CAB Abstracts® Quick Reference Card

Produced by CAB International (CABI), CAB Abstracts® provides Web-based access to the significant international research and development literature in the fields of agriculture and applied life sciences such as human health, human nutrition, animal science, crop management, and more. Updated monthly, CAB Abstracts includes over 7.4 million bibliographic records dating from 1910 to the present, with more than 200,000 new records added each year. Selective coverage includes over 9,000 journals, conference proceedings, books, theses, and gray literature (technical reports and bulletins) from over 140 countries and spanning 50 languages.

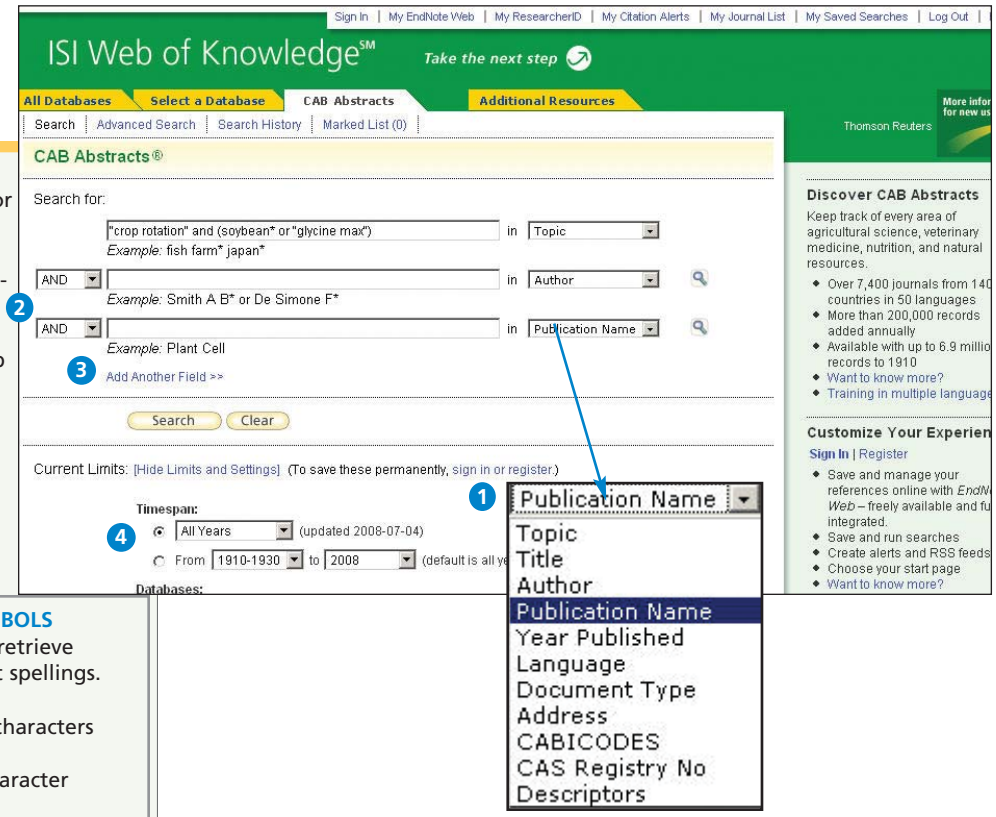
1 Search

Search by Topic, Author, Publication Name, Year Published, Address, CABICODES, CAS Registry Number, or Descriptors. Use the drop down menu for each search box to choose the area of your search. You can limit your search by original language of publication or document type.

2 Use the drop down menu to change the relationship between each search field to AND, OR, or NOT.

3 Add additional fields for a more complex search.

4 Change the time frame and data limits of your search.



SEARCH OPERATORS

Search using AND, OR, NOT, and SAME (same sentence) to create logical search statements. Nest search operators inside parentheses. Search exact or truncated phrases inside quotations marks.

TRUNCATION SYMBOLS

Use truncation to retrieve plurals and variant spellings.

* = zero to many characters
? = one character
$ = zero or one character

THOMSON REUTERS

Full Record

1 Title

Titles are indexed as they appear in the source document. Foreign language titles are translated into US English and the original title is retained below the translation.

