CAB Direct
Improving database searching

Tom Corser

t.corser@cabi.org

January 2015

KNOWLEDGE FOR LIFE

www.cabi.org

what is CABI?

CABI is a not-for-profit science-based development and information organization
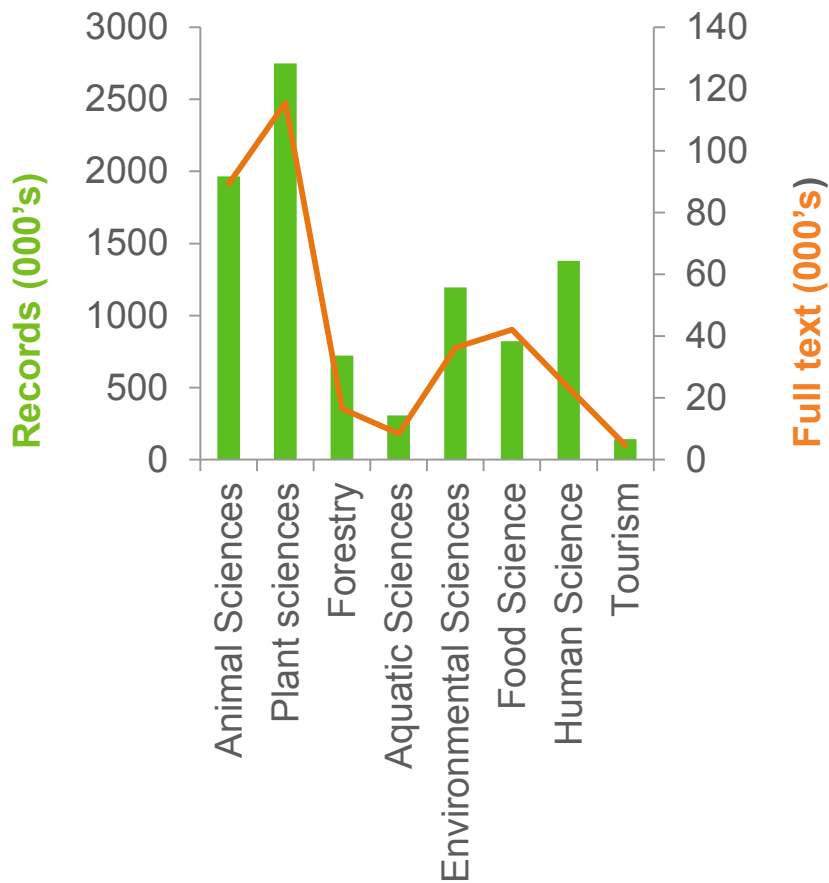
www.cabi.org

