AGRICOLA (Agriculture Online Access Database)

Subject Coverage	• Agriculture	• Home Economics
	• Animal Science	• Life Sciences
	• Biotechnology	• Natural Resources
	• Chemistry	• Nutrition
	• Energy	• Pesticides
	• Entomology	• Plant Diseases
	• Food Science	• Rural Society
	• Forestry	• Soil Science
	• Genetics	• Veterinary Medicine

File Type

Bibliographic

Features

Thesaurus	Controlled Term (/CT)
	Geographic Term (/GT)
Alerts (SDIs)	Monthly

CAS Registry Number® Identifiers	☐	Page Images	☐
Keep & Share	☑	SLART	☑
Learning Database	☐	Structures	☐

Record Content

- Worldwide coverage of agriculture and related fields
- Records contain bibliographic information, geographic terms, controlled terms, and supplementary terms that include GenBank Numbers
- Abstracts are available for about 20% of records

File Size

More than 7.1 million records (09/2030)

Coverage

1970-present

Updates

Monthly

Language

English

Database Producer

National Agricultural Library (NAL)
U.S. Department of Agriculture (USDA)
10301 Baltimore Avenue
Beltsville, MD 20705

Database Supplier

FIZ Karlsruhe
STN Europe
P.O. Box 2465
76012 Karlsruhe
Germany
Phone: +49-7247-808-555
Fax: +49-7247-808-259
Email: helpdesk@fiz-karlsruhe.de

Sources	- Bibliographies - Serial Articles - Book Chapters - Monographs - Computer Files - Serials - Maps - Audiovisuals - Reports - Catalogs and chemical libraries from suppliers worldwide
User Aids	- Online Helps (HELP DIRECTORY lists all help messages available) - STNGUIDE
Clusters	- AGRICULTURE - AUTHORS - ALLBIB - BIOSCIENCE - CHEMISTRY - COMPANIES - CORPSOURCE - ENVIRONMENT - FOOD - MEETINGS - NPS - TOXICOLOGY STN Database Cluster information: http://www.stn-international.com/en/customersupport/customer-support#cluster+%7C+subjects+%7C+features

Search and Display Field Codes

Fields that allow left truncation are indicated by an asterisk (*).

Search Field Name	Search Code	Search Example	Display Codes
Basic Index *(contains single words from the title (TI), CABA and Library of Congress controlled term (CT), supplementary term (ST), abstract (AB), named person (NA), corporate name (CO), note (NTE), geographic term, CABA and other (GT) fields)	None (or /BI)	S FORAGING S NATURAL PEST CONTROL? S STATE (L) COUNCIL# S GENBANK U35001	AB, CO, CT, GT, NA, NTE, ST, TI
Abstract*	/AB	S (ORGANIC COMPOUND?)/AB	AB
Accession Number	/AN	S 1998:2795/AN	AN
Author	/AU	S LEMASTERS J?/AU	AU
Availability (contains codes for filing and holding locations, NAL and Library of Congress call numbers designations)	/AV	S L1 AND DNAL/AV S MARINE SCIENCES AND DLC/AV S MIU/AV	AV
Classification Code **(1)**	/CC	S DAIRY/CC S CONSUMER ECONOMICS/CC	CC
Corporate Name **(1)**	/CO	S RESEARCH CENTER/CO	CO
Controlled Term, CABA and Library of Congress **(2)**	/CT	S CINCHONA/CT S ACID RAIN+ALL/CT	CT
Controlled Word (contains single words from CABA controlled terms and Library of Congress controlled terms)	/CW	S (AGRICULTUR? (S) WORK#)/CW	CT
Corporate Source **(1)**	/CS	S DEPARTMENT OF AGRICULTURE/CS S "ROSS LABORATORIES"/CS	CS
Country of Publication (ISO code and text)	/CY	S L1 AND GB/CY	CY
Document Number	/DN	S IND20496956/DN	DN
Document Type (code and text)	/DT (or /TC)	S L5 AND C/DT	DT
Entry Date **(3)**	/ED	S ED>=JAN 2012	ED
Field Availability	/FA	S AB/FA	FA
File Segment	/FS	S TRANSLATION/FS	FS
Geographic Term, CABA and other **(2)**	/GT	S EAST ASIA/GT S SHANGHAI+BT/GT	GT
International Standard (Document) Number (contains CODEN, ISSN, and ISBN)	/ISN	S 1000-1298/ISN	ISN, SO
Journal Title (contains full and abbreviated title)	/JT	S JOURNAL OF AGRIBUSINESS/JT S J AGRIBUSINESS/JT	JT, JTA, JTF, SO
Language (ISO code and text)	/LA	S FR/LA	LA
Meeting Title **(1)**	/MT	S WORLD PARKS/MT	MT, SO
Meeting Location **(1)**	/ML	S SAN DIEGO/ML	ML, SO
Meeting Year **(3)**	/MY	S 1995-1996/MY	MY, SO
Named Person	/NA	S OBAMA MICHELLE/NA	NA
Note	/NTE	S NOTEBOOK#/NTE	NTE
Number of Report	/NR	S AEC/NR	NR