2 Authors

All author names are indexed and searchable.

3 Source Information

Title, volume, issue, pagination, and publication date display here. The ISSN/ISBN appears below the Author Address information.

4 Abstract

The English language author abstract of the source document appears here. Foreign Language abstracts are not retained.

5 Document Type

The Document Type tells you whether this record corresponds to a journal article, a conference paper, a report, a book, a patent, or a standard.

6 Addresses

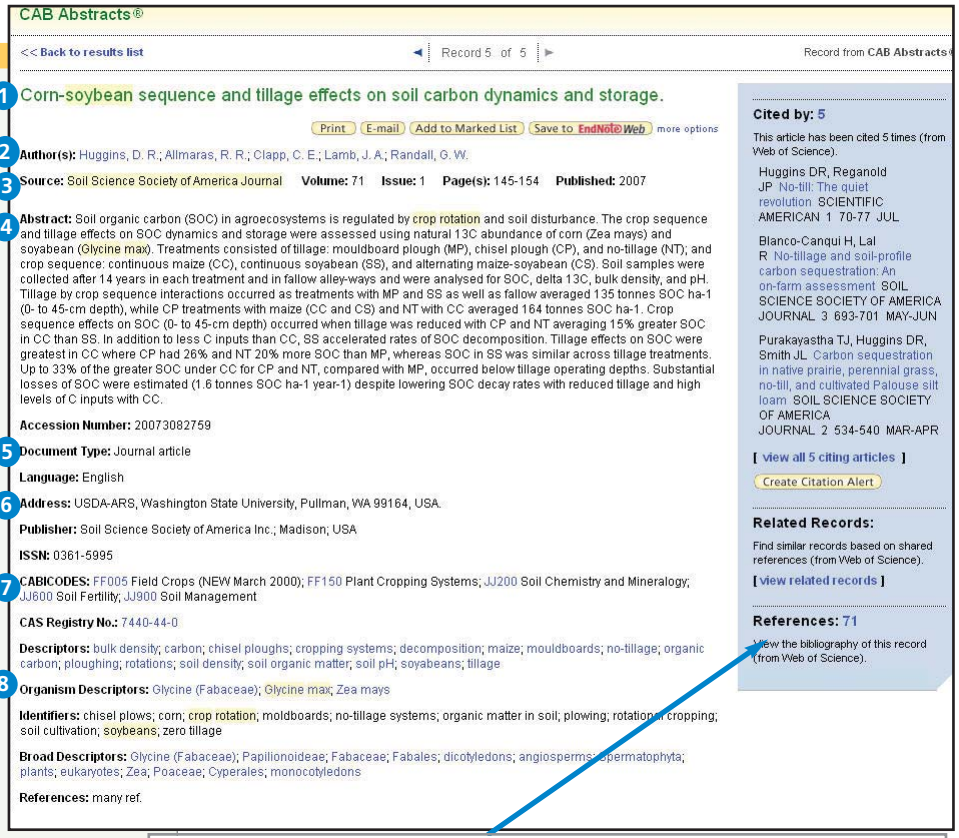
One address, generally that of the first author, is indexed in the Address field.

7 CABICODES

Records are assigned one or more alphanumeric codes by CABI indexers. CABICODES are part of a hierarchical classification that divides the subject coverage in the database into 23 major sections.

8 Descriptors/Identifiers

Controlled terms assigned by CABI indexers to describe concepts discussed in the article, including specific fields for organism names and geographic locations



CAB Abstracts®

<< Back to results list ◄ Record 5 of 5 ► Record from CAB Abstracts®

1 Corn-soybean sequence and tillage effects on soil carbon dynamics and storage.

Print | E-mail | Add to Marked List | Save to EndNote Web | more options

2 **Author(s):** Huggins, D. R.; Allmaras, R. R.; Clapp, C. E.; Lamb, J. A.; Randall, G. W.

