

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 quotation marks.

TRUNCATION SYMBOLS

Use truncation to retrieve plurals and variant spellings.

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

SEARCH

NAVIGATE

REFINE

PERSONALIZE

SAVE

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.**

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 soybean (Glycine max). Treatments consisted of tillage: mouldboard plough (MP), chisel plough (CP), and no-tillage (NT), and crop sequence: continuous maize (CC), continuous soybean (SS), and alternating maize-soybean (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.

5 **Accession Number:** 20073082759

6 **Document Type:** Journal article

7 **Language:** English

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

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

ISSN: 0361-5995

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

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

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

Identifiers: chisel plows; corn; crop rotation; mouldboards; no-tillage systems; organic matter in soil; plowing; rotation; 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.

1 CAB Thesaurus -- Descriptors field

Use the Find feature to locate terms to add to your query.

Enter text to find terms containing or related to the text.
Example: acid*
fertilizer*

Results Page 1 (Terms 1 - 50 of 63)

KEY: = add to query = view in hierarchy = view thesaurus detail

- (fertilizer application equipment)
- (fertilizer application)
- (fertilizer technology by process)
- (fertilizers by composition)
- (fertilizers by formulation)
- NPK fertilizers
- agricultural chemicals
- ammonium fertilizers
 - banding
- boron fertilizers
- calcium fertilizers
- chlorine fertilizers
- cobalt fertilizers
- compound fertilizers
- copper fertilizers
 - drills, fertill

2 CABICODE List

Use the Find and Browse features to locate codes to add to your query.

Enter text to find terms containing or related to the text.
Example: pharmacol*
fertilizer*

Results Page 1 (Terms 1 - 16 of 16)

KEY: = add to query = view in hierarchy = view scope notes

- EE100 Economics (General)
- EE140 Input Supply Industries (Macroeconomics)
- EE145 Input Utilization (Microeconomics)
- FF005 Field Crops (NEW March 2000)
- FF061 Plant Nutrition
- FF100 Plant Production
- JJ000 Soil Science (General)
- JJ700 Fertilizers and other Amendments
- KK110 Silviculture and Forest Management
- KK540 Non-wood Forest Products
- NN400 Agricultural and Forestry Equipment (General)
- NN420 Fertilizer Application Equipment (Discontinued March 2000)
- XX100 Animal Wastes
- XX300 Human Wastes and Refuse
- ZZ200 Materials Science
- ZZ500 Physical Sciences (General)

Calcium fertilizers

KEY: = add to query = view in hierarchy = view thesaurus details

Thesaurus Term: **calcium fertilizers**

Broader Term(s): fertilizers

Narrower Term(s): calcium ammonium nitrate
 calcium chloride
 calcium cyanamide
 calcium nitrate
 calcium phosphates
 gypsum
 phosphogypsum

Related Term(s): calcium
 liming materials

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.

All Databases | **Select a Database** | CAB Abstracts | **Additional Resources**

Search | Advanced Search | Search History | Marked List (0)

CAB Abstracts[®]

Results Topic=("crop rotation" and (soybean* or "glycine max*"))
Timespan=All Years. Databases=ABSTRACTS.

Results: **866** Page 1 of 87 | Sort by: Latest Date

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

Refine Results

Search within results for: [] Search

Subject Areas Refine

- PLANT SCIENCES (844)
- AGRICULTURE (791)
- ENVIRONMENTAL SCIENCES & ECOLOGY (397)
- CHEMISTRY (240)
- PATHOLOGY (160)

more options / values...

Document Types Refine

- JOURNAL ARTICLE (735)
- CONFERENCE PAPER (89)
- BOOK CHAPTER (36)
- MISCELLANEOUS (19)
- BULLETIN (13)

more options / values...

Authors

Source Titles

Publication Years Refine

Descriptors

CABICODES

Languages
For advanced refine options, use Analyze Results

1. Title: Hydrogen emission from nodulated soybeans [Glycine max (L) Merr.] and consequences for the productivity of a subsequent maize (Zea mays L.) crop.
Author(s): Peoples, M. B., McLennan, P. D., Brockwell, J.
Source: **Plant and Soil** Volume: 307 Issue: 1-2 Page(s): 67-82 Published: 2008
Full Text

2. Title: Nitrogen application rate effect on nitrate-nitrogen concentration and loss in subsurface drainage for a corn-soybean rotation.
Author(s): Lawlor, P. A., Helmers, M. J., Baker, J. L., et al.
Source: **Transactions of the ASABE** Volume: 51 Issue: 1 Page(s): 83-94 Published: 2008
Full Text

3. Title: Crop rotation and nitrogen fertilization effect on soil CO₂ emissions in central Iowa.
Author(s): Wilson, H. M., Al-Kaisi, M. M.
Source: **Applied Soil Ecology** Volume: 39 Issue: 3 Page(s): 264-270 Published: 2008
Full Text