Search and Display Field Codes (cont'd)

Search Field Name	Search Code	Search Example	Display Codes
Publication Year **(3)**	/PY	S 1996/PY	PY, SO
Publisher	/PB	S SPRINGER NEW YORK/PB	PB, SO
Source (contains publication title, collation information (volume, issue, pagination), meeting information, ISBN, ISSN, CODEN, publication date, publication frequency, Library of Congress control number, publication status, publisher, editors, government source, etc.)	/SO	S (CHROMATOGRAPHY AND ELSEVIER)/SO S JCRAEY/SO S VOLUME/SO	SO
Summary Language (code and text)	/SL	S EN/SL	SL
Supplementary Term (includes GenBank Numbers)	/ST	S NEST ABANDONMENT/ST S GENBANK U51451/ST	ST
Title*	/TI	S (RUN OFF OR RUNOFF)/TI	TI
Update Date **(3)**	/UP	S L4 AND UP>NOV 2012	ED
Word Count, Title **(3)**	/WC.T	S WC.T<3	WC.T

(1) Search with implied (S) proximity is available in this field.
(2) There is an online thesaurus associated with this field.
(3) Numeric search field that may be searched using numeric operators or ranges.

Property Fields[1)]

In AGRICOLA a numeric search for a specific set of physical properties (/PHP) is available within the abstract and title fields. The numeric values are not displayed as single fields, but highlighted within the hit displays.

Use EXPAND/PHP to search for all available physical properties. A search with the respective field codes will be carried out in the abstract and title fields. The /PHP index contains a complete list of codes and related text for all physical properties available for numeric search.

Field Code	Property	Unit	Search Examples
/AOS	Amount of substance	Mol	S 10/AOS
/BIR	Bit Rate	Bit　　　(Bit)	S 100000-160000/BIR
/BIT	Stored Information	Bit	S BIT > 3 MEGABIT (10A) STORAGE
/CAP	Capacitance	Farad	S 1-10 MF/CAP
/CDN	Current Density	Ampere/Square Meter	S CDN>5 A/M**2
/CMOL	Molarity (Concentration, amount of substance)	mol/l	S MOLYBD?/BI (S) 2/CMOL
/CON	Conductance	S　　　(Siemens)	S 1E-2/CON
/DB	Decibel	Decibel	S DB>50
/DEG	Degree	Degree	S (POLARI? (S) ANGLE)/BI (S) 45/DEG
/DEN	Density (Mass Density)	Kg/m3	S (METHOD? (S) COMPO?)/AB (S) 5E-3-10E-3/DEN
/DEQ	Dose Equivalent	Sievert	S DEQ>0.5 (S) RADIATION
/DOS	Dosage	Milligram/Kilogram	S DOS>0.8
/DV	Viscosity, dynamic	Pa * s　　(Pascal * second)	S DV>5000

Property Fields[1] (cont'd)

