPD is a web-based interface. To access the site visit www.cabi.org/DMPD

To sign in to the DMPD site click on the site menu as shown below:

	Sign in Username	Institutional sign in Choose institution   Sign in using my IP
Bacteria	Password	Not yet subscribed?
Search Distribution Ma		Subscribe here
Search over 1600 Distribu	Sign in Remember me	
Enter keyword or phra	Forgotten password?	

There are two ways to login to the database depending on the access options your account has:

Personal	Sign in Username - You must enter a username.	Institutional sign in Choose institution   Sign in using my IP	IP address
credentials	Password	Not yet subscribed? Subscribe here	recognition
	Sign in □Remember me Forgotten password?		

#### By Personal credentials:

If you requested access to the site by a username and password please enter this in to the login box situated in the top left hand corner of the webpage.

#### By IP Address:

If your institution has a subscription to DMPD and you are accessing through your institutions network, the DMPD platform will recognise your IP address as a registered user and automatically log you on to the site. If you aren't automatically recognised click the <sup>Sign in using my IP</sup> button.

# Navigating the interface

The DMPD interface has been designed to enable quick and comprehensive content searches. Below shows an image of the DMPD homepage and the various features displayed.



### Simple site searches

DMPD offers a simple site search using a variety of basic search techniques to search content across the whole of the site such as Boolean operators and Phrase searching. These search techniques can be found in the <u>search techniques reference table</u>.

#### **Conducting general site searches**

A general site search conducts a search across all the various types of content and topics available on the DMPD site. It will return a broad range of search results that will include all material types from all subject areas. It can be a useful place to begin a search.

To conduct a general site search enter your search terms in to the search box located in the search bar of the home page and click the search button as shown below:



### **Conducting filtered site searches**

A filtered site search can be used to limit a search to specific categories of organisms. This will return a narrower range of search results and is particularly useful if you are trying to limit searches to particular fields of interest.

To conduct a filtered site search enter your search terms in to the search box located in the search bar of the home page. Click on the filter options to the right of the search box and select the categories you would like to limit the search to. The *I* indicates which categories have been selected. Below shows the examples for both the subject and content filters:

Search Distribution Maps of Plant Diseases	(	ф Му DMPD:	sign in or registe
Search over 1600 Distribution Maps of Plant Diseases			_
Enter keyword or phrase		Search within topic	- Search
	Limit to selected to	ppics	
Latest content	Bacteria Fungi	<ul><li>Other</li><li>Viruses</li></ul>	t short
Miscellaneous CABI Full Text		reparato oscara j	

Once selected click the Search button.

### **Viewing search results**

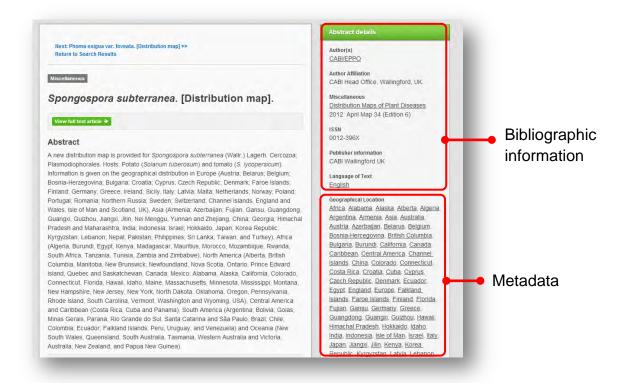
The returned results will be displayed on the search results page as shown below. The figure below the search box indicates the number of returned results from your search string query. Below this will show any filtered categories that were selected for the search. To remove the filters simply click the  $\times$  next to the filtered term. The search results are displayed in the box below and can be ordered by most recently indexed first or relevance. At the top and bottom of the search results screen there are also options to vary the number of records displayed on the current page.

