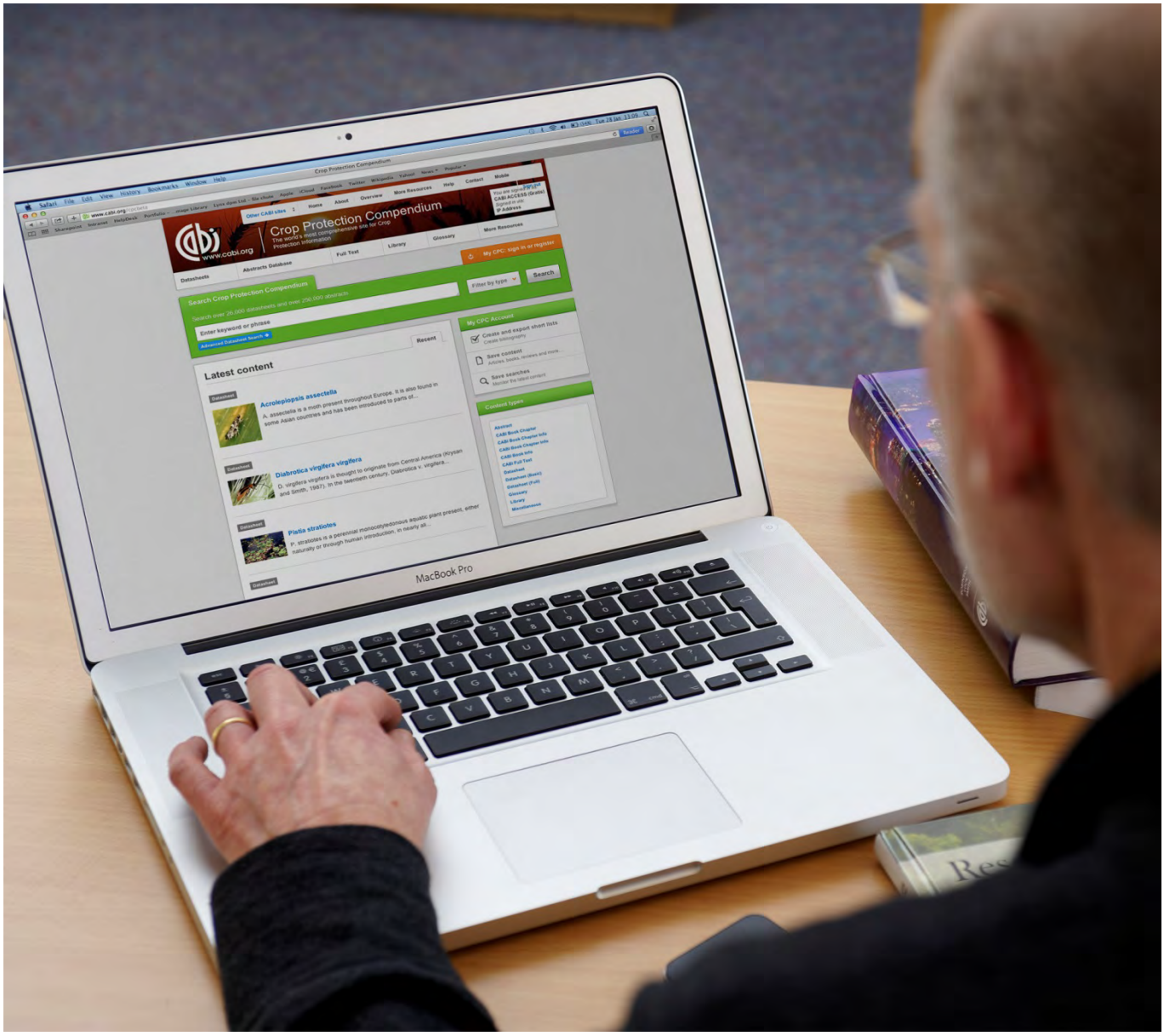


CABI Training Materials

Crop Protection Compendium (CPC)

User Guide

KNOWLEDGE FOR LIFE
www.cabi.org

Contents

Introduction

The Crop Protection Compendium (CPC) is an encyclopaedic, mixed-media, one-stop shop that draws together scientific information on all aspects of crop protection. It features extensive global coverage of pests, diseases, weeds and their natural enemies, the crops that are their hosts, and the countries in which they occur. The CPC includes the following information resources:

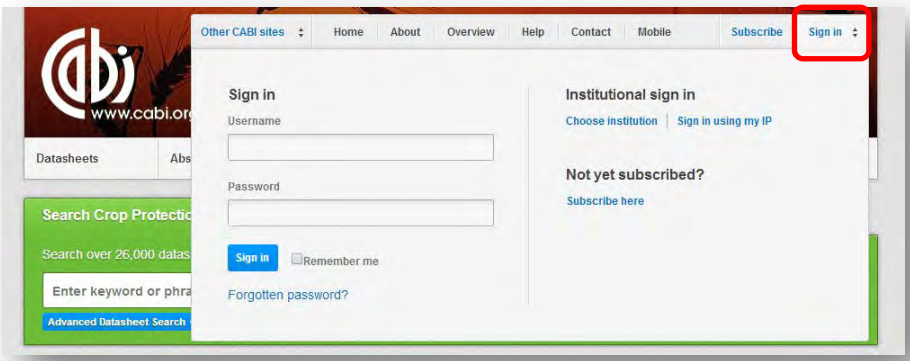
Datasheets:	Compiled by experts, datasheets provide a detailed global summary of pest, crop and natural enemy species or an overview of country distribution
Abstracts records:	Indexed records from a subset of the CAB Abstracts database relating to crop protection.
Full text articles:	Links to the complete scientific record for scholarly articles hosted on the CAB Direct database
Library:	The Library documents include original texts compiled by experts for the compendium across a range of topics including horticultural crops, invasive plants, maize disease and disorders, plant health diagnosis and much more.
Glossary:	Includes over 20, 000 definitions a relating to crop protection and crop pests. Sources include the FAO Glossary of Phytosanitary terms, The Pesticide Manual (BCPC) and The Manual of Biocontrol Agents (BCPC).

The following guide has been designed for all users of the Crop Protection Compendium to highlight the various features available and enable our customers to easily navigate the interface. It will also introduce various search techniques for new users of online databases and explain various strategies that can be used when searching to return the most relevant results.

Accessing CPC

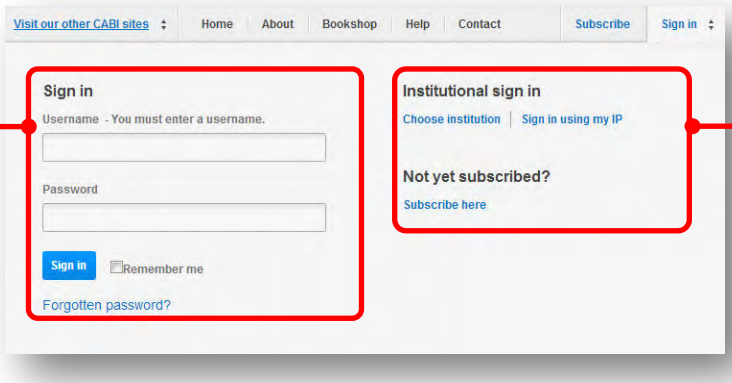
CPC is a web-based interface. To access the site visit www.cabi.org/CPC

To sign in to the CPC click on the Sign in button situated in the site menu as shown below:



There are 2 ways to login to the database depending on the access options your account has:

Personal credentials



IP address recognition

By Personal credentials:

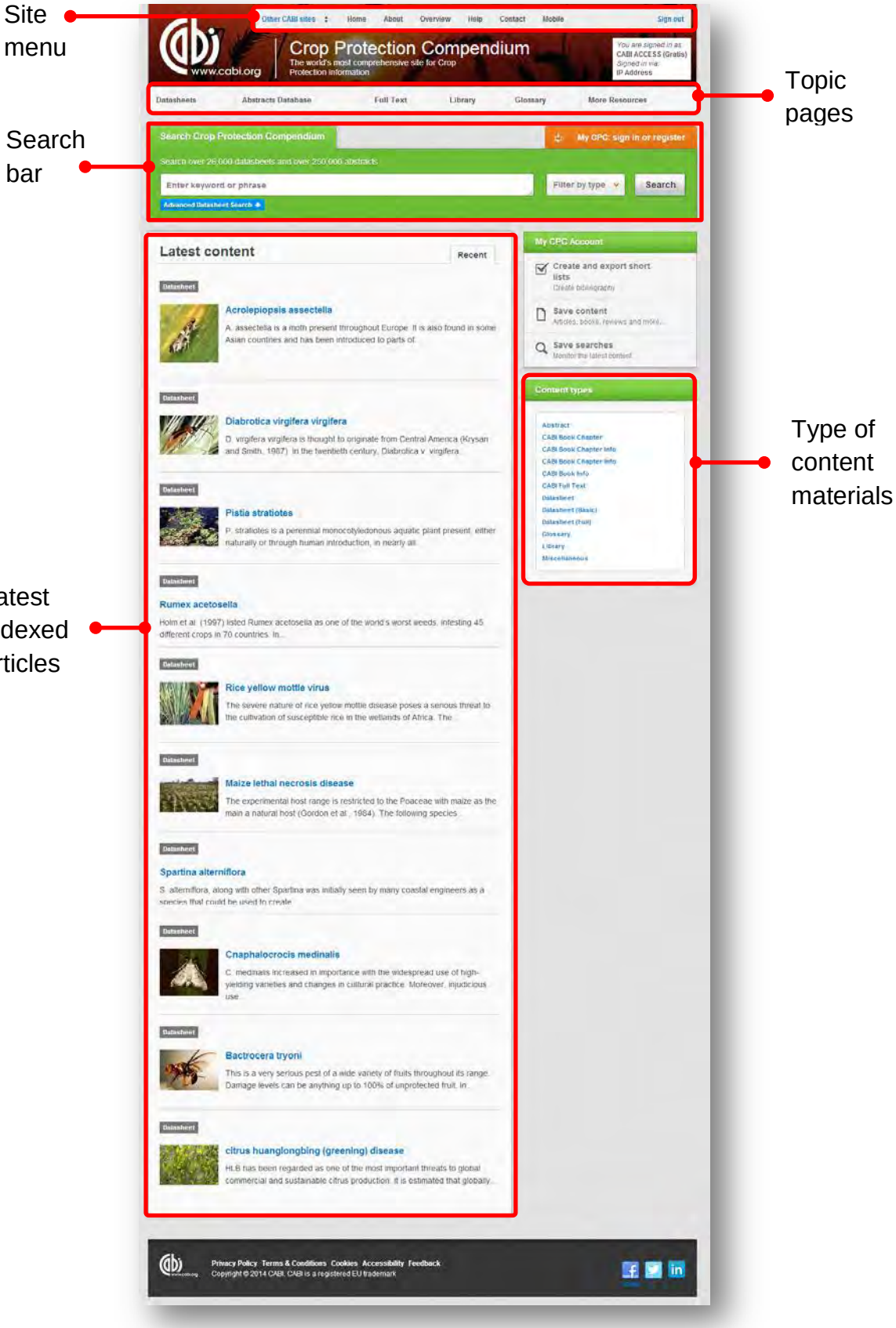
If you requested access to the site by a username and password please enter this in to the login box situated in the top left hand corner of the webpage.