Field Code	Property	Unit	Search Examples
/ECH	Electric Charge	Coulomb	S 15/ECH
/ECO	Electrical Conductivity	Siemens/Meter	S ECO>5000 (XA) GEOTHERMAL EFFECTS
/ELC	Electric Current	Ampere	S 1-10/ELC
/ELF	Electric Field	Volt/Meter	S 1-10/ELF
/ENE	Energy	J (Joule)	S NUTRIENTS AND 100/ENE
/ERE	Electrical Resistivity	Ohm * Meter	S ERE>10
/FOR	Force	N (Newton)	S 50 N/FOR
/FRE	Frequency	Hz (Hertz)	S ANALY?/AB (10A) 0-3/FRE
/IU	International Unit	none	S IU>100 (P) INTERFERON
/KV	Viscosity, kinematic	m2/s	S LUBRICANT/BI (S) 10E-5/KV
/LEN (or /SIZ)	Length	Meter	S 1-4/LEN
/LUME	Luminous Emittance/Illuminance	Lux	S 10-50/LUME
/LUMF	Luminous Flux (Luminous Power)	Lumen	S FLUID (P) LUMF>3
/LUMI	Luminous Intensity	Candela	S 5<LUMI<15
/M	Mass	Kg (Kilogram)	S ALLOY/BI (30A) 1E-10-1E-5/M
/MFD (or /MFS)	Magnetic Flux Density	Tesla	S MFD>0E-3(S)MAGNETIC RESONANCE
/MFR (or /MFL)	Mass Flow Rate	Kilogram/Second	S MFR>1.2
/MM	Molar Mass	g/mol	S 2000-3000 G/MOL/MM
/MOLS	Molality of Substance	mol/kg	S 01.-10 mol/kg/MOLS
/PER	Percent (Proportionality)	Percent	S (TITAN? (3A) DIOXID?)/AB (S) 53/PER
/PHV	pH	pH	S 7.4-7.6/PHV
/POW	Power	W (Watt)	S (SOLAR? OR PHOTOVOLTAIC?)/BI (10A) 5-10/POW
/PRES (or /P)	Pressure	Pa (Pascal)	S (VACUUM (5A) DISTILL?)/BI (S) 1000-1100/PRES
/RAD	Radioactivity	Bq (Becquerel)	S RAD>100
/RES	Electrical Impedance/resistance	Ohm	S VOLTAGE/AB (P) 1-10/RES
/RSP	Rotational Speed	Revolution/Minute	S 5000-8000/RSP AND PARAFFIN
/SAR	Area /Surface Area	m2	S (COATING? OR FOIL?)/BI (S) 10-100/SAR
/SOL	Solubility	Gram/100 gram	S SOL>20 (10W) WATER
/STSC	Surface Tension	J/m2	S 60 J/M**2 /STSC
/TCO	Thermal Conductivity	K (Kelvin)	S 2-17/TCO (S) THERM?
/TEMP (or /T)	Temperature	K (Kelvin)	S (STABILITY (25A) VITAMIN?) (S) 10/TEMP
/TIM	Time	S (Second)	S CONDUCT?/AB (10W) 0-1/TIM
/VEL (or /V)	Velocity	m/s (Metre per Second)	S EVOL?/BI AND 2E-4-5E-4/VEL
/VELA	Velocity, angular	rpm	S VISCO?/AB (S) VELA<350
/VLR	Volumetric Flow Rate	Cubic Meter/Second	S 1-10/VLR (XA) VARIABILITY
/VOL	Volume	m3	S ?EFFECT?/BI (15A) 1E-8-2E-8 /VOL
/VOLT	Voltage	V (Volt)	S APPLICATION/BI(10A) 5E-3<VOLT<7E-3

(1) Exponential format is recommended for the search of particularly high or low values, e.g. 1.8E+7 or 1.8E7 (for 18000000) or 9.2E-8 (for 0.000000092).

Thesaurus Fields

Thesauri are present for the Controlled Term (/CT) and Geographic Term (/GT) search fields in the AGRICOLA File. The following Relationship Codes may be used with both the SEARCH and EXPAND commands in these fields.