CABI's mission:
Improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment
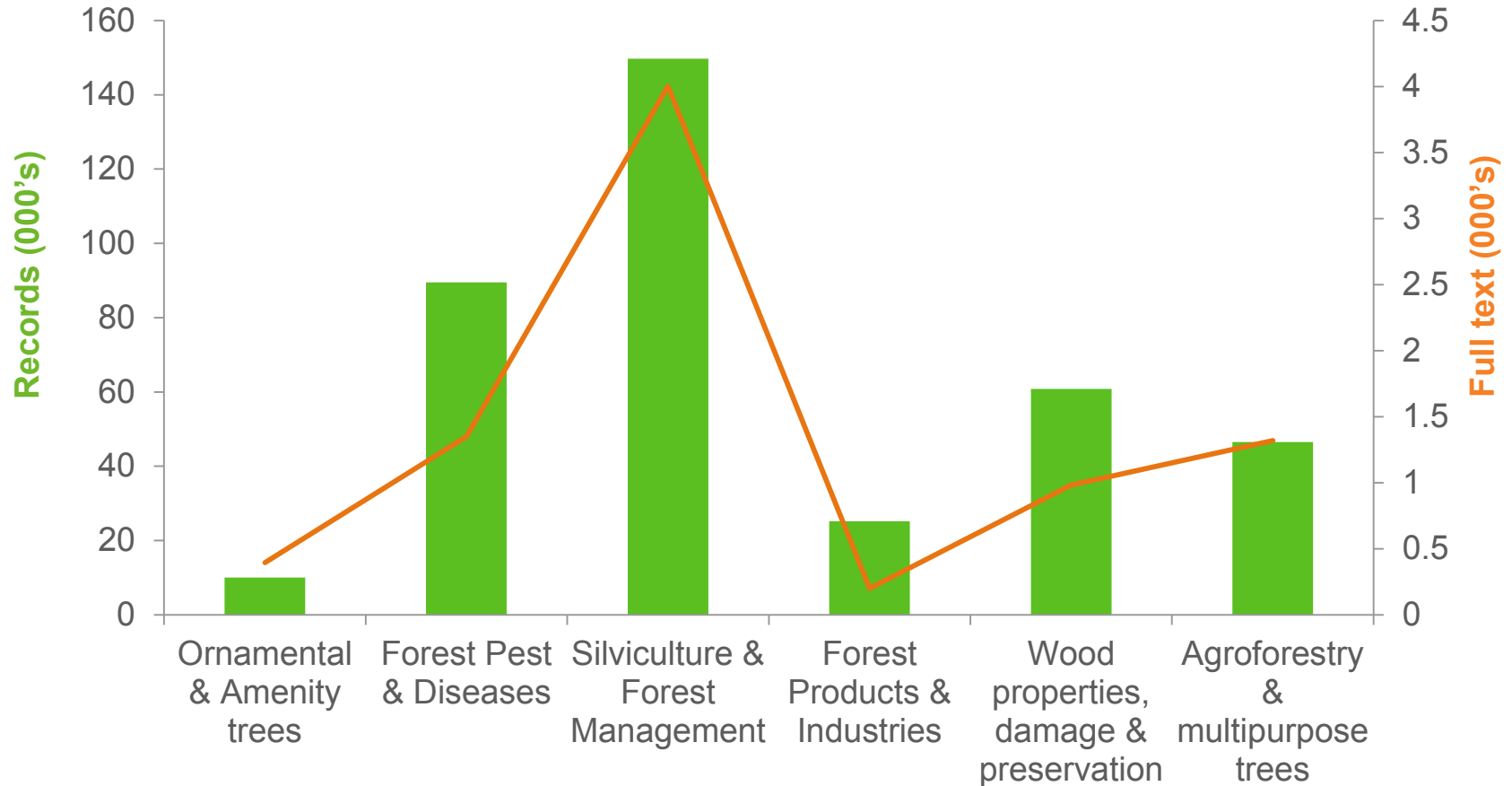
KNOWLEDGE FOR LIFE

