

Crop_Scan

File Geodatabase Table

Thumbnail Not Available

Tags

SMAPVEX12, CropScan, irradiance, multispectral, radiometer, wavelength

Summary

This table was generated for use in analysis and validation associated with the SMAPVEX12 (Soil Moisture Active-Passive Validation Experiment 2012) project.

Description

This table summarizes data collected using CropScan during the course of the SMAPVEX12 field campaign between June 7 and July 19. Multispectral radiometers (NIR bands of 750-900 nm) were utilized to measure reflected solar radiation from the crop canopy. The radiometer has both upward- and downward-facing sensors, which capture both incoming solar radiation to the sensor and energy reflected from the canopy.

Credits

Grant Wiseman Senior Geomatics Scientist – Scientifique principal en géomatique Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada Telephone - Téléphone: 204-259-4006 Cellular - Cellulaire: 204-293-6074 Facsimile - Télécopieur: 204-259-4055 200-303 Main Street, Winnipeg, MB R3C 3G7 grant.wiseman@agr.gc.ca

Use limitations

All SMAPVEX12 data (except those already on public domain servers) will be placed on the University of Sherbrooke site. Access will be limited by password that will be provided to principle investigators and co-investigators listed below. It will be up to the principle investigators and co-investigators to ensure that staff, graduate students and post docs respect the terms of the agreement on usage and distribution. Access to the website will be restricted until July 1, 2013 for preliminary research and quality control. After July 1, 2013 all data will be transferred to a SMAP DAAC. Principle Investigators Heather McNairn, Agriculture and Agri-Food Canada Tom Jackson, USDA, ARS Hydrology and Remote Sensing Laboratory Co-Investigators Aaron Berg, University of Guelph Amine Merzouki, Agriculture and Agri-Food Canada Andreas Colliander, JPL Anne Walker, Environment Canada Brenda Toth, Environment Canada/MSCHAL Catherine Champagne, Agriculture and Agri-Food Canada Craig Smith, Environment Canada Dara Entekhabi, MIT Eni Njoku, JPL Grant Wiseman, Agriculture and Agri-Food Canada Jarrett Powers, Agriculture and Agri-Food Canada Jiali Shang, Agriculture and Agri-Food Canada John Fitzmaurice, Agriculture and Agri-Food Canada Mahta Moghaddam, University Southern California Mike Cosh, USDA, ARS Hydrology and Remote Sensing Laboratory Narendra Das, JPL Paul Bullock, University of Manitoba Peggy O'Neill, NASA GSFC Ramata Magagi, University of Sherbrooke Rotimi Ojo, University of Manitoba Sab Kim, JPL Stéphane Bélair, Environment Canada - NWP and Data Assimilation Alicia Joseph, NASA GSFC Erika Podest, JPL John Kimball, University of Montana Kalifa Goïta, University of Sherbrooke Marco Carrera, Environment Canada, Meteorological Research Division Steven Chan, JPL Vanessa Escobar, NASA GSFC

ArcGIS Metadata ►

Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE environment, geoscientificInformation

* CONTENT TYPE Downloadable Data

[Hide Topics and Keywords ▲](#)

Citation ►

* **TITLE** Crop_Scan

PRESENTATION FORMATS * digital table

RESOURCE IDENTIFIER

VALUE Crop_Scan

[Hide Citation ▲](#)

Resource Details ►

DATASET LANGUAGES * English (CANADA)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE * text table

* **PROCESSING ENVIRONMENT** Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; ESRI ArcGIS 10.0.5.4400

CREDITS

Grant Wiseman

Senior Geomatics Scientist – Scientifique principal en géomatique

Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada

Telephone - Téléphone: 204-259-4006

Cellular - Cellulaire: 204-293-6074

Facsimile - Télécopieur: 204-259-4055

200-303 Main Street, Winnipeg, MB R3C 3G7

grant.wiseman@agr.gc.ca

ARCGIS ITEM PROPERTIES

* **NAME** Crop_Scan

* **LOCATION**

file:///\\mbwinnfs106\\gis\$\\data8\\projects\\land\\soil\\SMAPVEX12\\data\\Geodatabase\\SMAPVEX_MASTER.gdb