By IP Address:

If your institution has a subscription to CPC and you are accessing through your institutions network, the CPC 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 Sign in using my IP button.

Navigating the interface

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



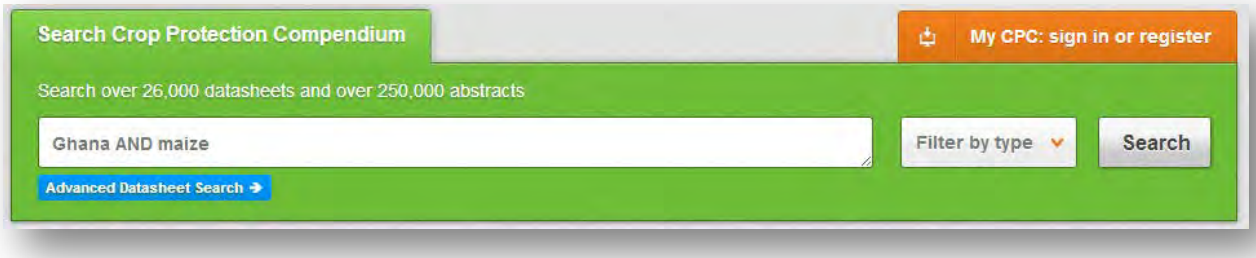
Simple site searches

CPC 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 search techniques reference table.

Conducting general site searches

A general site search conducts a search across all the various types of content and topics available in CPC. 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.

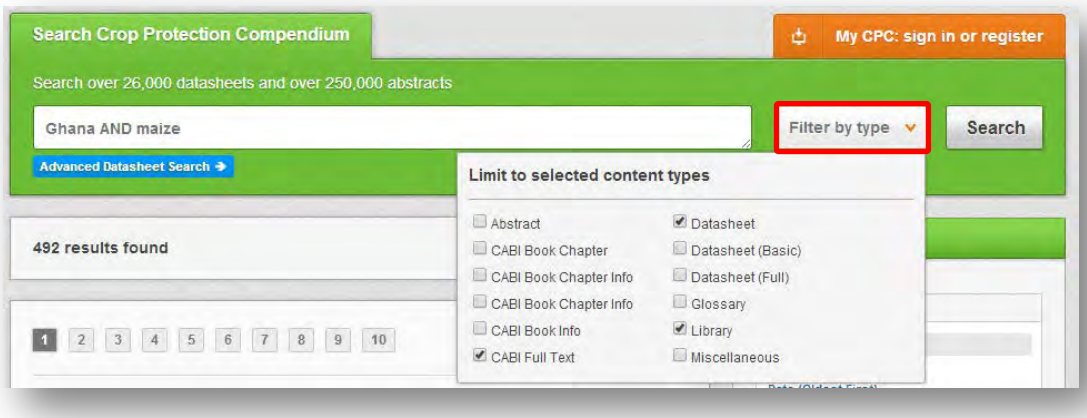
To conduct a general site search enter your search terms in to the search box located in the search bar of the home page and click the Search button as shown below:



Conducting filtered site searches

A filtered site search can be used to limit a search to types of content hosted on the CPC site. This will return a narrower range of search results and is particularly useful if you are trying to limit to specific material types.

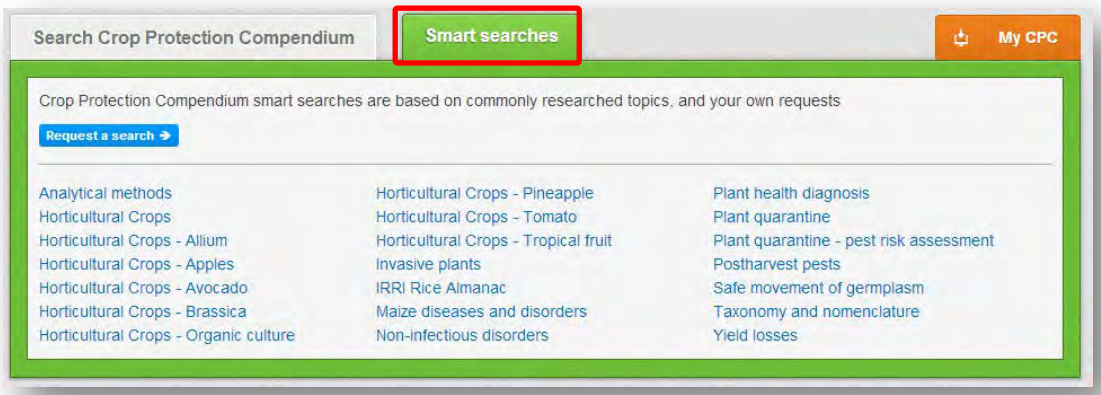
To conduct a filtered site search enter your search terms in to the search box located in the search bar of the home page. Click on the filter options to the right of the search box and select the categories you would like to limit the search to. The ☑ indicates which categories have been selected. Below shows an example:



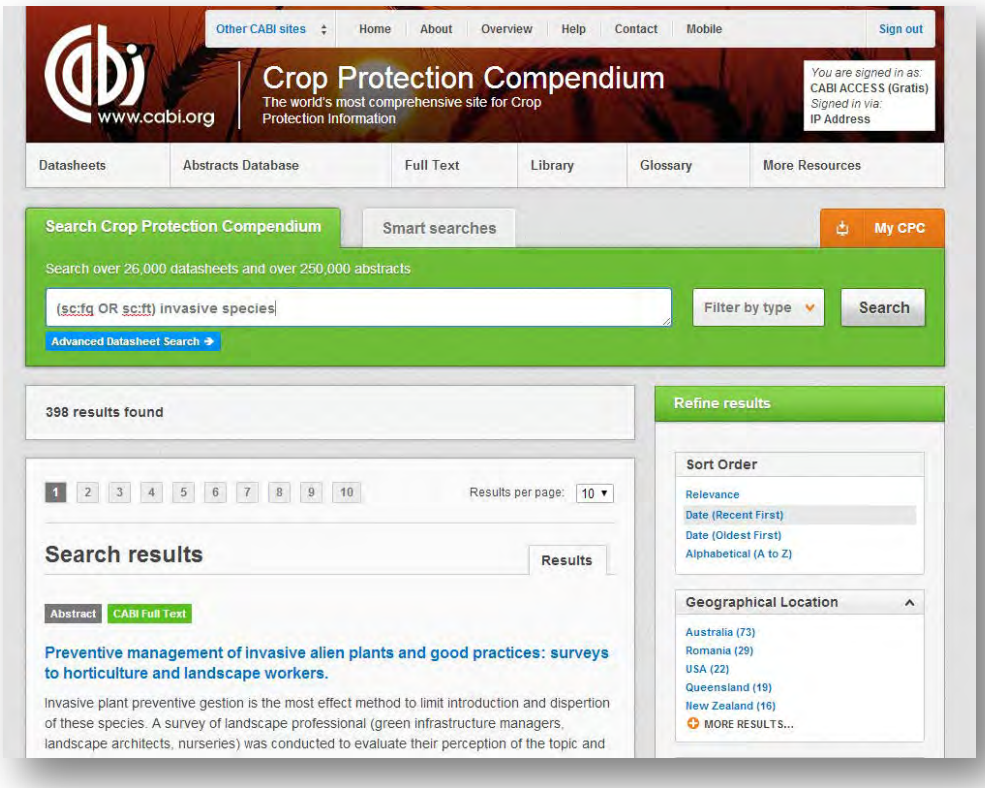
Once selected click the Search button.

Smart Searches

To help you search for literature in common or key topics of interest our subject experts have created predefined search strings. These have been created using complex search techniques such as field tags and multiple Boolean operators to return the most relevant results. To access the Smart searches click on the Smart searches tab above the search box as shown below.