	Search over 1600 Distribution Maps of Plant Diseases	and the second se	
	potato AND "Czech republic"	Search within topic 👻 Search	
mber _	5 results found	Refine results	Filter
records	X Topic: Fungi	Sort Order	Filter display
		Relevance Date (Recent First)	
	1 Results per page: 10 ▼		
		Alphabetical (A to Z)	
	Search results Results	Geographical Location	displa
	Abstract CABI Full Text Spongospora subterranea. [Distribution map]. A new distribution map is provided for Spongospora subterranea (Wallr.) Lagerh. Cercozoa: Plasmodiophorales. Hosts: Potato (Solanum tuberosum) and tomato (S. lycopersicum).	Africa (5) Canada (6) Czech Republic (5) Denmark (5) Finland (5) MORE RESULTS	option
	Information is given on the geographical distribution in Europe (Austria; Belarus; Belgium;	Year A	
	Bosnia-Herzegovina; Bulgaria; Publisher CABI, Wallingford, UK, Citation Distribution Maps of Plant Diseases, 2012, April, pp Map 34 (Edition 6)	1996 (1) 1998 (1) 2005 (1) 2008 (1)	

Below shows an example of an article header from the returned results. You can see the resource type, the article title, the beginning of the article abstract and further bibliographic information for the record.



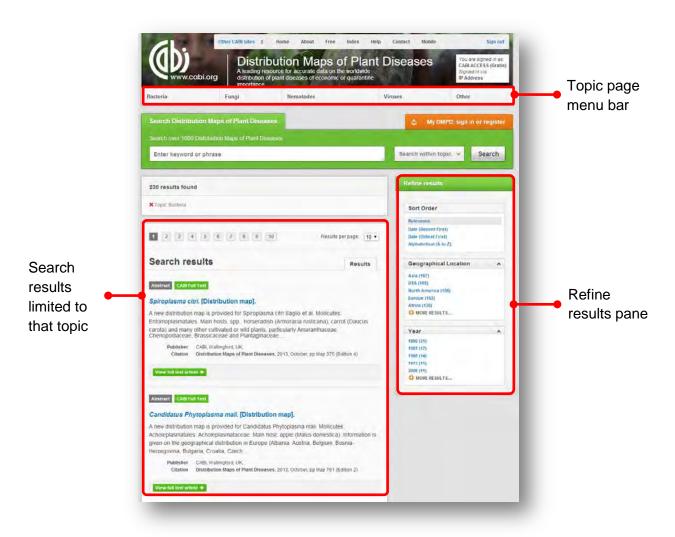
When clicked, the article title will take you to the record page listing the full bibliographic details of the record as shown below.



As well as the full abstract the page will also include the full bibliographic information and indexing keywords that were assigned to the record during the indexing process. This can be found under the Abstract details pane on the right of the page.

# **Topic pages**

Topic pages enable you to focus searching on particular organism categories. The topic page can be selected from the horizontal menu bar shown in the screen shot below. These topic pages are structured in a similar format as the homepage but only include content items that refer to the selected topic. For example, the screen shot below shows the topic page for bacteria. Therefore the latest content section on the bacteria topic page will only show recent articles that refer to those particular organisms. The green underline in the horizontal topic page menu and the page title indicate which topic page you are currently viewing.



When conducting a search from a topic page, the relevant option is automatically selected from the topic filter section as shown below. This means that any search conducted from the topic page will limit searches to only content relating to that subject.

Search Descriptions of Fungi and Bac	tena		🖞 My DFB	
Search around 2000 descriptions of Fungi an				
Enter keyword or phrase		Search within topic	Search	
	Limit to selected topi	cs		Topic
1,744 results found	Animal pathogens	Other		Topic automatical
X Topic: Plant pathogens	🔲 Human pathogens	Plant pathogens		selected

#### **Refine options**

On the right side of the topic page there is a Refine results pane. This allows you to organise the display of the results alphabetically or by recency or relevancy. The refine pane also allows users to refine content even further using the geographic location and year of publication.

Geographical Location	^
Asia (167)	
USA (165)	
North America (156)	
Europe (153)	
Africa (130)	
MORE RESULTS	

Each field is listed in a separate box in the refine results pane. These can be collapsed by using the field box header. Blue text indicates the keyword and the bracketed number indicate the amount of records associated to it.