CAB Abstracts
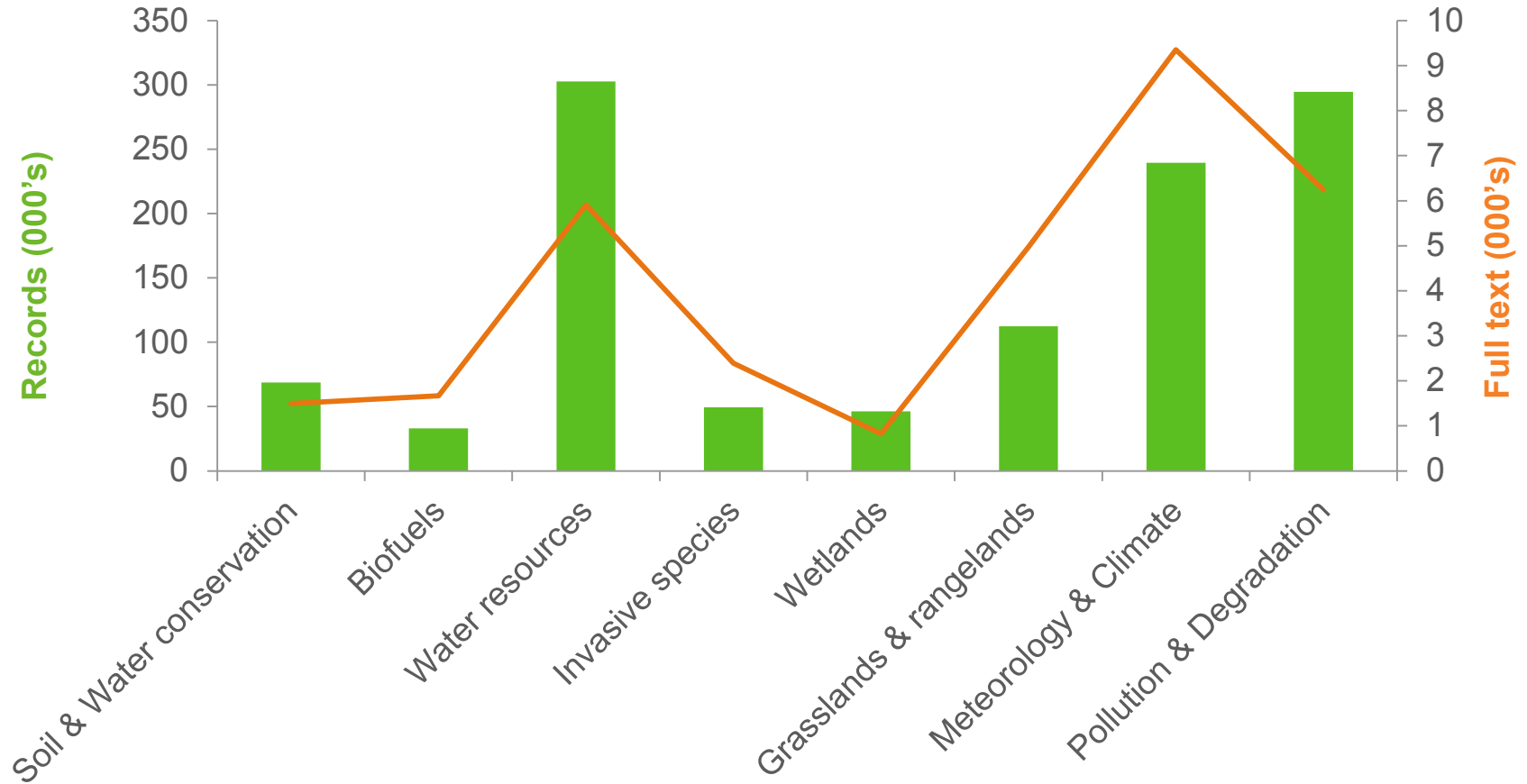**Subject coverage and content**

- Dedicated to applied life science
  - over 7.8 million records
  - includes key grey literature
  - regular weekly updates

- Content selections by subject experts
  - open journals list
  - increased discoverability