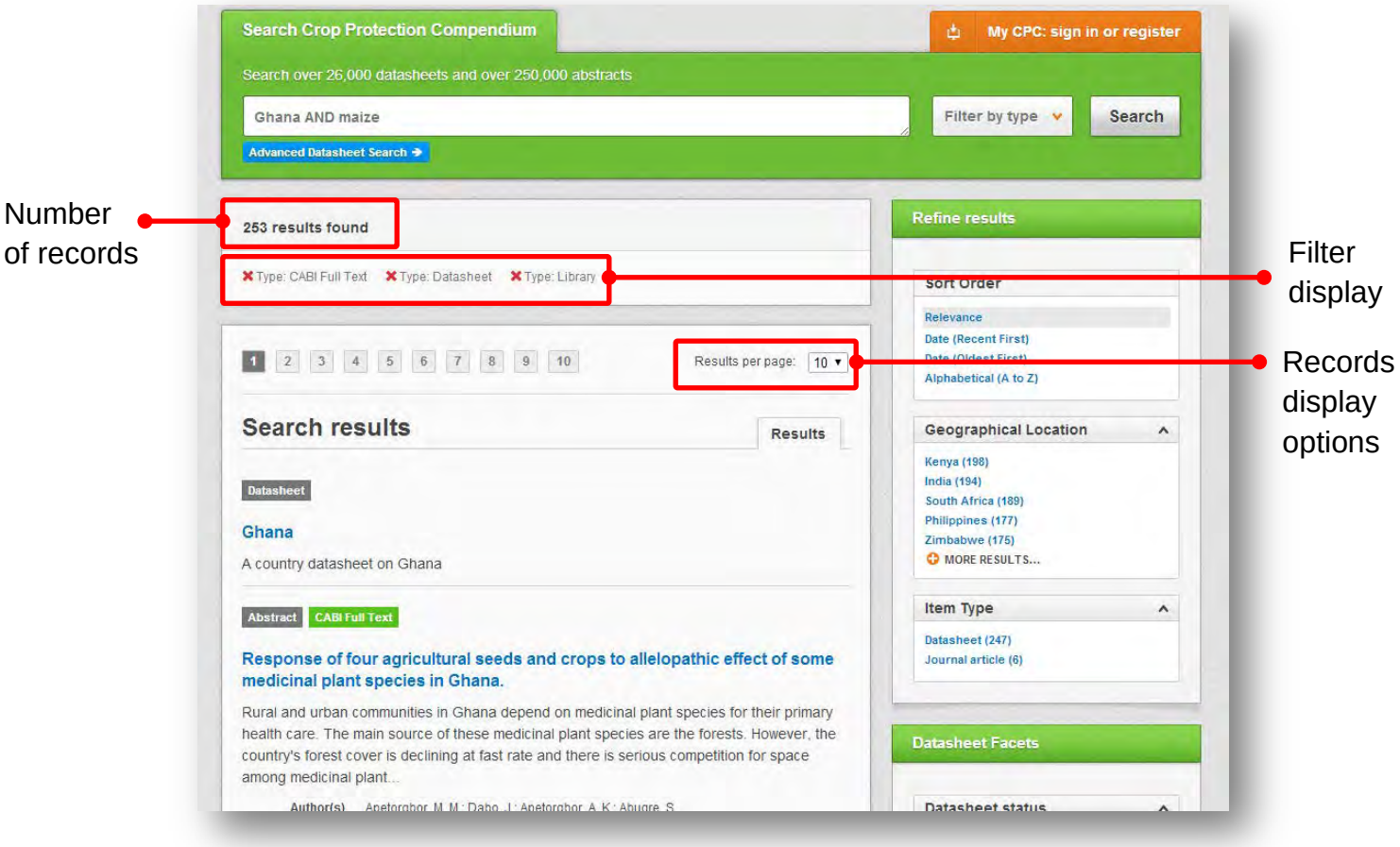
This will show you a list of smart searches that are available. To conduct a smart search click on the topic of your choice. The screenshot below shows you the results for the smart search “Invasive plants”



To narrow results further you can either use the refine panel to the right hand side of the page or add terms manually to the end of the predefined search string.

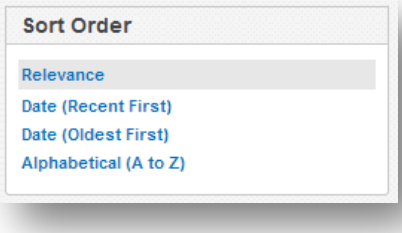
Viewing search results

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 ✖ next to the filtered term. 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.



Ordering results

Results can be displayed either by most relevant records to your search, by publication date or by an alphabetical list records based on the article title. The sorting options can be found in the panel to the right of the results.

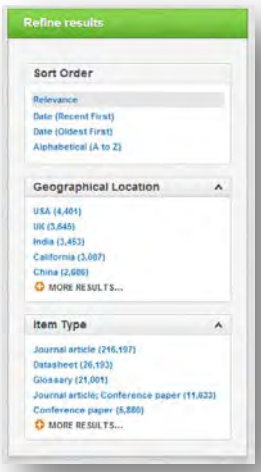


Below shows an example of an article header from the returned results. You can see the resource type, the article title, the leading sentence of the article abstract and further bibliographic information for the record. If the full text article is available the View CABI full text → button is displayed which gives access to the full text article.

Faceted searching

On the right side of the results page there is a refine results pane to allow you to you to narrow results further according to content types and indexing keywords. For general site searches across the site the refine panel is split into three sections:

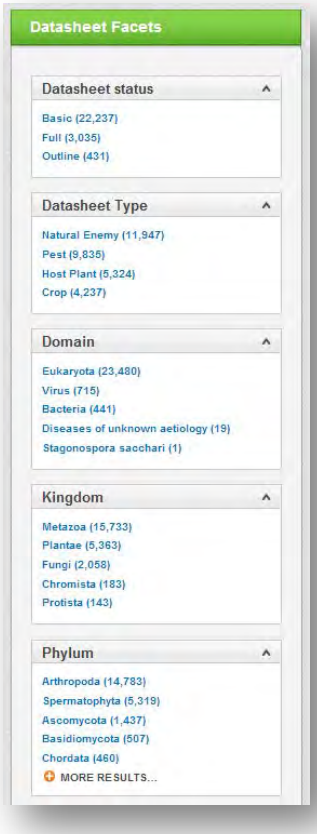
All content faceting:



Geographical location:
Filters results to only show records that refer to particular geographical regions.

Item type:
Filter results to only display particular material/content types

Datasheet faceting (only applicable to results containing datasheets):



Datasheet status:
Filter results to display either basic or full datasheets.

Datasheets type:
Filter results to display particular datasheet type.

Organism categories:
Filter results to display datasheets relating to particular organism categories split by the following taxonomic rank:

- Domain
- Kingdom
- Phylum
- Subphylum
- Class

Abstract facets (only applicable to bibliographic records and full text):

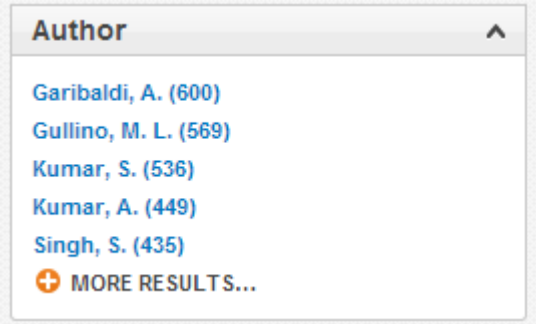
Limit results to literature written by a particular primary, secondary or associated authors

Language:
Limit results to display records originally written in a particular foreign language. A English abstract is provided for over 97% of the content indexed by CABI

Organisms:
Limits results to display only specific organisms or taxonomic group as according to CAB Thesaurus indexing

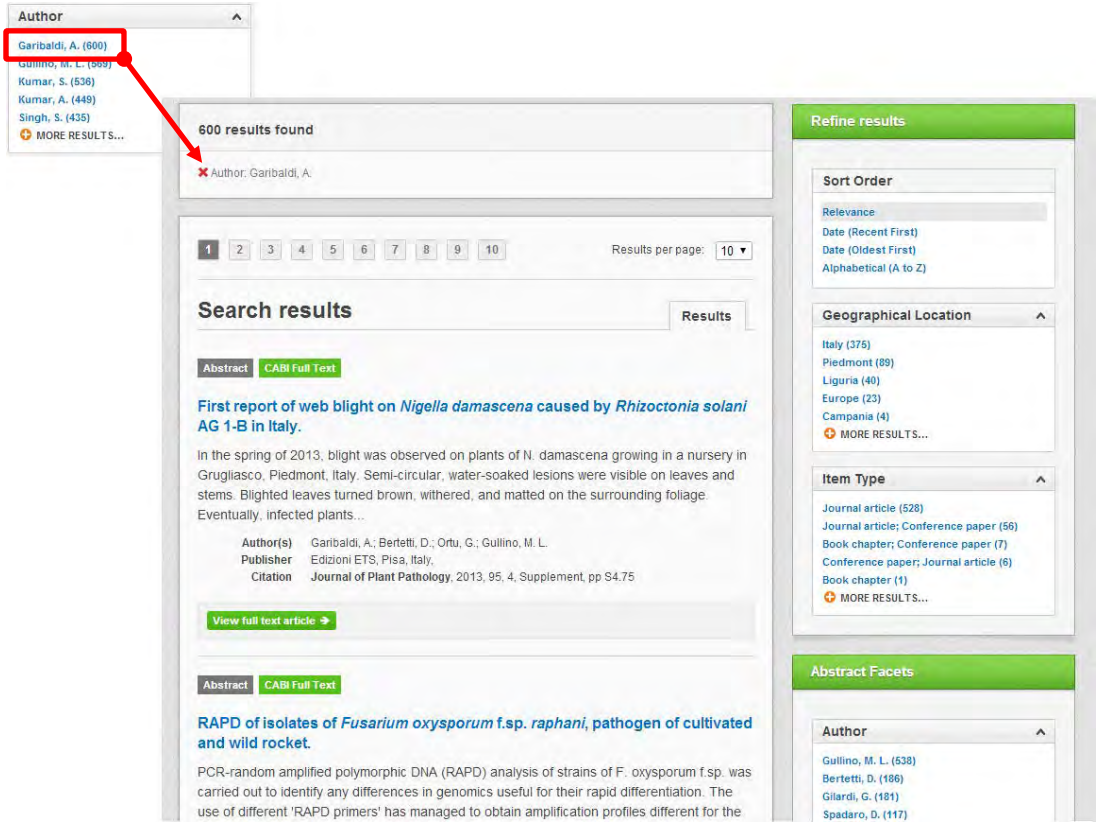
Subject topics:
Limit results to display only records that have specific keywords indexed. These keywords are assigned to the subject super index that encompasses CABI's five metadata fields.