3 **Source:** Soil Science Society of America Journal **Volume:** 71 **Issue:** 1 **Page(s):** 145-154 **Published:** 2007

4 **Abstract:** Soil organic carbon (SOC) in agroecosystems is regulated by crop rotation and soil disturbance. The crop sequence and tillage effects on SOC dynamics and storage were assessed using natural 13C abundance of corn (Zea mays) and soyabean (Glycine max). Treatments consisted of tillage: mouldboard plough (MP), chisel plough (CP), and no-tillage (NT); and crop sequence: continuous maize (CC), continuous soyabean (SS), and alternating maize-soyabean (CS). Soil samples were collected after 14 years in each treatment and in fallow alley-ways and were analysed for SOC, delta 13C, bulk density, and pH. Tillage by crop sequence interactions occurred as treatments with MP and SS as well as fallow averaged 135 tonnes SOC ha-1 (0- to 45-cm depth), while CP treatments with maize (CC and CS) and NT with CC averaged 164 tonnes SOC ha-1. Crop sequence effects on SOC (0- to 45-cm depth) occurred when tillage was reduced with CP and NT averaging 15% greater SOC in CC than SS. In addition to less C inputs than CC, SS accelerated rates of SOC decomposition. Tillage effects on SOC were greatest in CC where CP had 26% and NT 20% more SOC than MP, whereas SOC in SS was similar across tillage treatments. Up to 33% of the greater SOC under CC for CP and NT, compared with MP, occurred below tillage operating depths. Substantial losses of SOC were estimated (1.6 tonnes SOC ha-1 year-1) despite lowering SOC decay rates with reduced tillage and high levels of C inputs with CC.

Accession Number: 20073082759

5 **Document Type:** Journal article

Language: English

6 **Address:** USDA-ARS, Washington State University, Pullman, WA 99164, USA.

Publisher: Soil Science Society of America Inc.; Madison; USA

ISSN: 0361-5995

7 **CABICODES:** FF005 Field Crops (NEW March 2000); FF150 Plant Cropping Systems; JJ200 Soil Chemistry and Mineralogy; JJ600 Soil Fertility; JJ900 Soil Management

CAS Registry No.: 7440-44-0

Descriptors: bulk density; carbon; chisel ploughs; cropping systems; decomposition; maize; mouldboards; no-tillage; organic carbon; ploughing; rotations; soil density; soil organic matter; soil pH; soyabeans; tillage

8 **Organism Descriptors:** Glycine (Fabaceae); Glycine max; Zea mays

Identifiers: chisel plows; corn; crop rotation; moldboards; no-tillage systems; organic matter in soil; plowing; rotational cropping; soil cultivation; soybeans; zero tillage

Broad Descriptors: Glycine (Fabaceae); Papilionoideae; Fabaceae; Fabales; dicotyledons; angiosperms; Spermatophyta; plants; eukaryotes; Zea; Poaceae; Cyperales; monocotyledons

References: many ref.

Cited by: 5

This article has been cited 5 times (from Web of Science).

Huggins DR, Reganold JP No-till: The quiet revolution SCIENTIFIC AMERICAN 1 70-77 JUL

Blanco-Canqui H, Lal R No-tillage and soil-profile carbon sequestration: An on-farm assessment SOIL SCIENCE SOCIETY OF AMERICA JOURNAL 3 693-701 MAY-JUN

Purakayastha TJ, Huggins DR, Smith JL Carbon sequestration in native prairie, perennial grass, no-till, and cultivated Palouse silt loam SOIL SCIENCE SOCIETY OF AMERICA JOURNAL 2 534-540 MAR-APR

[view all 5 citing articles]

Create Citation Alert

Related Records:

Find similar records based on shared references (from Web of Science).

[view related records]

References: 71

View the bibliography of this record (from Web of Science).

If your institution has access to Web of Science, you may see additional information in the blue sidebar.

Click the **Cited By** number to move to the articles that have cited this article in Web of Science. The bibliographic information for the three latest articles to cite this article will automatically display with the full record.

Click **View Related Records** to find articles that have cited the same earlier materials.