- Full text selection
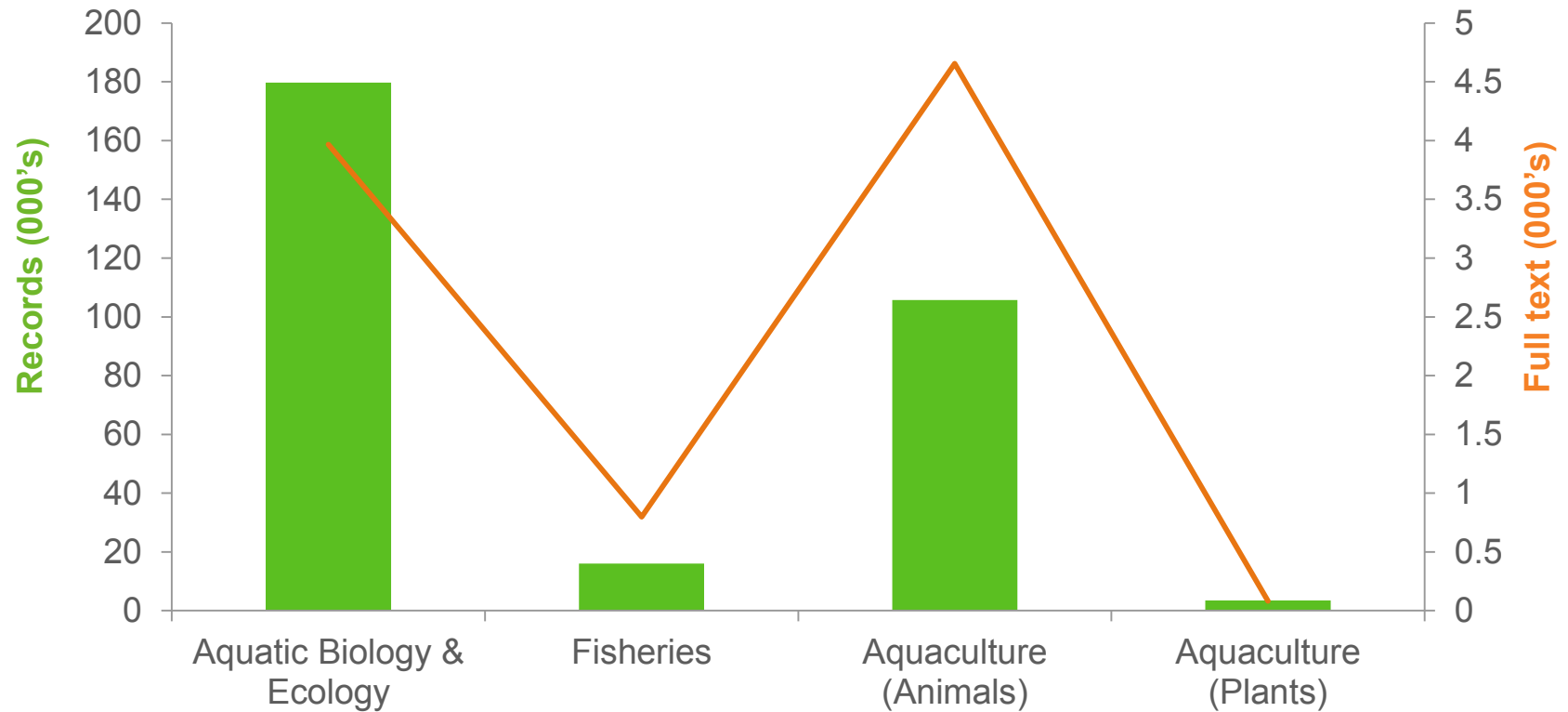 - Over 266,000 full text records
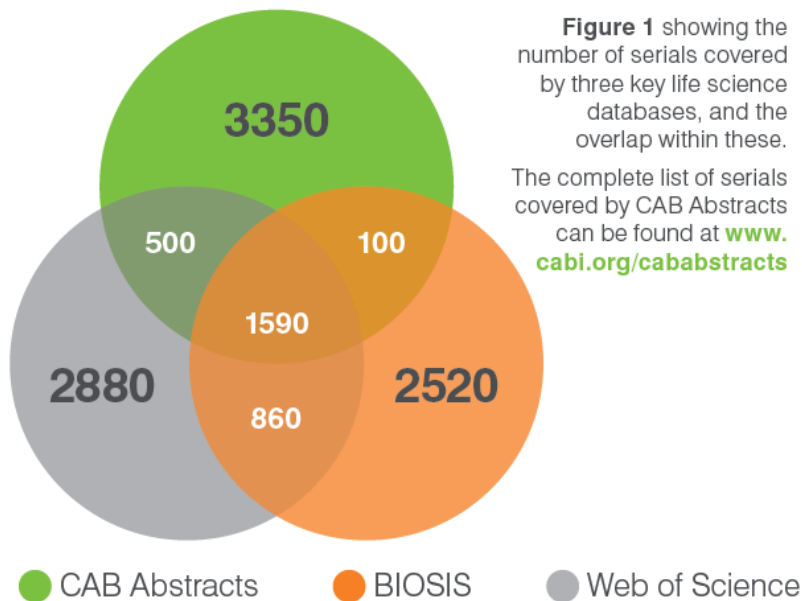
Subject Coverage (Forestry)

www.cabi.org

Subject Coverage (Environmental Sciences)