Author:



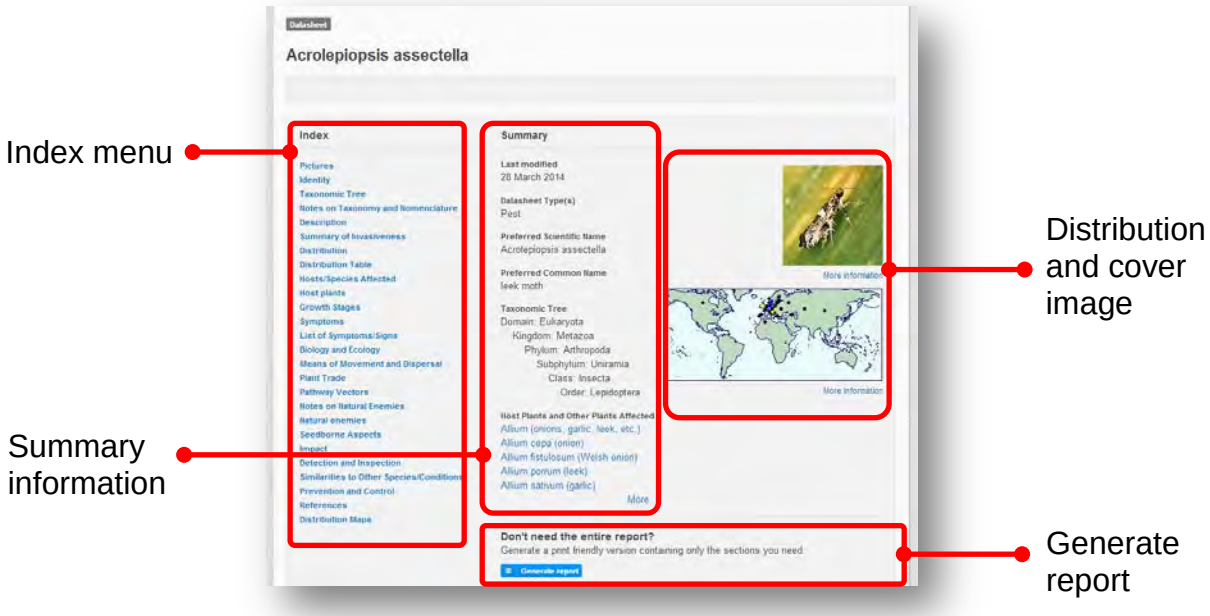
For all refine options each field is listed in a separate box. These can be collapsed by using the ^ in the field box header. Blue text indicates the keyword and the bracketed number indicates the amount of records associated to it.

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 author Garibaldi, A. (600) listed in the author field box a filtered search is generated limiting results to only records written by this author. This is displayed in the filter display at the top of the results page.



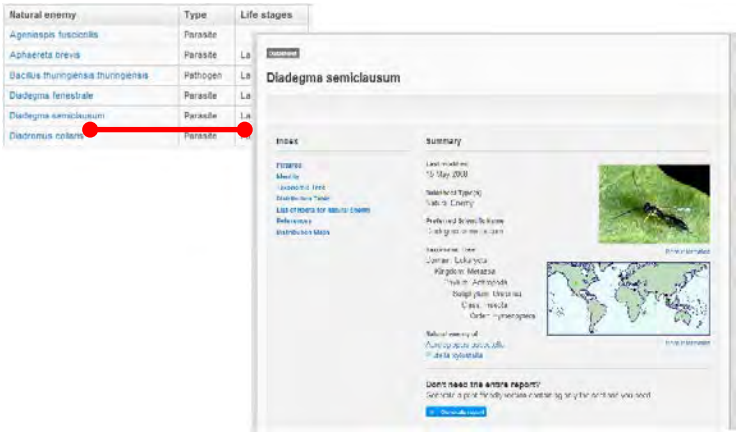
Datasheets

Each compendia product contains different datasheet types. To see the datasheets hosted by CPC and for further information on content covered visit appendix B. To view a datasheet, click on the datasheet title in the results list. The datasheet record is displayed on a single html page. At the top of the page a summary is provided giving a brief outline of key information contained in the datasheet. This will vary depending on the datasheet type but generally includes the publication date/last modified date, datasheet type, nomenclature and taxonomy. An index is displayed listing the full contents of the datasheet with clickable links to each section.



Lists and intuitive linking

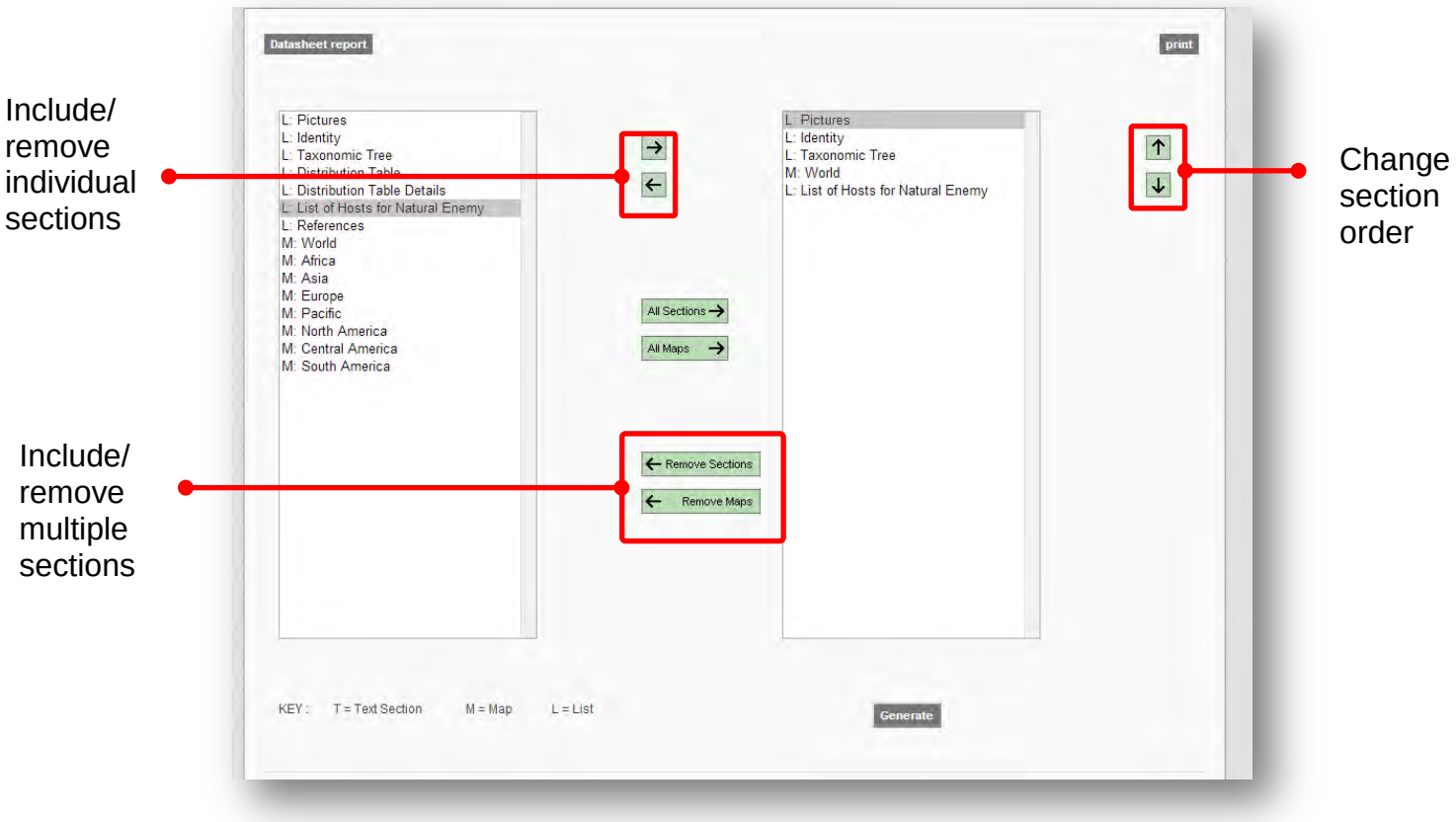
One of the aims of the Compendium is not to be just a flat, encyclopaedic reference, but to offer dynamic linking to influence problem solving and information gathering. Different datasheets have been designed to accumulate useful lists of related information that are specific to each datasheet type. Intuitive linking has been used in these lists to link content. For example, from the natural enemies list taken from the *Acrolepiopsis assectella* datasheet we can link out to a datasheets on *Diadegma semiclausum*



Generate report

The report function allows users to create bespoke reports from the various components of a datasheet available (texts, tables, maps and pictures). These bespoke reports can then be printed or pasted in to other documents. This can provide users with useful printed reference materials that can be used in presentations, as study support materials or practical field reference notes. This is especially useful for users in countries or regions with limited internet access.