* **ACCESS PROTOCOL** Local Area Network

[Hide Resource Details ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Grant Wiseman

ORGANIZATION'S NAME Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada
CONTACT'S POSITION Senior Geomatics Scientist – Scientifique principal en géomatique
CONTACT'S ROLE point of contact

CONTACT INFORMATION ►

PHONE

VOICE 204-259-4006

FAX 204-259-4055

ADDRESS

TYPE

DELIVERY POINT 200-303 Main Street

CITY Winnipeg

ADMINISTRATIVE AREA Manitoba

POSTAL CODE R3C 3G7

COUNTRY Canada

E-MAIL ADDRESS grant.wiseman@agr.gc.ca

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY as needed

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

CONSTRAINTS

LIMITATIONS OF USE

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Kalifa Goïta, University of Sherbrooke
Marco Carrera, Environment Canada, Meteorological Research Division
Steven Chan, JPL Vanessa Escobar, NASA GSFC

[Hide Resource Constraints](#) ▲

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL non-geographic dataset

[Hide Scope of quality information](#) ▲

[Hide Data Quality](#) ▲

Geoprocessing history ►

PROCESS

PROCESS NAME

DATE 2012-11-27 16:06:40

TOOL LOCATION C:\Program Files (x86)\ArcGIS\Desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CalculateField

COMMAND ISSUED

CalculateField Crop_Scan Field_ID [Plot] VB #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history](#) ▲

Distribution ►

DISTRIBUTION FORMAT

* NAME File Geodatabase Table

[Hide Distribution](#) ▲

Fields ►

DETAILS FOR OBJECT Crop_Scan ►

* TYPE Table

* ROW COUNT 1865

DEFINITION SOURCE

AAFC

DEFINITION

Summarizes reflected solar radiation from the crop canopy collected using CropScan.

FIELD OBJECTID ►

* ALIAS OBJECTID

* DATA TYPE OID

* WIDTH 4

* PRECISION 0

* SCALE 0

* FIELD DESCRIPTION

Internal feature number.

* DESCRIPTION SOURCE

ESRI

* DESCRIPTION OF VALUES Sequential unique whole numbers that are automatically generated.

Hide Field OBJECTID ▲

FIELD Samle_Date ►

* ALIAS Samle_Date

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Date of observation.

DESCRIPTION SOURCE

AAFC

Hide Field Samle_Date ▲

FIELD Team ►

* ALIAS Team

* DATA TYPE String

* WIDTH 255

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Name of field team recording observations.

DESCRIPTION SOURCE

AAFC

Hide Field Team ▲

FIELD Sample_Time ►

* ALIAS Sample_Time

* DATA TYPE Date

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Time readings were taken.

DESCRIPTION SOURCE

AAFC

[Hide Field Sample_Time ▲](#)

FIELD Angle ►

- * ALIAS Angle
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Angle of solar elevation, based on latitude and longitude.

DESCRIPTION SOURCE

AAFC

[Hide Field Angle ▲](#)

FIELD Irradiance ►

- * ALIAS Irradiance
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Irradiance value recorded.

DESCRIPTION SOURCE

AAFC

[Hide Field Irradiance ▲](#)

FIELD Plot ►

- * ALIAS Plot
- * DATA TYPE Integer
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Identification number of plot within which readings were taken.

DESCRIPTION SOURCE

AAFC

[Hide Field Plot ▲](#)

FIELD SS ►

* ALIAS SS
* DATA TYPE Integer
* WIDTH 4
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Identification number of sample site within each plot.