Click **Create Citation Alert** to be notified when the article is cited by any new Web of Science record. Citation Alerts will remain active for one year, but can be renewed at any time.

Using CABICODES and Descriptors

1 Thesaurus

Search the CABI Thesaurus to find Descriptors to add to your search. Descriptors are controlled terms assigned to CAB Abstracts documents by CABI indexers. Four types of descriptor terms can be searched in the thesaurus:

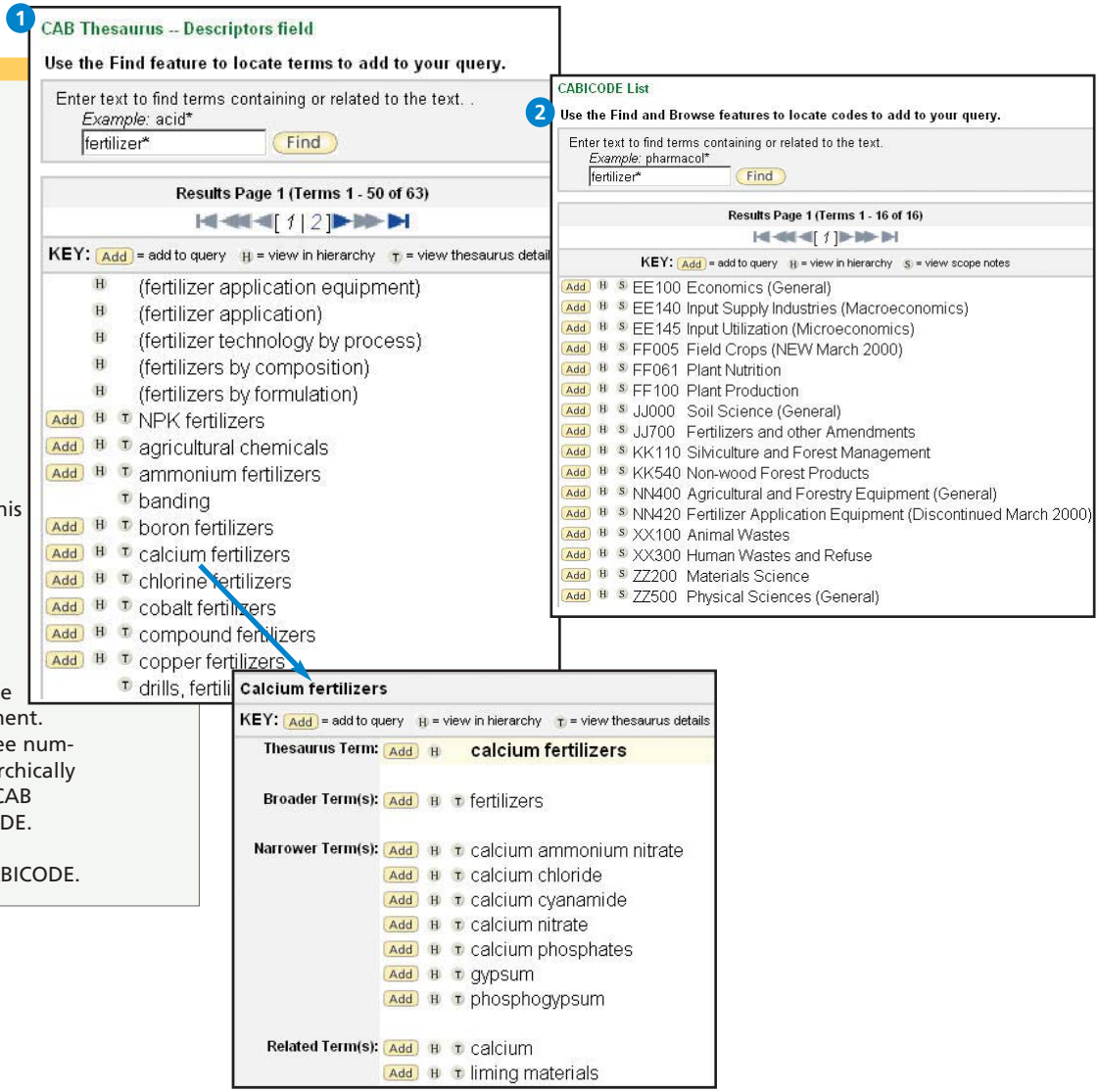
- Descriptors
- Geographic Location terms
- Organism Descriptors
- Broad Descriptors

Click "Add" to add a term to your search
Click "H" to see the term within the context of its hierarchy.
Click "T" to see the thesaurus entry for this term. This may display broader and/or narrower terms, as well as related terms.