Controlled Term (/CT)

Relationship Code	Content	Example
ALL	All associated terms (SELF, BT, USE, UF, NT, RT)	E BACTERIAL INSECTICIDES+ALL/CT
AUTO **(1)**	Narrower Terms (SELF, NT)	E ORGANOCHLORINE INSECTICIDES+AUTO/CT
BT	Broader Terms (SELF, BT)	E WEED CONTROL+BT/CT
HIE	Hierarchy terms (all broader and Narrower Terms) (SELF, BT, NT)	E VIRAL INSECTICIDES+HIE/CT
KT	Keyword Terms (SELF, KT)	E CONTROL+KT/CT
NT	Narrower Terms (SELF, NT)	E ECOLOGY+NT/CT
PFT	All Preferred and Forbidden Terms (SELF, USE)	E NATURAL BALANCE+PFT/CT
RT	Related (see also) terms (SELF, RT)	E RAINY SEASON+RT/CT
STD	All Broader, Narrower, and Related Terms (SELF, BT, NT, RT)	E DISEASE CONTROL+STD/CT
UF	Used For terms (Forbidden Terms) (SELF, UF)	E DROUGHT RESISTANCE+UF/CT
USE	Use terms (Preferred Terms) (SELF, USE)	E DROUGHT TOLERANCE+USE/CT

(1) Automatic Relationship Code is SET OFF. If you SET RELATION ON, the result of EXPAND without any relationship code is the same as described for AUTO.

Geographic Term (/GT)

Relationship Code	Content	Example
ALL	All associated terms (SELF, BT, NOTE, USE, UF, NT, RT)	E UK+ALL/GT
AUTO **(1)**	Narrower Terms (SELF, NT)	S SCOTLAND+AUTO/GT
BT	Broader Terms (SELF, BT)	E CONNECTICUT+BT/GT
HIE	Hierarchy Terms (all Broader and Narrower Terms) (SELF, BT, NT)	E USA+HIE/GT
KT	Keyword Terms (SELF, KT)	E AMERICA+KT/GT
NT	Narrower Terms (SELF, NT)	S ECUADOR+NT/GT
PFT	All Preferred and Forbidden Terms (SELF, USE, UF)	E UNITED STATES OF AMERICA+PFT/GT
RT	Related (see also) Terms (SELF, RT)	E PUERTO RICO+RT/GT
STD	All Broader, Narrower, and Related Terms (SELF, BT, NT, RT)	E CARIBBEAN+STD/GT
UF	Used For terms (Forbidden Terms) (SELF, UF)	E USA+UF/GT
USE	Use terms (Preferred Terms) (SELF, USE)	E BRITAIN+USE/CT

(1) Automatic Relationship Code is SET OFF. If you SET RELATION ON, the result of EXPAND without any relationship code is the same as described for AUTO.

Thesaurus Field Descriptors

Code	Description
SELF (-->)	Thesaurus Term
BT	Broader Term
KT	Keyword Term (Permuted Index)
NOTE	Note
NT	Narrower Term
RT	Related Term
UF	Forbidden Term
USE	Preferred Term

DISPLAY and PRINT Formats

Any combination of formats listed below may be used to display or print answers. Multiple codes must be separated by spaces or commas, e.g., D L1 1-5 TI SO, D L1 1-5 TI,SO. The fields are displayed in the order requested.

Hit-term highlighting is available in all fields. Highlighting must be on during SEARCH in order to use the HIT, KWIC, and OCC formats.

Format	Content	Examples
AB	Abstract	D TI AB
AN	Accession Number	D AN
AU	Author	D AU CS 1-5
AV	Availability	D AV
CC	Classification Code	D 2 4 6 CC
CO	Corporate Name	D CO
CS	Corporate Source	D CS 1,25
CT	Controlled Term, CABA and Library of Congress	D CT
CY	Country of Publication	D CY
DN	Document Number	D AN DN
DT (TC)	Document Type	D DT
FS	File Segment	D FS
GT	Geographic Term, CABA and other	D GT
ISN **(1)**	International Standard (Document) Number (CODEN, ISBN, ISSN)	D ISN
JT **(1)**	Journal Title (JTF and JTA)	D JT
JTA **(1)**	Journal Title, Abbreviated	D JTA
JTF **(1)**	Journal Title, Full	D JTF
LA	Language	D LA SL
ML **(1)**	Meeting Location	D ML
MT **(1)**	Meeting Title	D MT
MY **(1)**	Meeting Year	D MY
NA	Named Person	D NA
NTE	Note	D NTE
NR	Number of Report	D NR
PB **(1)**	Publisher	D PB
PY **(1)**	Publication Year	D JT PY
SL	Summary Language	D LA SL
SO	Source	D SO
ST	Supplementary Term	D CT ST
TI	Title	D TI
WC.T **(1)**	Word Count, Title	D WC.T