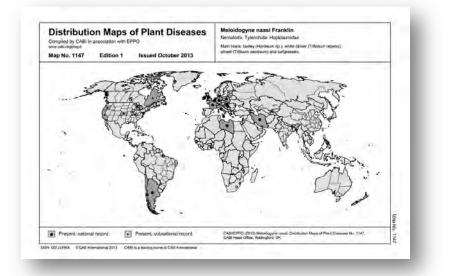
Clicking on a blue keyword conducts a search to return results specific to the selected topic and the relevant keyword from the associated field. For example, below we can see that by clicking on the subject Asia (167) listed in the author field box a filtered search is generated limiting results the author: "plant pests". This is displayed in the filter display at the top of the results page.

O MORE RESULTS	Search Distribution Maps of Plant Diseases	🖕 My DMPD: sign in or registe
	search over 1600 Distribution Maps of Plant Diseases	
	Enter keyword or phrase	Search within topic 👻 Search
	167 results ound	Refine results
	X Topic: Bacteria X Geographical Location: Asia	Sort Order
	1 2 3 4 5 6 7 8 9 10 Results per page: 10 v	Relevance Date (Recent First) Date (Oldest First) Alphabetical (A to Z)
	Search results Results	Geographical Location
	Abstract         CABI Full Text           Spiroplasma citri.         [Distribution map].           A new distribution map is provided for Spiroplasma citri Saglio et al. Mollicutes:	Asia (167) Europe (133) North America (132) USA (130) Africa (118) MORE RESULTS
	Entomoplasmatales. Main hosts: spp., horseradish (Armoracia rusticana), carrot (Daucus carota) and many other cultivated or wild plants, particularly Amaranthaceae,	Year



### **Distribution maps**

On each record page the site will also provide a full text article which will link to the distribution map in PDF format. Simply click on the View full text article >> button to view the map. Each distribution map will provide occurrence points to indicate the presence of the plant disease. If the occurrence point displays I the data indicates the disease is present at a national level with no regional distribution specified. However, if I is displayed the regional distribution data for the species has been verified.



Following the maps is a citation list which indicates the references that have been used to plot the occurrence points. The citation list is grouped into global regions with countries listed alphabetically. Each reference used to create the occurrence point on the distribution map will then be listed for each country. Each reference will also be allocated with a distribution status symbol from the following key:

- X: Present, no details A: Present: widespread B: Present, restricted
- distribution

- C: Present, few occurrences
- (D): Absent, formerly present
- (E): Eradicated
- (F): Intercepted only

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## **MyDMPD**



The MyDMPD feature improves search functionality for users allowing users to:

- Combine and save searches
- Save records
- Export citations
- Create Alerts

To gain the full functionality of MyDMPD and for the system to record and recall your searching activity you must be signed in. It is therefore recommended that you sign-in to MyDMPD at the beginning of all your search sessions on the DMPD site.

#### **Creating a MyDMPD account**

Before you can access the features of MyDMPD you first need to create an account. Click on the Ay DMPD: sign in or register button in the top-right hand corner of the search box as shown below:

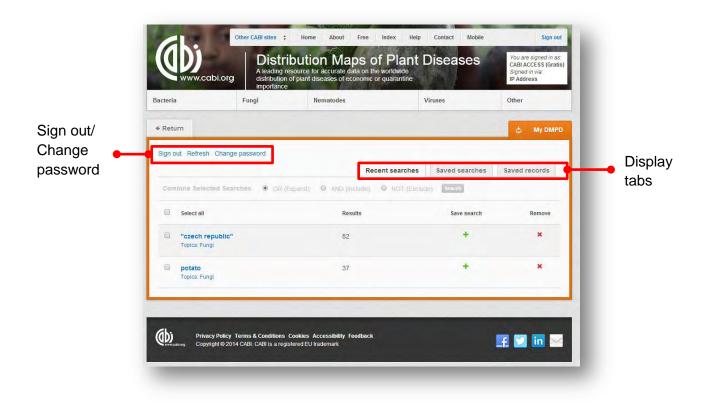
Www.cabi.org	A leading reso	ution Maps of Plant urce for accurate data on the worldwide plant diseases of economic or quarantine	Diseases	You are signed in as CABI ACCESS (Gratis Signed in via: IP Address
Bacteria	Fungi	Nematodes	Viruses	Other
Search Distribution Ma			습 My DN	IPD: sign in or registe