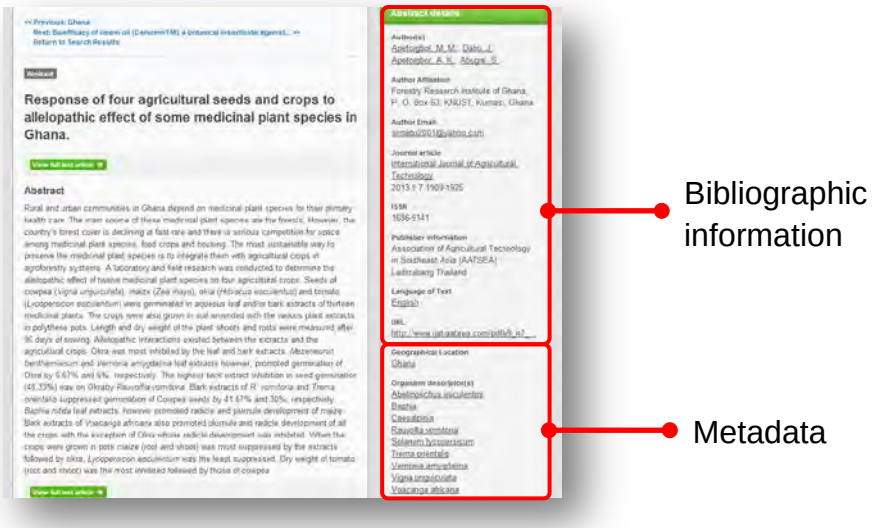
To generate your own report click on the Generate report button located at the top of the datasheet. This will display the report page as shown below and allow users to select specific sections from the datasheet. The left hand column shows the title of the sections available and indicates the type of section it is (T = text, L = List, and M = Map). The right hand column displays the information sections you have selected to be included in your report. To include a information section in your report select the section of interest from the left hand column and click the → button to move it to the right hand column. To remove a section from your report simply select the section and click the ← to remove it from your report column. The ↑ and ↓ buttons can be used to change the order of information sections in your report.



There are options to add or remove multiple groups of maps and information sections using the buttons as indicated above. Once you have selected all the sections you require click the Generate button.

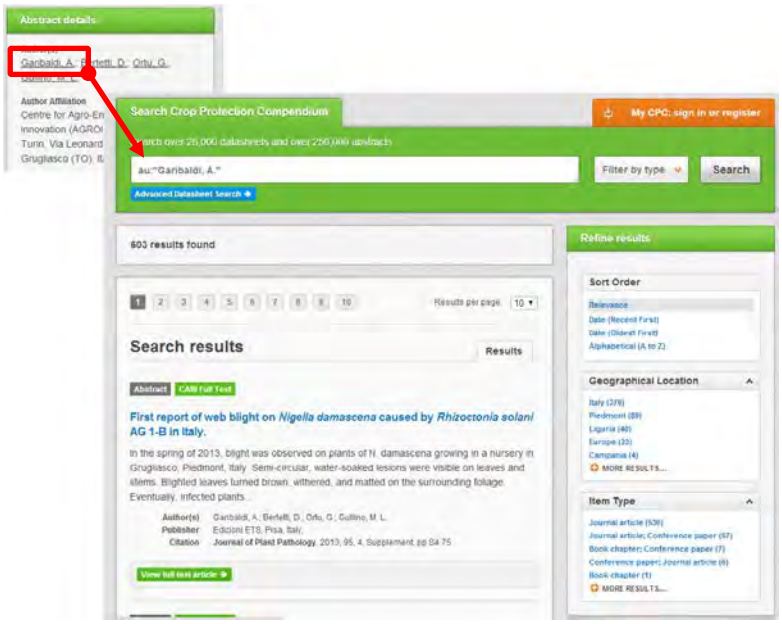
Bibliographic records and full text

To view a records full bibliographic information click the article title in the results list to see the full record page.



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.

All these terms are intuitive links which when clicked performs a search on that term. The example below shows a section of the Abstract details pane. In this example we have clicked on the author name Garibaldi, A.; . This has performed a site search using the search string au:"Garibaldi, A." which has returned all records this author has contributed to.



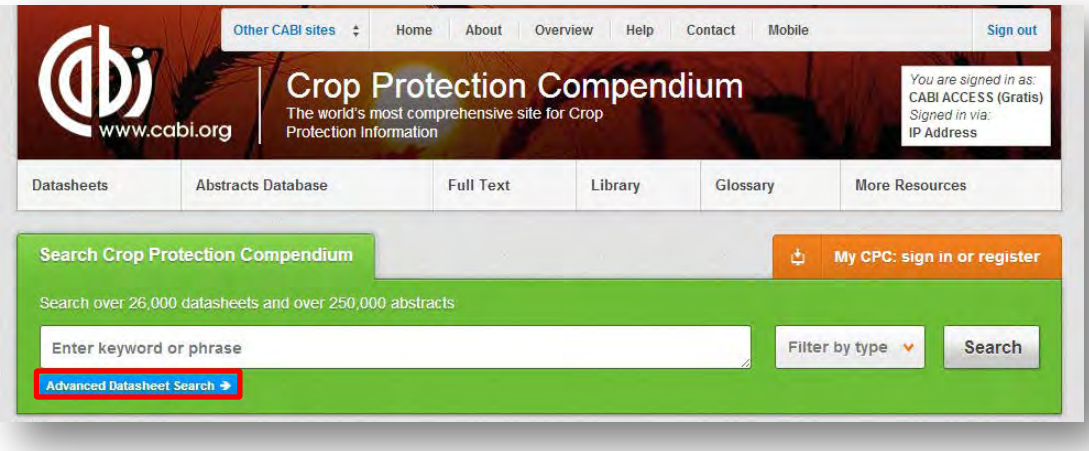
Advanced Searching

There are two separate advanced searching techniques that can be conducted on the CPC platform for:

- Datasheets
- Bibliographic records and full text documents

Datasheets

The Advanced datasheet search can provide extra search functionality that allows user to limit searches further providing more specific information on distribution and behaviour of pests, diseases and crops. To access the Advanced Datasheet search click on the search tab in the top bar menu and select the Advanced Datasheet search option as shown below. Please note only full pest and crop datasheets are included in the advanced search. To perform advanced searching for datasheets click on the Advanced Datasheet Search which can be found beneath the search bar in the search box.



The advanced datasheet search also has a code system to identify particular parts of the datasheets. This additional feature can be used for the following functions:

- Find pests and pathogens of a particular crop
- Find crops/hosts of a particular pest or pathogen
- Find pests/crops in a geographic area
- Find pests from a specific taxonomic group that attack a particular crop
- Find pests that attack a particular plant part
- Find pests that attack at a particular production or growing stage

To find these types of queries the advanced datasheet search function provides a coding system and a controlled vocabulary.

Coding system and controlled vocabulary

There are two types of code that can be used when using the advanced datasheet search. Below shows the code and the function they can perform

Datasheet code	Function
"HOS + scientific/common name of crop"	Finds all the pests and pathogens of a particular crop
"PPS + scientific/common name of pest/pathogen"	Finds all the crops/hosts of a particular pest or pathogen

The controlled vocabulary is used to specify symptoms, plant parts and stage of plant production in search queries. For a list of correct terms for these different categories please visit our controlled vocabulary list.

Please note that quotation marks must be used when searching using coding system and controlled vocabulary terms

The table below shows the type of specific advanced searches that can be conducted for datasheets. Each example is specific for its function but it important to notes that these techniques can be combined together to achieve more specific searches. **Please note:** Boolean operators can be used but field searching using the field tags as outlined in the site search previously cannot be used with advanced datasheet searching.

Information required	Search techniques used	Example
Pests that attack a particular crop	Datasheet code and free text index	"HOS maize"
Crops/hosts of a particular pest or pathogen	Datasheet code and free text index	"PPS Mussidia nigrivenella"
Pests that attack a particular crop in a geographic area	Datasheet code and free text index	"HOS maize" AND Ghana
Pests from a specific that attack a particular crop from a specific taxonomic group	Datasheet code and free text index	"HOS maize" AND lepidoptera
Pests that attack a particular plant part	Datasheet code and controlled vocabulary	"HOS maize" AND "stems"
Pests that attack a particular growing stage	Datasheet code and controlled vocabulary	"HOS maize" AND "post harvest"

Bibliographic records & Full text

Field searching

The search box for CPC also allows you to conduct advanced field searching using the index field tags. Field searching is a technique by which users can search for keywords in specific indexing fields. These indexing fields are used when adding a bibliographic record to CAB Direct e.g. Abstract title, author. Each indexing field has an associated field tag which can be used in conjunction with search keywords to return a more precise set of results. Below is a list of the indexing fields and their associated tag:

Common search fields

Description	Field Tag
Abstract	ab
Author affiliation	aa
Descriptor	de
Organism Descriptor	od
Geographic Locator	gl
Broad term	up
Identifier	id
Publication source	do
Publisher	publisher
CABICODE	cc
Conference	ct
Language	la
Publication type	it
Year	yr
Record number	pa
DOI	oi
ISSN	sn
ISBN	bn