DISPLAY and PRINT Formats (cont'd)

Format	Content	Examples
IABS	ABS, with a text label	D IABS
ALL	AN, DN, TI, AU, CS, NR, SO, NTE, CY, DT, FS, LA, SL, AV, ED, AB, CC, GT, CT, ST, NA, CO	D L3 2 ALL
DALL	ALL, delimited for post-processing	D DALL
IALL	ALL, indented with text labels	D L7 6 IALL
BIB	AN, DN, TI, AU, CS, NR, SO, NTE, CY, DT, FS, LA, SL, AV, ED (BIB is the default)	D 1-
IBIB	BIB, indented with text labels	D IBIB
IND	AN, CC, GT, CT, ST, NA, CO	D IND
SCAN **(2)**	TI, CC, GT, CT, ST, NA, CO (random display without answer numbers)	D SCAN
TRIAL (TRI, SAM, SAMPLE, FREE)	TI, CC, GT, CT, ST, NA, CO	D SAM 2-4, 10
HIT	Fields containing hit terms	D HIT
KWIC	Hit terms plus 50 words on either side (Key-Word-In-Context)	D KWIC
OCC	Number of occurrences of hit terms and fields in which they occur	D OCC

(1) Custom display only.
(2) SCAN must be specified on the command line, i.e., D SCAN or DISPLAY SCAN.

SELECT, ANALYZE, and SORT Fields

The SELECT command is used to create E-numbers or an L-number containing terms taken from the specified field in an answer set.

The ANALYZE command is used to create an L-number containing terms taken from the specified field in an answer set.

The SORT command is used to rearrange the search results in either alphabetic or numeric order of the specified field(s).

Field Name	Field Code	ANALYZE/ SELECT (1)	SORT
Abstract	AB	Y	N
Accession Number	AN	Y	N
Author	AU	Y	Y
Availability	AV	Y	Y
Citation	CIT	Y **(2,3)**	N
Classification Code	CC	Y	Y
CODEN	CODEN	N	Y
Controlled Term, CABA and Library of Congress	CT	Y	N
Corporate Name	CO	Y	Y
Corporate Source	CS	Y	Y
Country of Publication	CY	Y	Y
Document Number	DN	Y	Y
Document Type	DT (TC)	Y	Y
File Segment	FS	Y	Y
Geographic Term, CABA and other	GT	Y	Y
International Standard Book Number	ISBN	N	Y
International Standard (Document) Number	ISN	Y **(4)**	N
International Standard Serial Number	ISSN	N	Y
Journal Title	JT	Y	Y
Journal Title, Abbreviated	JTA	Y **(5)**	Y
Journal Title, Full	JTF	Y **(5)**	Y
Language	LA	Y	Y
Meeting Location	ML	Y	Y
Meeting Title	MT	Y	Y
Meeting Year	MY	Y	Y
Named Person	NA	Y	Y
Note	NTE	Y	N
Number of Report	NR	Y	Y
Occurrence Count of Hit Terms	OCC	N	Y
Publisher	PB	Y	Y
Publication Year	PY	Y	Y
Source	SO	Y **(6)**	N
Summary Language	SL	Y	Y
Supplementary Term	ST	Y	N
Title	TI	Y (default)	Y
Word Count, Title	WC.T	Y	Y

(1) HIT may be used to restrict terms extracted to terms that match the search expression used to create the answer set, e.g., SEL HIT CT.

(2) SELECT HIT and ANALYZE HIT are not valid with this field.

(3) Extracts first author, publication year, volume, and first page with a truncation symbol appended and with /RE appended to the terms created by SELECT.

(4) Selects or analyzes the CODEN, ISBN, and ISSN with /ISN appended to the terms created by SELECT.

(5) Appends /JT to the terms created by SELECT.