This will direct you to the sign-in page as shown below. The right hand side of the page allows new users to register an account. The left hand side of the page allows users already registered to sign in. Once registered, fill in your unique credentials to sign-in.



lacteria	Fungi	Nematodes	4	/iruses	Other	
• Return				¢	My DMPD: sign in or regist	
	Welcome to My DI	IPD				
	Sign in or register a My DMPD searches and records		your DMPD experience	and manage you	ar saved	
	Sign in to My DMPD Fmail Address		Register for	a My DMPD ac	count	
			Email Addreas			
	Password		Password			
	Sign in 🗧 Remember me		Retype passwo	rd		
	Forgotten password?		-	at l		

Below shows the MyDMPD page. At the top of the display box are the different tabs to display the different types of search activities. By default the display automatically shows the recent searches that you have conducted whilst logged-in to MyDMPD. To the left hand side of the page there is also an option to sign-out or change your account password. To permanently remove a search from your recent search display click on remove button 🔀

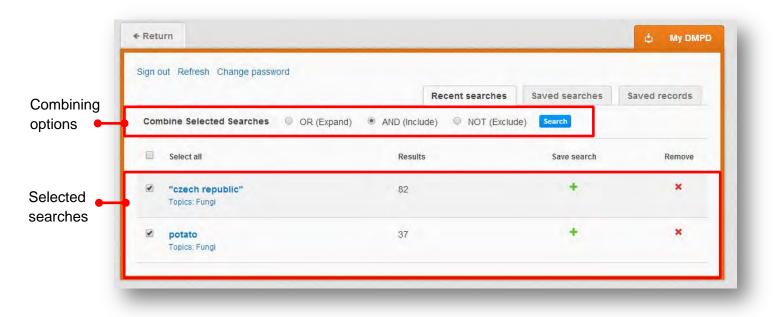




### **Combining searches**

Combined searches are a useful tool for when compiling long and complex search strings which contain multiple Boolean operators and parentheses. To simplify the process and minimise the chance of input errors this function allows the user to perform two or more separate searches and combine them with either the AND, OR and NOT Boolean operators.

In the example below we can see in the recent search tab two relatively complex searches have recently been conducted. These two have been selected using the checkbox I and the AND Boolean operator has been chosen from the combined search options. You can also see these searches have been filtered to certain criteria as explained previously.



Once your options have been selected perform the search by clicking the search button. This will conduct the search and direct you to the results page as shown below. You can see that the search string of the two combined searches is displayed in the search box. By combining this search with the AND operator we have limited the results further but alternatively by using this feature with the OR operator the we can also expand results.



	A leading i	ibution Maps of Plant resource for accurate data on the worldwde of plant diseases of economic or quarantine	Diseases	You are signed in as CABI ACCESS (Gratis) Signed in via IP Address
Bacteria	Fungi	Nematodes	Viruses	Other
Search Distribu	tion Maps of Plant Dise	ases		👌 Му БМРБ
		liscases		
("czech republ	ic") AND (potato)		Search within topic	search
5 results found			Refine results	
X Topic, Fungl			Sort Order	
			Relevance	
8		Results per page: 10 •	Date (Recent First) Date (Oldest First) Alphabetical (A to 2	,
Search res	sults	Results	Geographical L	ocation A
Abstract CAB Ful	Test		Africa (5) Canada (5) Czech Republic (5)	
Fusarium coeru	leum. [Distribution map	<b>]</b> .	Denmark (5) Finland (5)	
	map is provided for Fusariu	m coeruleum [Fusarium solani var ] (Lib.) ex	O MORE RESULTS.	er
	mycola Hypocreales Hosts	potato (Solanum tuberosum), soursop		