Additional search fields

Description	Field Tag
Additional Authors	ad
Author Affiliation	aa
CAS Registry Numbers	ry
Conference Dates	cd
Conference Title	ct
Corporate Author	ca
Country of Publication	cp
Descriptors	de
Digital Object Identifier	oi
Document Editors	ed
Document Title	do
Email	em
English Item Title	et
Non English Item Title	ft
Geographic Location	gl
Identifiers	id
ISBN	bn
ISSN	sn
Item Type	it
Language(s) of Summary	ls
Language(s) of Text	la
Location of Publisher	lp
Main Abstract	ab
Organism Descriptors	od
Pan Number	pa
Personal Author	au
Personal Author Variants	av
Publisher	pb
CABI Product Code	sc
Up-posted Descriptors	up
Web URL	ur
Year of Publication	yr

To conduct a field search type the associated field tag (must be lowercase) into the search box followed by a colon. Next enter your search term/s. Field searching can also be conducted using the variety of simple search techniques outlined previously such as multiple word searches and Boolean operators. Below show some examples:

Single word search: de: pesticides

Multiple word search: de: pesticides AND od:"Oryza sativa"

Searching with parentheses: (de:pesticides NOT fungicides) AND od:"Oryza sativa"

Metadata searching

If you are looking only for important papers on a particular subject, where you want a high level of relevance, you should restrict your search to one or more of the CABI indexing or Descriptor fields. Every record on the database is indexed with terms that describe all the important concepts within a paper. The index terms may be added to one of 5 different indexing fields. The indexing fields that CABI uses are:

Fields	Tags	Description	Example
Organism Descriptor	od:	The Organism Descriptor field is used for animal and plant names	od: “maize”
Geographic Location	gl:	Geographic Location field is used for country and other geographic names	gl: Germany
Descriptor	de:	The Descriptor field is used for all the “other” terms that are neither animal, plant nor geographic	de: global warming
Broad Term (Up-posted Term)	up:	The broad term is used to search for more general terms of a subject as defined in CAB Thesaurus	up: climate change
Identifier	id:	This field is used for non-preferred index terms	id: lipins

Please note: When searching the organism descriptor all animals are indexed with their scientific names. However, plants are indexed with both their scientific and their common names.

Super indexes

Super indexes allow users to search multiple indexes across related fields. They are useful tools for users if they are unsure which fields they need to specify when trying to conduct

advanced field searching. They can be searched in the same way as other fields as the super indexes have their own field tag associated to them. CPC also has three super indexes.

The first two super indexes shown in the table below are used when searching bibliographic information relating to either the article title or the article authors. The table below shows the field tag, field indexes that are searched and an example of a search.

Super index name	Super index field tag	Fields searched	Example
Title	title:	English title Foreign title	title: carbendazim
Author	author:	Personal author Author variant Additional author Document editor Corporate author	author: Shaw

The third super index called the subject index is used when searching for the indexing terms or metadata that is recorded or assigned to each record. The table below shows the field tag, field indexes that are searched and an example of a search.

Super index name	Super index field tag	Fields searched	Example
Subject	subject:	Descriptor Geographic location Organism descriptor Identifer	subject: soybeans

CABICODES

In addition to adding index terms to a record, broad concepts are also “indexed” with a classification system known as CABICODES. The CABICODES are a hierarchical list of classification codes that divide the subject coverage of the CAB ABSTRACTS database into 23 major sections. Each section then includes a series of codes that divides that subject into more specific subjects. The codes themselves are typically used to code for subjects that would be difficult to describe with keywords alone. These CABICODES shown below display a selection of the CABICODES for social sciences and their associated topic area. For a full list of CABICODES and their topic areas visit the **CABICODE list.**

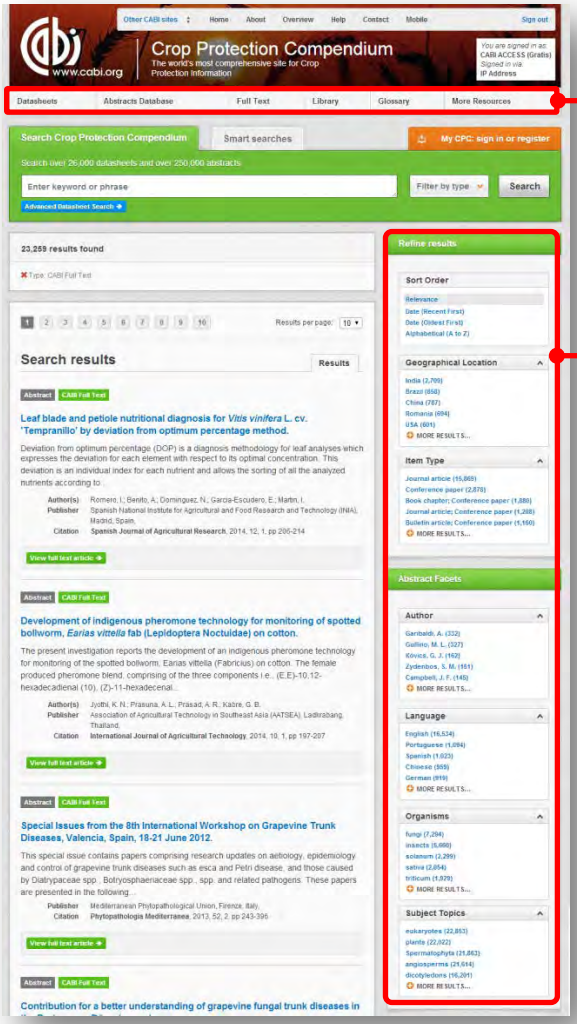
FF000 Plant Science (General)
FF003 Horticultural Crops (New 2000)
FF005 Field Crops (New 2000)
FF007 Forage & Fodder Crops (New 2000)
FF020 Plant Breeding and Genetics
FF030 Plant Morphology and Structure
FF040 Plant Composition
FF060 Plant Physiology and Biochemistry
FF061 Plant Nutrition
FF062 Plant Water Relations
FF100 Plant Production
FF150 Plant Cropping Systems
FF160 Plant Propagation
FF170 in vitro Culture of Plant Material
FF400 Mycorrhizas & Fungi of Economic Importance; Symbiotic Nitrogen Fixation (Discont. 2000)
FF500 Weeds and Noxious Plants
FF600 Pests, Pathogens & Biogenic Diseases of Plants (Discont. 2000)
FF610 Viral, Bacterial & Fungal Diseases of Plants (New 2000)
FF620 Plant Pests (New 2000)
FF700 Plant Disorders & Injuries (Not caused directly by Organisms)
FF800 Plant Toxicology
FF900 Environmental Tolerance of Plants

The CABICODES can be searched just like any other field tag. Two field tags are assigned to the CABICODE field and these are described below. Please note, as other field tags these must be entered in lowercase

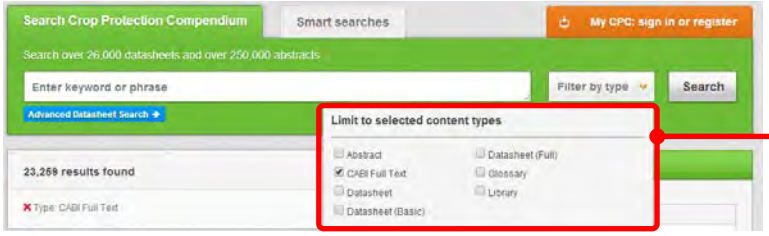
Field tag	Definition	Example
cc:	Allows users to search the index of the alphanumerical assigned code	**cc:FF003**
cabicode:	Allows users to search both the alphanumerical assigned code index as above and the CABI code title index	**cabicode: FF003 or cabicode:horticultural**

Content pages

Content pages enable you to focus searching on specific content types across the CPC platform. The content page can be selected from the horizontal menu bar shown in the screen shot below. These pages are structured in a similar format as the homepage but only include content items that refer to the selected choice. For example, the screen shot below shows the content page for Abstracts. Therefore the latest content section will only show recent articles that refer to this content type. The green underline in the horizontal content page menu indicates which topic page you are currently viewing.



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



MyCPC

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

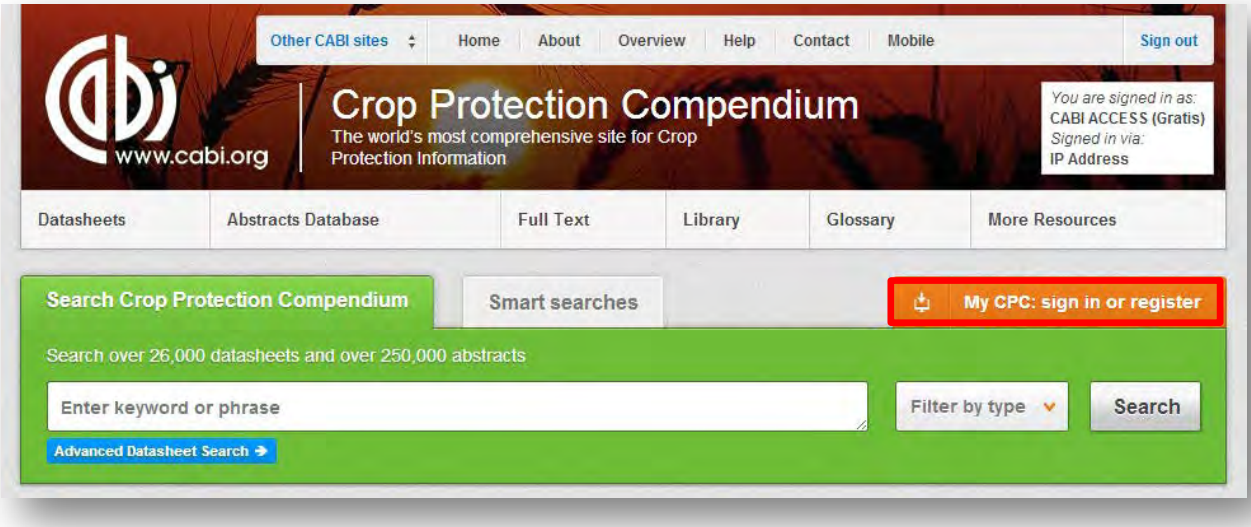
- Combine and save searches
- Save records
- Export citations
- Create Alerts

To gain the full functionality of MyCPC 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 MyCPC at the beginning of all your search sessions on CPC.