KNOWLEDGE FOR LIFE

www.cabi.org

Subject Coverage (Aquatic Sciences)

Content updates

Figure 1 showing the number of serials covered by three key life science databases, and the overlap within these.

The complete list of serials covered by CAB Abstracts can be found at www.cabi.org/cababstracts
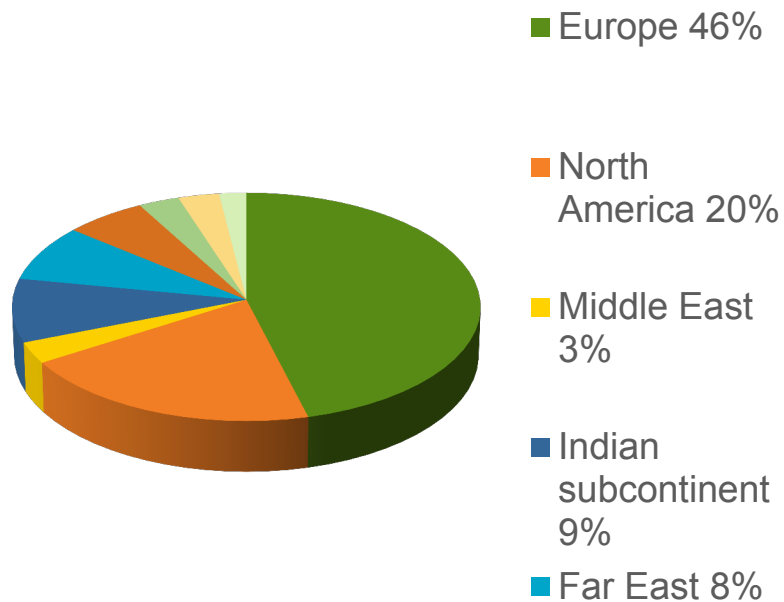
Database Content types

- Journals: 83%
- Conferences: 9%
- Grey literature (incl. reports): 4%
- Books and book chapters: 2%
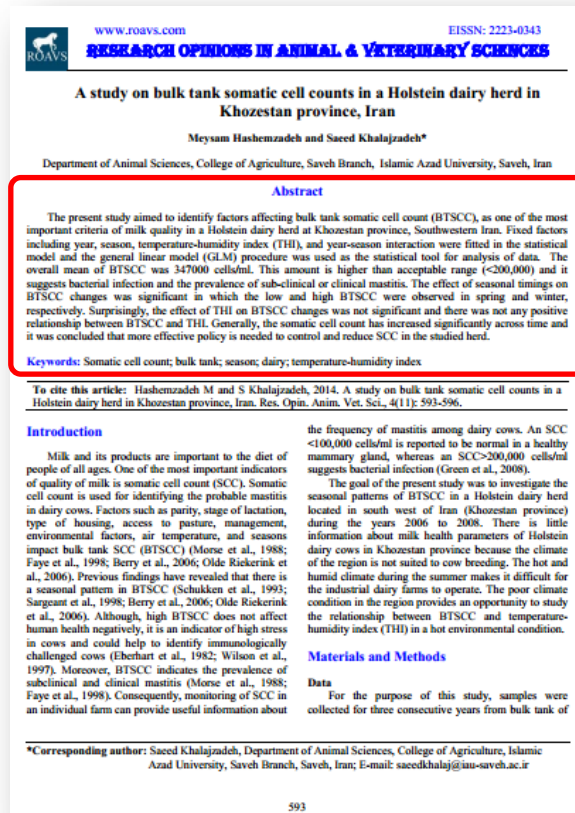- Other (theses/bulletins/editorials) 2%

www.cabi.org

CAB Abstracts
Geographical coverage

- Europe 46%
- North America 20%
- Middle East 3%
- Indian subcontinent 9%
- Far East 8%