### Saving searches and creating alerts

For searches you would like to run on a regular basis, users can save searches for future reference by using MyDMPD. To save a search visit the recent search tab from the MyDMPD page and click on the save search button

ign c	out Refresh Change password			
		Recent searches	Saved searches	Saved records
Соп	ibine Selected Searches.   OR (Expand)  O AND (inclu	ide) 🔍 NOT (Exclud	ie) Search	
	Select all	Results	Save search	Remove
	("czech republic") AND (potato) Topics: Fungi	5	+	×
	"czech republic" Topics: Fungi	82	+	×
	potato Topics: Fungi	37	*	×



To view your saved searches click on the saved searches tab Saved searches. The saved searches tab allows the user to conduct a saved search by clicking on the blue search string displayed. For each saved search there is also an option to set up an RSS feed which automatically notifies the user when new records relating to that search string are added to the DMPD site. These notifications can be viewed through all RSS readers such as Microsoft Outlook and Feedly. To find out more about RSS and how to setup an account with an RSS reader read more here. To set up an RSS feed for your search string click on the RSS feed button

ign c	out Refresh Change password				
		Recent searches	Saved searches	Save	ed records
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	Select all	Res	ults	RSS	Remove
	("czech republic") AND (potato) Topics: Fungi	5		3	×

### Saving and exporting records

The MyDMPD tool also allows you to save individual article records for future reference and export these to reference management software to create your own bibliographies or reference lists. To save a record to your saved records repository you must first be signed into the MyDMPD tool before conducting searches. When signed in and a search has been conducted each record in the displayed results will have a

Save to My DMPD button associated. Click this button to save the record.

("czech republic") AND (potato)		Search within topic	Search
results found		Reline results	
t Yapit: Fungi		Sort Order	
1	Results per page: 10 •	Relevance Date (Recent First) Date (Oldest First) Alphabetical (A to Z)	
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Publisher CABI, Wailingford, UK, Citation Distribution Maps of Plant Disease:	s. 2008. April (Edition 1), pp Map 1020	1996 (1) 1998 (1) 2005 (1) 2006 (1)	
View full lext article 🗧	& Silve to My OMPD	2012 (1)	



To view your saved records click on the saved records tab Saved records. This will display the title of all saved records. To view a specific record, click on the title. Records can be removed individually by using the source button. To delete multiple records check the boxes I next to the records and click the Remove records button as shown below.

Citations can also be exported to reference management software in a RIS file format. To export citations, select the records you would like to be included in the reference list using the checkbox I and click the *composite citations* button as shown below.

gn d	out Refresh Change password	
	Recent searches Saved searches Saved re	ecords
×	Remove records [2] Export citations X Email records [2] Print records	
-		
	Select all	Remove
	Fusarium coeruleum. [Distribution map].	×
0	Synchytrium endobioticum. [Distribution map].	×



# **Appendix A: Search techniques**

Search technique	Example	Description	Function	Reason to use
Single word search	potato	Searches using a single word term	Returns a broad range of results for a particular word/topic	Provides a broad overview of a scientific area of interest
Boolean search	potato AND fusarium	Searches using the operators AND, OR and NOT	Performs searches on multiple concepts that provides specific keyword searching for an area of interest that can include or exclude other concepts.	Allows the user to conduct more controlled searching. Can be used to omit homophones
Phrase searching	potato AND "czech republic"	Use quotation marks before and after a multiple word phrase	Returns results only containing the entire phrase	Narrows searching to records that only contain the whole phrase
Parentheses	(potato AND "czech republic") NOT France	Searches using keywords, Boolean operators and parentheses.	Used for searches that contain multiple Boolean operators to define the correct search logic	Refines searches with Boolean operators further to provide limited search results
Truncation & wild cards	potato*	Uses the symbols * and ? in keyword search	Using the * returns results with different word stems for the root word Using the ? symbol allows users to specify unknown characters	The * allows users to broaden results to keywords with differing word stems e.g. pop* = popular, population, etc. The ? returns results using a keyword that may differ in spelling