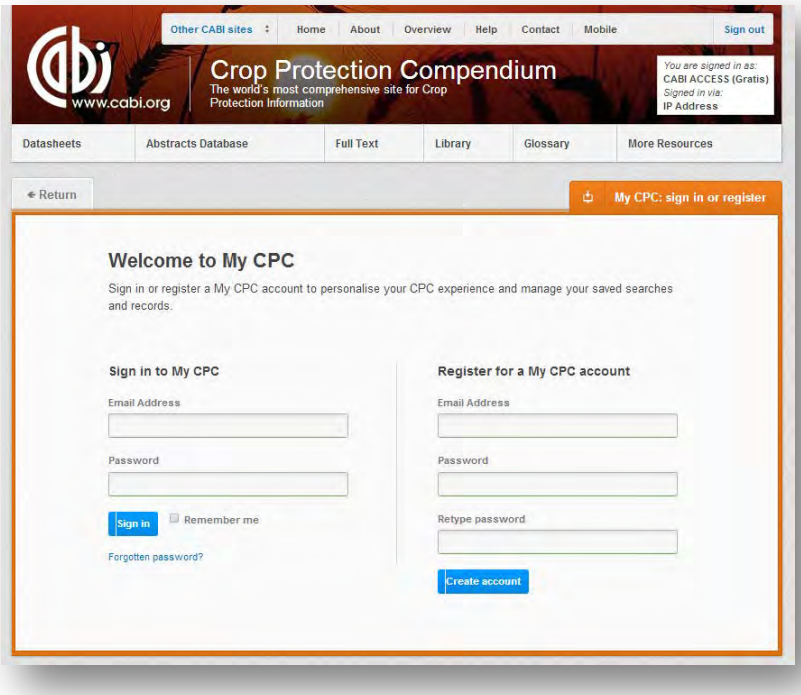
Creating a MyCPC account

Before you can access the features of MyCPC you first need to create an account. Click on the 

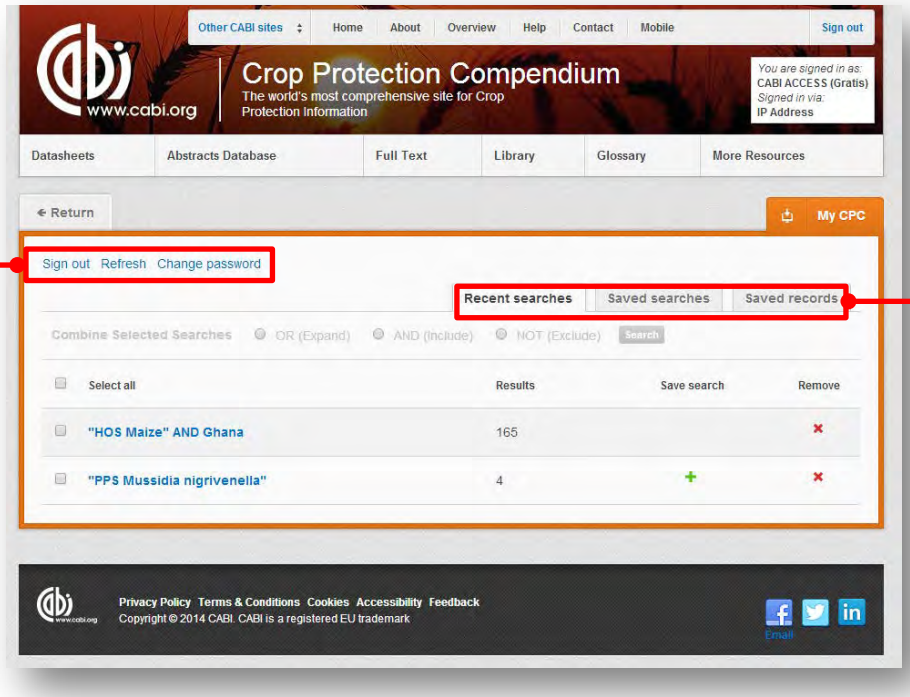
button in the top-right hand corner of the search box as shown below:



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.



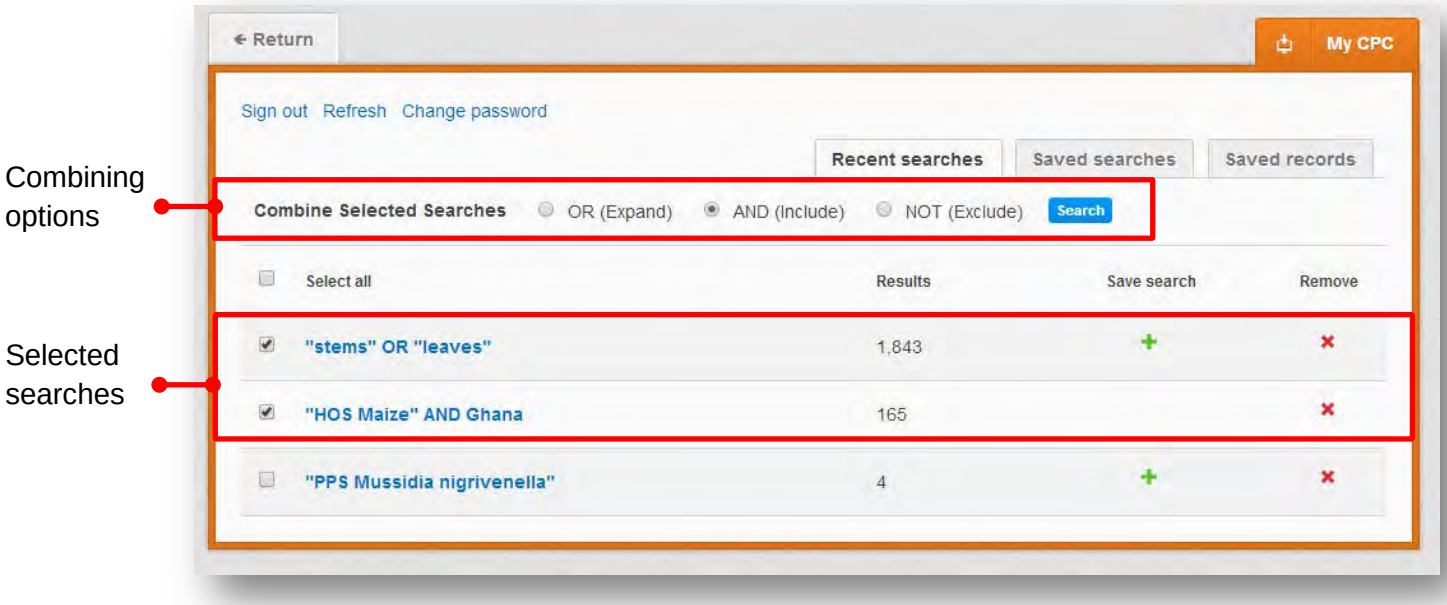
Below shows the MyCPC page. At the top of the display box are the different tabs to display the different types of search activities. By default the display automatically shows the recent searches that you have conducted. To the left hand side of the page there is also an option to sign-out or change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



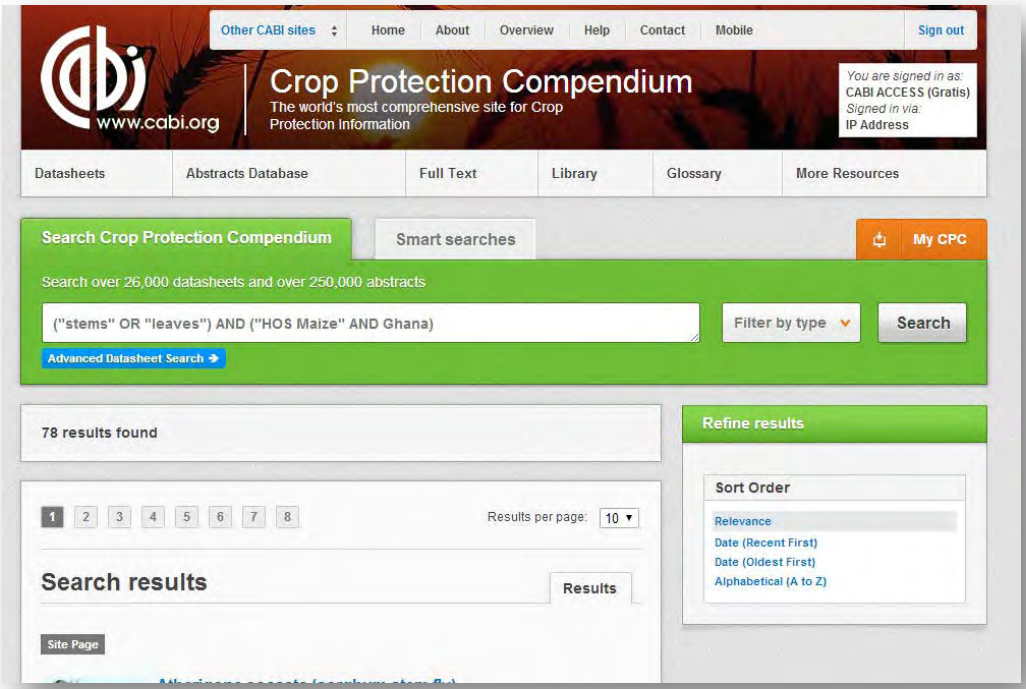
Combining searches

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 searches have recently been conducted. These two have been selected using the checkbox ☑ and the AND Boolean operator has been chosen from the combined search options.