DESCRIPTION SOURCE

AAFC

Hide Field SS ▲

FIELD Reading_0 ►

* ALIAS Reading_0
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 0 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_0 ▲

FIELD Reading_440 ►

* ALIAS Reading_440
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 440 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_440 ▲

FIELD Reading_470 ►

* ALIAS Reading_470
* DATA TYPE String
* WIDTH 255
* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 470 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_470 ▲

FIELD Reading_490 ►

* ALIAS Reading_490

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 490 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_490 ▲

FIELD Reading_530 ►

* ALIAS Reading_530

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 530 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_530 ▲

FIELD Reading_550 ►

* ALIAS Reading_550

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 550 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_550 ▲

FIELD Reading_570 ►

* ALIAS Reading_570
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 570 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_570 ▲

FIELD Reading_650 ►

* ALIAS Reading_650
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 650 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_650 ▲

FIELD Reading_670 ►

* ALIAS Reading_670
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 670 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_670 ▲

FIELD Reading_700 ►

* ALIAS Reading_700
* DATA TYPE Double
* WIDTH 8
* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 700 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_700 ▲](#)

FIELD [Reading_710 ►](#)

* ALIAS Reading_710

* DATA TYPE String

* WIDTH 255

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 710 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_710 ▲](#)

FIELD [Reading_720 ►](#)

* ALIAS Reading_720

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 720 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_720 ▲](#)

FIELD [Reading_740 ►](#)

* ALIAS Reading_740

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 740 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_740 ▲](#)

FIELD Reading_780 ►

* ALIAS Reading_780
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 780 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_780 ▲

FIELD Reading_850 ►

* ALIAS Reading_850
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 850 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_850 ▲

FIELD Reading_860 ►

* ALIAS Reading_860
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 860 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_860 ▲

FIELD Reading_970 ►

* ALIAS Reading_970
* DATA TYPE Double
* WIDTH 8
* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 970 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_970 ▲](#)

FIELD [Reading_1200 ►](#)

* ALIAS Reading_1200

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 1200 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_1200 ▲](#)

FIELD [Reading_1240 ►](#)

* ALIAS Reading_1240

* DATA TYPE String

* WIDTH 255

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 1240 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_1240 ▲](#)

FIELD [Reading_1540 ►](#)

* ALIAS Reading_1540

* DATA TYPE Double

* WIDTH 8

* PRECISION 0

* SCALE 0

FIELD DESCRIPTION

Reading taken at 1540 nm.

DESCRIPTION SOURCE

AAFC

[Hide Field Reading_1540 ▲](#)

FIELD Reading_1640 ►

* ALIAS Reading_1640
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 1640 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_1640 ▲

FIELD Reading_1660 ►

* ALIAS Reading_1660
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 1660 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_1660 ▲

FIELD Reading_1700 ►

* ALIAS Reading_1700
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0

FIELD DESCRIPTION

Reading taken at 1700 nm.

DESCRIPTION SOURCE

AAFC

Hide Field Reading_1700 ▲

FIELD Field_ID ►

* ALIAS Field_ID
* DATA TYPE String
* WIDTH 10
* PRECISION 0

* SCALE 0

[Hide Field Field_ID ▲](#)

[Hide Details for object Crop_Scan ▲](#)

[Hide Fields ▲](#)

Metadata Details ►

* METADATA LANGUAGE English (CANADA)

METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 6EED6CB1-B3A4-4F4E-9C1D-EFE813FDF632

SCOPE OF THE DATA DESCRIBED BY THE METADATA * non-geographic dataset

SCOPE NAME * dataset

* LAST UPDATE 2013-03-19

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0

METADATA STYLE FGDC CSDGM Metadata

STANDARD OR PROFILE USED TO EDIT METADATA FGDC

CREATED IN ARCGIS FOR THE ITEM 2012-12-20 11:41:14

LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-03-19 10:19:53

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes

LAST UPDATE 2013-03-19 10:19:53