2 CABICODES

These are classification codes that indicate the broad subject area of a source document. Each code consists of two letters and three numbers. The 340+ codes are arranged hierarchically within 23 broad groups. Each record in CAB Abstracts is assigned at least one CABICODE.

Click "S" to view the scope note for a CABICODE.



Refine and Analyze

1 Refine your Results

Use Refine to mine a set of up to 100,000 results to find the top 100 Subject Areas, Source Titles, Authors, Descriptors, CABICODES, Document Types, Publication Years, and Languages.

2 Sort Results

Sort up to 100,000 records by

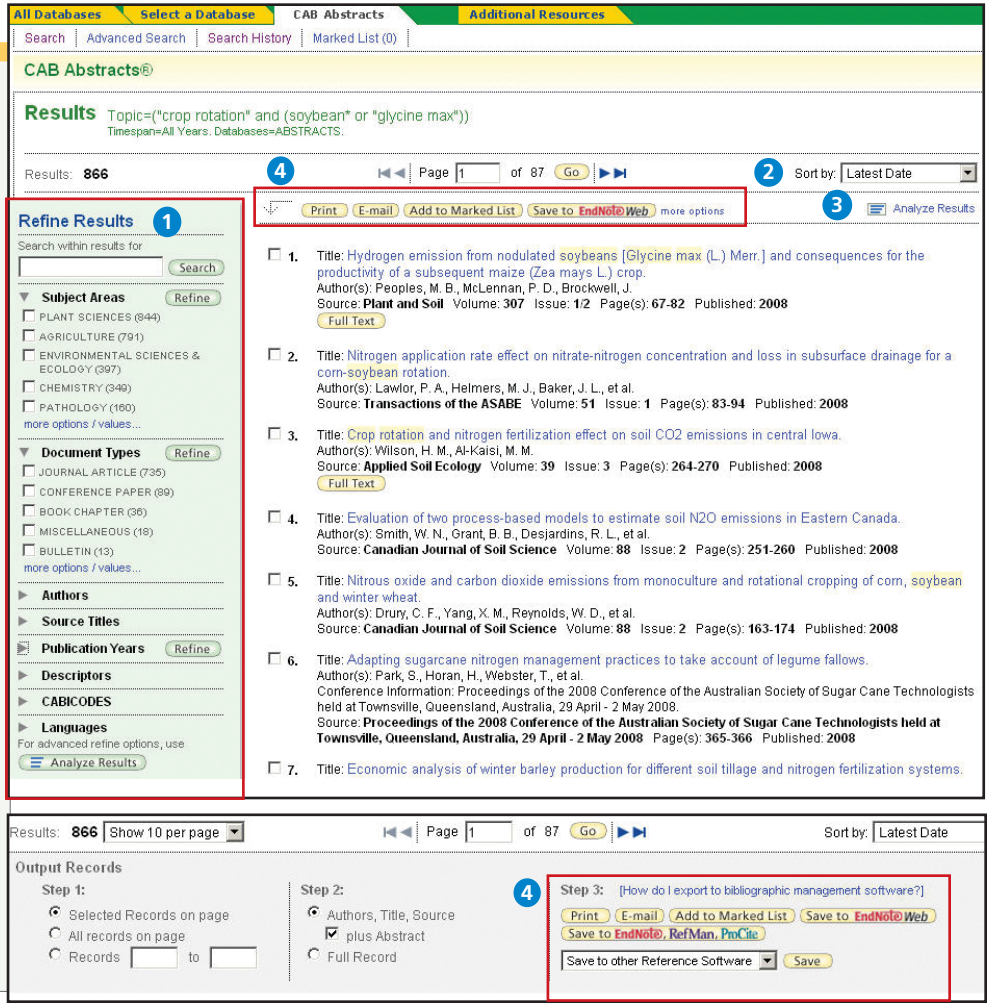
- Latest Date (default)
- Relevance
- Publication Year
- Source Title
- Conference Title
- First Author