- 8,700 international serials
  - from over 119 countries
  - covering 50 languages
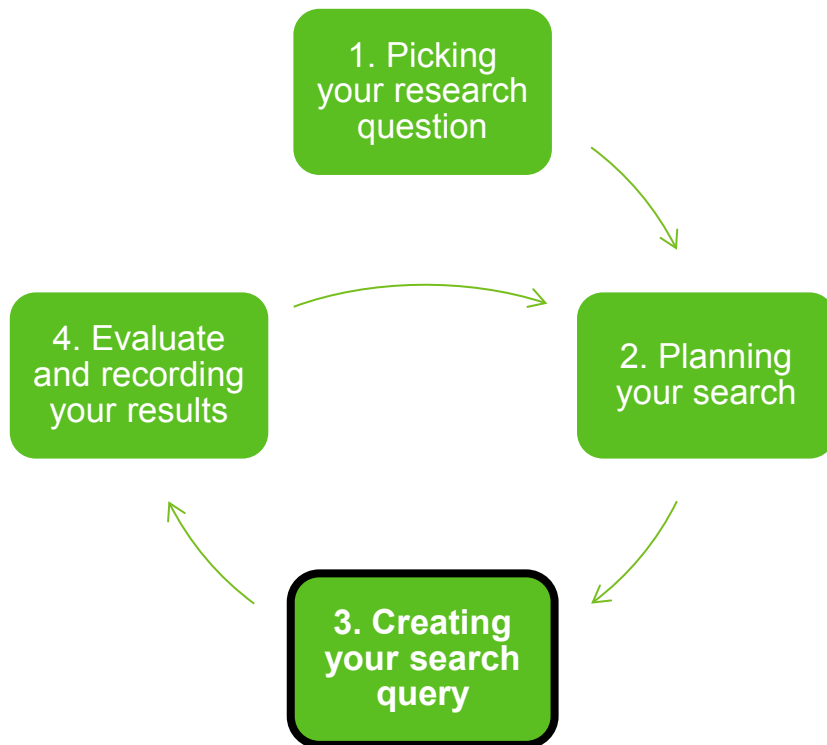 - Translation for foreign abstracts

What is a bibliographic database?

- Bibliographic records

- Metadata indexes to aid retrieval

The value of A&I

- Time saving tool

- Reliable peer-reviewed sources

- Links to full-text for extensive reference

www.cabi.org

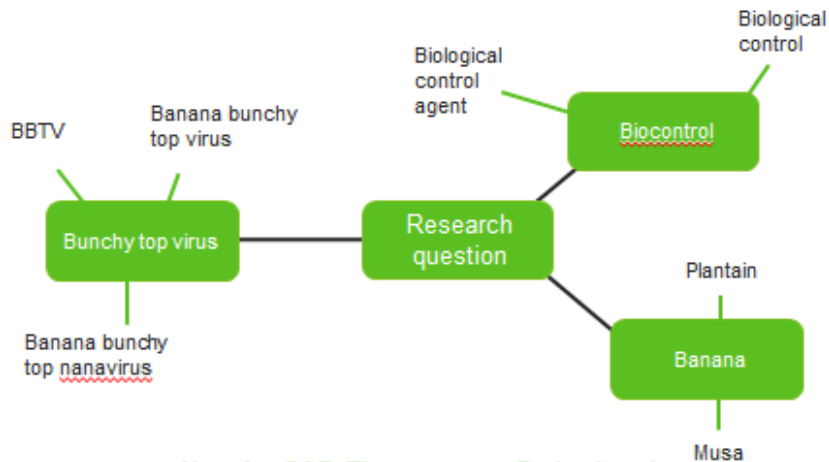# Literature review process
Deciding on an approach