4. Title: Evaluation of two process-based models to estimate soil N₂O emissions in Eastern Canada.
Author(s): Smith, W. N., Grant, B. B., Desjardins, R. L., et al.
Source: **Canadian Journal of Soil Science** Volume: 88 Issue: 2 Page(s): 251-260 Published: 2008

5. Title: Nitrous oxide and carbon dioxide emissions from monoculture and rotational cropping of corn, soybean and winter wheat.
Author(s): Drury, C. F., Yang, X. M., Reynolds, W. D., et al.
Source: **Canadian Journal of Soil Science** Volume: 88 Issue: 2 Page(s): 163-174 Published: 2008

6. Title: Adapting sugarcane nitrogen management practices to take account of legume fallows.
Author(s): Park, S., Horan, H., Webster, T., et al.
Conference Information: Proceedings of the 2008 Conference of the Australian Society of Sugar Cane Technologists held at Townsville, Queensland, Australia, 29 April - 2 May 2008.
Source: **Proceedings of the 2008 Conference of the Australian Society of Sugar Cane Technologists held at Townsville, Queensland, Australia, 29 April - 2 May 2008** Page(s): 365-366 Published: 2008

7. Title: Economic analysis of winter barley production for different soil tillage and nitrogen fertilization systems.

Results: **866** Show 10 per page | Page 1 of 87 | Sort by: Latest Date

Output Records

Step 1:

- Selected Records on page
- All records on page
- Records [] to []

Step 2:

- Authors, Title, Source
- plus Abstract
- Full Record

Step 3: [How do I export to bibliographic management software?]

Print | E-mail | Add to Marked List | Save to EndNote Web | Save to EndNote, RefMan, ProCite | Save to other Reference Software | Save

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

ISI Web of KnowledgeSM Take the next step

All Databases | Select a Database | CAB Abstracts | Additional Resources

Search | Advanced Search | Search History | Marked List (0)

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Search History

Set	Results		Combine Sets	Delete Sets
# 3	128	#2 AND #1 <small>Databases=ABSTRACTS Timespan=All Years</small>	<input type="checkbox"/>	<input type="checkbox"/>
# 2	77,725	Topic=(nitrogen same (fertili?er* or fertili?ation)) <small>Databases=ABSTRACTS Timespan=All Years</small>	<input type="checkbox"/>	<input type="checkbox"/>
# 1	866	Topic="(crop rotation" and (soybean" or "glycine max")) <small>Databases=ABSTRACTS Timespan=All Years</small>	<input type="checkbox"/>	<input type="checkbox"/>

Save History / Create Alert | Open Saved History

Combine Sets: AND OR | Delete Sets: Select All, Delete

ISI Web of KnowledgeSM Take the next step

Signed In | My Endnote Web | My Citation Alerts | My Journal List | My Saved Searches

Open / Manage Saved Searches

<< Back

Open from the ISI Web of Knowledge Server:
Use this box to open histories that were saved to your private account on our Server.

Display histories from: All Products (Go)

History Name	Product	Description	RSS Feed	Alerting	Modify Settings	Delete
crop rotation	CAB Abstracts		XML	Status: On Expires: 2009-01-20 (Renew)	Settings	<input type="checkbox"/>
zoo	Web of Science		XML	Status: On Expires: 2008-11-27 (Renew)	Settings	<input type="checkbox"/>

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

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For ongoing Web-based training, visit:
scientific.thomsonreuters.com/support/training/webtraining

The screenshot displays the EndNote Web interface. At the top, there is a navigation bar with tabs for 'My References', 'Collect', 'Organize', 'Format', 'Options', and 'Administrator Tools'. Below this, a search box is visible with the text 'crop rotation' entered. The main content area shows a list of references with columns for 'Author', 'Year', and 'Title'. The references listed are:

Author	Year	Title	Edit
<input type="checkbox"/> Bogdan, I.	2007	Research concerning the weeding level of autumn wheat-potato-maize and soybean crop rotation, in Cluj County Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca. Agriculture ISI Web of Knowledge SM → Source Record +Links	Edit
<input type="checkbox"/> Dugje, I. Y.	2008	Influence of farmers' crop management practices on Striga hermonthica infestation and grain yield of maize (Zea mays L.) in the savanna zones of northeast Nigeria Journal of Agronomy ISI Web of Knowledge SM → Source Record +Links	Edit
<input type="checkbox"/> Idowu, O. J.	2008	Hydraulic properties in relation to morphology of a tropical soil with hardened plinthite under three land use types Tropical and Subtropical Agroecosystems ISI Web of Knowledge SM → Source Record +Links	Edit
<input type="checkbox"/> McDonald, P. B.	2008	Establishment and growth of self-seeded winter cereal cover crops in a soybean-corn rotation Agronomy Journal ISI Web of Knowledge SM → Source Record +Links	Edit
<input type="checkbox"/> McDonald, P. B.	2008	Self-seeded cereal cover crop effects on interspecific competition with corn Agronomy Journal	Edit