(6) Selects or analyzes the CODEN, ISBN, and ISSN with /SO appended to the terms created by SELECT.

Sample Records

DISPLAY ALL OF JOURNAL

AN	2012:26 AGRICOLA
DN	IND44618682
TI	Potential uses for cuphea oil processing byproducts and processed oils
AU	Tisserat, Brent; O'kuru, Rogers Harry; Cermak, Steven C; Evangelista, Roque L; Doll, Kenneth M
SO	Industrial crops and products (2012), Volume 35, Number 1, pp. 111-120 Source Note: 2012 Jan., v. 35, no. 1
NTE	Electronic resource: http://dx.doi.org/10.1016/j.indcrop.2011.06.019 (Available from publisher's Web site)
DT	Journal; Article
FS	Non-US
LA	English
AV	DNAL (SB13.I52)
ED	Entered STN: 4 Jan 2012 Last updated on STN: 4 Jan 2012

AB Summary: Cuphea spp. have seeds that contain high levels of medium chain fatty acids and have the potential to be commercially cultivated. In the course of processing and refining cuphea oil a number of byproducts are generated. Developing commercial uses for these byproducts would improve the economics of growing cuphea. Oil fractions and byproducts were obtained from processed seeds of cuphea germplasm line PSR 23 (Cuphea viscosissima × Cuphea lanceolata). We investigated the employment of oil byproducts as growth regulators and solid residues as organic soil amendments on Calabrese broccoli (Brassica oleracea L, family Brassicaceae) seedling growth. Seed processing solid residue fractions, included presscake, bin trash, stem trash and seed trash. These fractions were ground and mixed into soil to obtain concentrations of 0, 0.5, 1, 3, and 10% (w/w). Ground presscake and bin trash could be employed as an organic soil amendment up to 1% without detrimental effects on broccoli. Ground seed meal (seed trash) was detrimental to seedling growth at all concentrations tested. Stem trash employed at 1% caused fresh and dry weights to increase 26.8 and 29.8%, respectively, compared to untreated broccoli seedlings. Stem trash could be employed up to 10% without a detrimental effect on broccoli seedlings. Solvent extraction to remove residual oils from residue fractions was also conducted to generate improved soil amendments. Generally, solvent extraction of seed-processing residue fractions improved the broccoli seedling growth responses. Administration of processed oils and their byproduct fractions as foliar sprays on broccoli seedlings was conducted at rates of 0, 10, 30, and 50 g L-1. Plants were evaluated 72 h after spraying. Refined and crude oils had no effect on broccoli seedlings; gums and soapstock sprays had no effect at 10 or 30 g L-1 concentrations but at 50 g L-1 it killed seedlings. Distilled fatty acid fraction sprays killed broccoli seedlings at all tested concentrations. Certain oil byproduct fractions from cuphea oil processing can be employed as ;environmentally-friendly; herbicidal sprays. Calorific evaluation of cuphea ag-wastes were conducted and found to compare well to other biomass energy sources.

CC	W000 Pollution; J500 Soil Fertility, Fertilizers and Manures; F600 Plant Physiology and Biochemistry
CT	Cuphea; cuphea seed oil; processing waste; soil amendments; Brassica oleracea var. italica; seedling growth
ST	Cuphea viscosissima; Cuphea lanceolata

DISPLAY BIB OF MONOGRAPHY

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AN     2012:35   AGRICOLA
DN     CAT31091182
TI     Polyfluorinated chemicals and transformation products
AU     Knepper, Thomas P; Lange, F T; Barcelo, Damia
SO     (2012), xiii, 172 p. : ill., maps ; 24 cm.
       Series Title: Handbook of environmental chemistry ; v. 17.
       ISSN: 1867-979X  ISBN: 9783642218712 (cased); 3642218717 (cased)
       Published by: Heidelberg ; New York : Springer, c2012
       Source Note: Pub. Frequency: Annual
NTE    LOC Control No.:   2011938273
CY     Germany
DT     (Monography)
FS     Non-US
LA     English
AV     DNAL (TD193.P64 2010)
ED     Entered STN: 4 Jan 2012
       Last updated on STN: 4 Jan 2012
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