3 Analyze Results

Like Refine, with Analyze you can mine a set of up to 100,000 results. With Analyze you can output the results to Microsoft® Excel to create your own graphs.

4 Output Records or Save to Endnote Web

Output records, add to your Marked List, or save to EndNote Web. Quickly print, e-mail or save to a temporary marked list (500 records maximum), or save permanently to EndNote Web (10,000 max). Click "more options" to save a range of records, adjust your saved fields, or export directly to ResearchSoft reference software (EndNote, Reference Manager, and ProCite) you have installed on your desktop.



Personalize

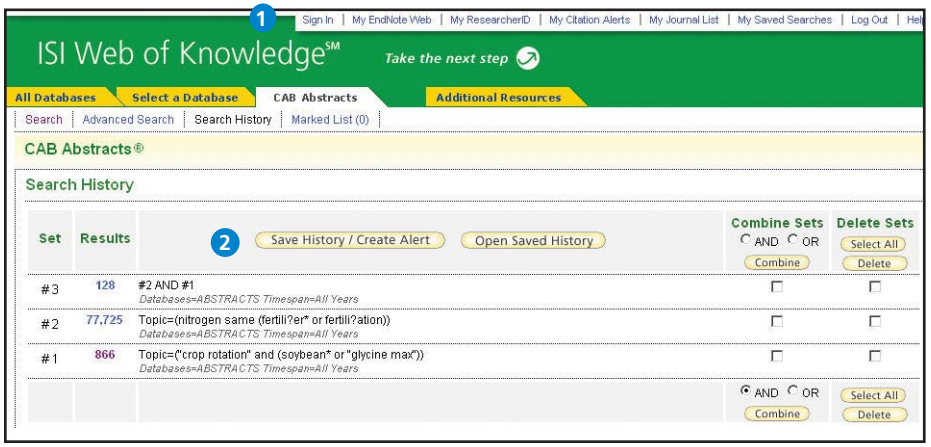
1 Create Personal Profile

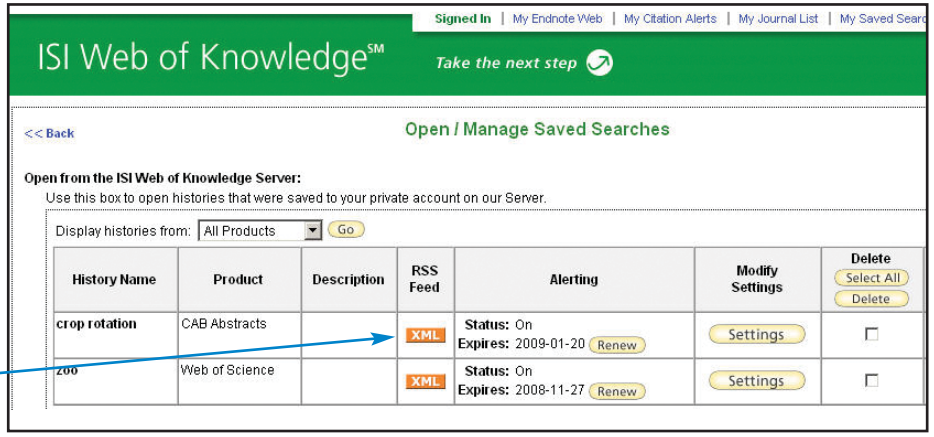
Any *CAB Abstracts* user can create a personal *ISI Web of Knowledge* profile to take advantage of powerful personalization options. You can create a private user profile from the *ISI Web of Knowledge* home page (Click "Home" in the top tool bar to find the *ISI Web of Knowledge* homepage.) The user profile allows you to create:

* Unlimited saved searches and search alerts
* An **Endnote Web** library of up to 10,000 references

2 Save Searches and Create Search Alerts

Save any search of up to 20 sets as a Search History or an Alert. Alerts will be based on the last set in your history. You can choose the frequency and form of the alert. Alerts will remain active for 24 weeks but can be renewed at anytime. If an alert expires, it will remain as a saved search strategy in your personal profile until you delete it. Searches can also be saved as RSS feeds; simply click the XML icon after clicking Save History.