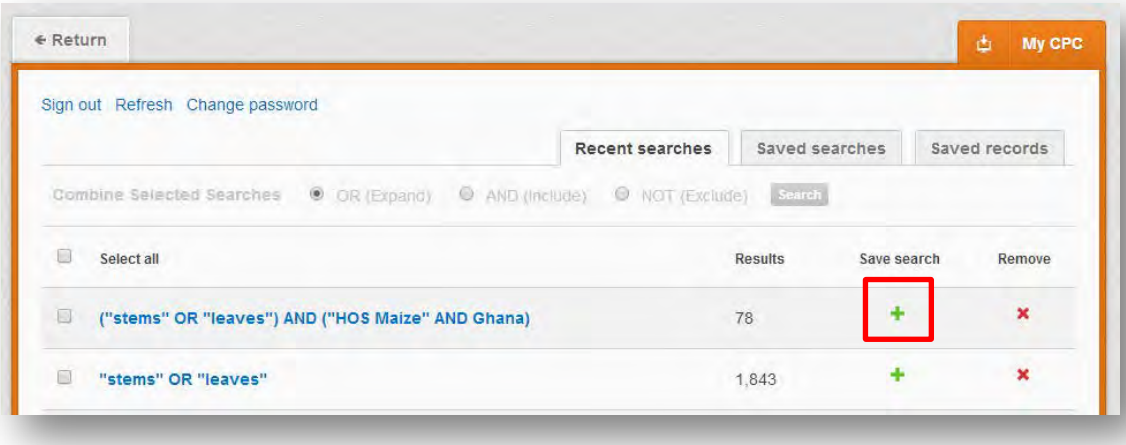


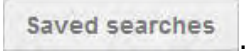
Once your options have been selected perform the search by clicking the Search button. This will conduct the search and direct you to the results page as shown below. You can see that the search string of the two combined searches is displayed in the search box. By combining this search with the AND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



Saving searches and creating alerts

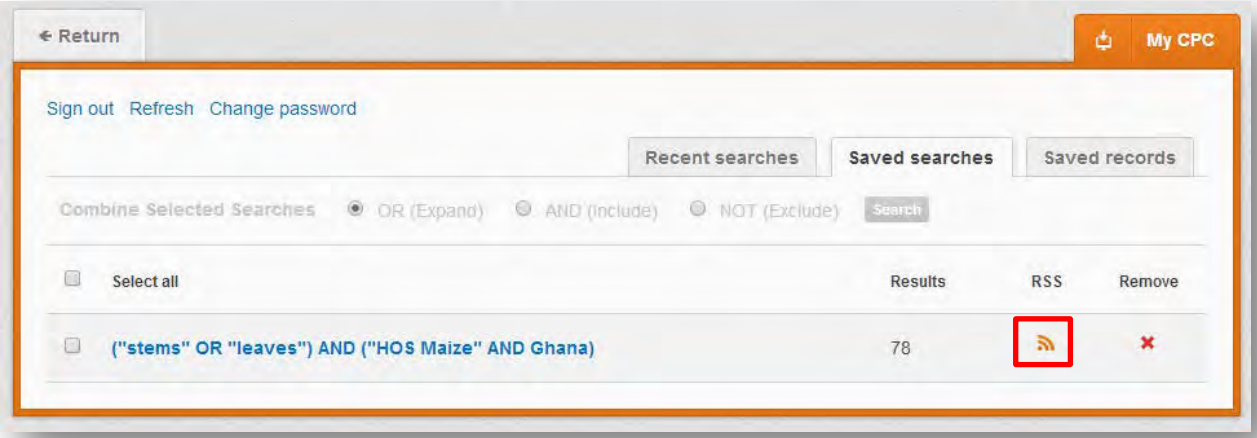
For searches you would like to run on a regular basis, users can save searches for future reference by using MyCPC. To save a search visit the recent search tab from the MyCPC page and click on the save search button 



To view your saved searches click on the saved searches tab 

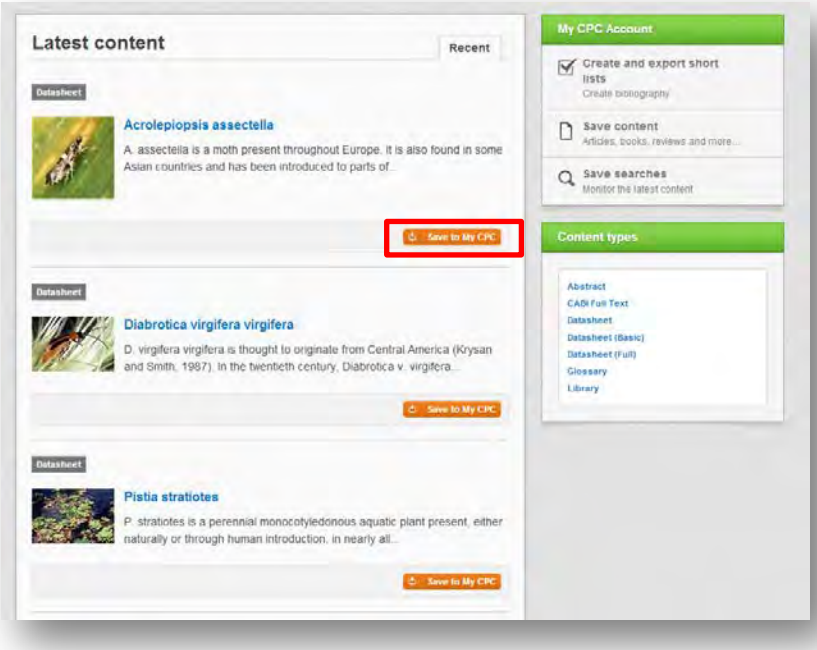
. The saved searches tab allows the user to conduct a saved search by clicking on the blue

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 CPC 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



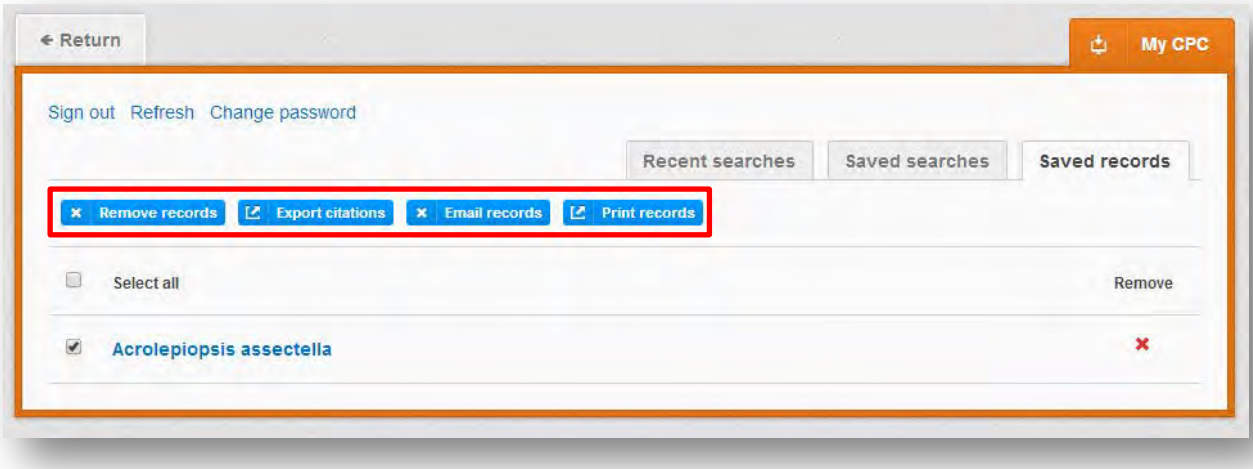
Saving and exporting records

The MyCPC tool also allows you to save individual records for future reference and export these to reference management software to create your own bibliographies or reference lists. To save a record to the saved records repository you must first be signed into the MyCPC 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 CPC button associated. Click this button to save the record.



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 ✖ button. To delete multiple records check the boxes ☑ 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 ☑ and click the Export citations button as shown below.



Appendix A: Search techniques

Search technique	Example	Description	Function	Reason to use
Single word search		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		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		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		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		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

Appendix B: Datasheet type

Datasheet type	Description	Topic coverage
Pest:	Datasheet providing information on over 2,400 species classed as pests of agricultural and horticultural crops. Pests listed are ones that have major global or regional economic or phytosanitary importance.	• Identity, taxonomy, morphology • Distribution (data & map) • Biology and Ecology • History of spread and risk of introduction • Hosts, symptoms and natural enemies • Impact • Management
Crop:	Datasheets for over 760 crop species.	• Identity • Distribution (data & map) • Crop Production, agronomy, breeding, uses, trade
Natural enemy:	Over 260 natural enemies of the pests are covered in full datasheets on the CPC and providing information links to the pest and host plant.	• Identity, taxonomy and morphology • Distribution (data & map) • Biology • List of hosts • Country statistics from World Bank • Use in biological control and pesticide susceptibility
Country:	Datasheets covering over 480 countries and geographic regions.	• List of Pests • Crop Production data from FAOSTAT • Pesticide trade data from FAOSTAT