1. Identify relevant sources and document types

2. Choose your search strategy
   - Systematic
   - Retrospective
   - Citation based
   - Targeted

3. **Plan/create search statements**

4. Evaluate record and searches conducted

www.cabi.org

Plan/create search statements
Two useful methods

1. Mind maps
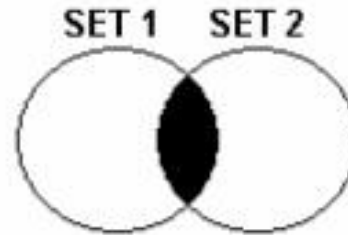   - Use CAB Thesaurus to map related words

2. Citation pearl growing
   - Use keywords from highly relevant paper

www.cabi.org

Database searching
Multi-term searching operators

AND

e.g. Soil AND climate change

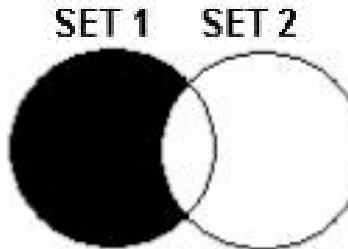Retrieves only records that contain **all** the terms chosen

OR

e.g. Climate change OR global warming

Retrieves only records that contain **any** of the terms chosen

NOT

e.g. Ash NOT fire

Retrieves only records that include keyword terms and **exclude** certain terms

www.cabi.org

Database searching
Useful search symbols

Symbol	Function	Example
" "	Phrase search	"Climate change"
( )	Orders the search	Climate AND (floods OR rainfall)
?	Individual character replacement	Anly?e search analyze and analyse
*	Automatic truncation	Hous* searches house, houses, housing etc.

CAB Direct
www.cabdirect.org

CAB Direct
Searching operators

Soil pH _____ climate change _____ global warming

↓

"Soil pH" **AND** **(**"climate change" **OR** "global warming"**)**

Combining searches
Simplifying Boolean searching

Build your searches in a step process

- Perform related words/synonym searches

- Combine concepts with AND

- Reject concepts with NOT

www.cabi.org

CABICODES

- Subject codes that return all relevant records on specific topic
- Search either alphanumerical code or subject title

Heading title	CABICODE
Forestry, Forest Products and Agroforestry	KK000
Forests and Forest Trees (Biology & Ecology)	KK100
Silviculture and Forest Management	KK110
Forest Mensuration and Management	KK120
Forest Fires	KK130
Ornamental and Amenity Trees	KK160

CABI metadata fields

- Indexed using CAB Thesaurus (controlled vocabulary)
- Search all using the subject term field

Metadata field	Field tag
Organism descriptor	OD
Geographic location	GL
Descriptors	DU
Broader terms	BT
Identifiers	ID

Subject term

BROADER TERMS

NARROWER TERMS

Africa

Anglophone Africa

Africa South of Sahara

Francophone Africa

Sahel

Central Africa

East Africa

West Africa

Southern Africa

Sudan

Rwanda

Kenya

Tanzania

Ethiopia

www.cabi.org

Optimising searching
In summary

High recall

Large result sets

Concise result sets

High precision

Basic search

- Free text index search
- General concepts
- Multiterm synonyms

- Broad term searching (exploding)

Advanced search

- Narrow concepts
- Field searching
- Metadata/controlled vocab
- Limiters

www.cabi.org

thank you

Assalamualikum शुक्रिया xie-xie
merci zikomo efharistó
ありがとう thank you gracias
kiitos tak zikomo
urakoze ke itumetse
danke terima kasih dhanyawaad

Tom Corser, Wallingford UK
t.corser@cabi.org
www.cabi.org/training

www.cabi.org