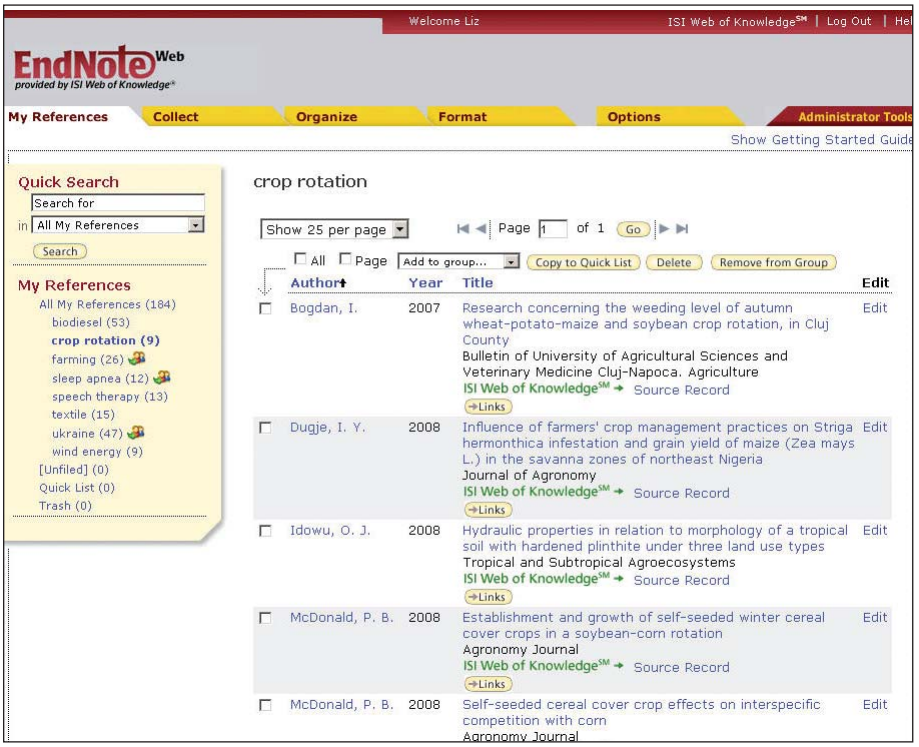


* Click "Renew" to set a new expiration date for any alert.
* Click "Settings" to turn alerts on or off.
* Click "Open" to run the saved search
* Click XML to set an RSS Feed

Manage

EndNote Web

Save up to 10,000 records in your EndNote Web library. EndNote Web also allows you to add and format references in a document and search other online databases and library catalogs. References imported from ISI Web of Knowledge resources will remain marked with an EndNote Web icon and you can link back to the full record and view up-to-date citation information. EndNote Web also allows you to add and format citations to documents you are writing and perform searches of other online databases. Once you have created your EndNote Web library you can access your library at any time, either from your Web of Knowledge profile or by going to www.myendnoteweb.com and using your ISI Web of Knowledge user ID and password.



Getting Help

Click the **Help** button on any page to get detailed help on features as well as detailed search tips and examples.

Contact the Technical Help Desk for your region at:
scientific.thomsonreuters.com/support/techsupport

Contact the education team at:
scientific.thomsonreuters.com/support/training/contacttraining

To view a recorded training module, visit:
scientific.thomsonreuters.com/support/recorded-training

Interested in more tips and tricks?
For ongoing Web-based training, visit:
scientific.thomsonreuters.com/support/training/webtraining

AG 08 8065-01 C TR