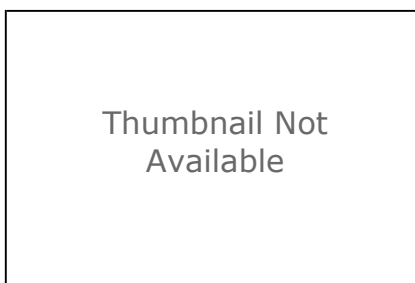


## Crop\_Scan

### dBASE Table



#### 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: 204-984-4080 Cellular - Cellulaire: 204-293-6074 Facsimile - Télécopieur: 204-983-2178 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

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 200-303 Main Street, Winnipeg, MB R3C 3G7  
 grant.wiseman@agr.gc.ca

### ARCGIS ITEM PROPERTIES

\* NAME Crop\_Scan

\* SIZE 4.286

\* LOCATION file:///\\mbwinnfs106\gis\data8\projects\land\soil\SMAPVEX12\data\Geodatabase\DBFtables\Crop\_Scan.dbf

\* 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 204-984-4080

FAX 204-983-2178

**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](mailto: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**

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/MS/CHAL

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  
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 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

[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

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

PROCESS

DATE 2012-12-13 10:26:02

TOOL LOCATION c:\program files (x86)\arcgis\desktop10.0\ArcToolbox\Toolboxes\Data Management Tools.tbx\CopyRows

COMMAND ISSUED

CopyRows W:\data8\projects\land\soil\SMAPVEX12  
 \data\Kurt\SMAPVEX\_MASTER.gdb\Crop\_Scan W:\data8\projects\land\soil\SMAPVEX12  
 \data\Kurt\DBFtables\Crop\_Scan.dbf #

INCLUDE IN LINEAGE WHEN EXPORTING METADATA No

[Hide Geoprocessing history ▲](#)

## Distribution ►

DISTRIBUTION FORMAT

\* NAME dBASE Table

TRANSFER OPTIONS

\* TRANSFER SIZE 4.286

[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 [OID ►](#)

\* ALIAS OID

\* 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 OID ▲](#)

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 254

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Name of field team recording observations.

DESCRIPTION SOURCE

AAFC

[Hide Field Team ▲](#)

FIELD [Sample\\_Tim ►](#)

\* [ALIAS](#) Sample\_Tim  
 \* [DATA TYPE](#) Date  
 \* [WIDTH](#) 8  
 \* [PRECISION](#) 0  
 \* [SCALE](#) 0

[Hide Field Sample\\_Tim ▲](#)

FIELD [Angle ►](#)

\* [ALIAS](#) Angle  
 \* [DATA TYPE](#) Double  
 \* [WIDTH](#) 19  
 \* [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](#) 9  
 \* [PRECISION](#) 9  
 \* [SCALE](#) 0

[FIELD DESCRIPTION](#)

Irradiance value recorded.

[DESCRIPTION SOURCE](#)

AAFC

[Hide Field Irradiance ▲](#)

FIELD [Plot ►](#)

\* [ALIAS](#) Plot  
 \* [DATA TYPE](#) Integer  
 \* [WIDTH](#) 9  
 \* [PRECISION](#) 9  
 \* [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 9  
 \* PRECISION 9  
 \* 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 254  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION

Reading taken at 0 nm.

DESCRIPTION SOURCE

AAFC

*Hide Field Reading\_0 ▲*

FIELD [Reading\\_44 ►](#)

\* ALIAS Reading\_44  
 \* DATA TYPE Double  
 \* WIDTH 19  
 \* PRECISION 0  
 \* SCALE 0

*Hide Field Reading\_44 ▲*

FIELD [Reading\\_47 ►](#)

\* ALIAS Reading\_47  
 \* DATA TYPE String  
 \* WIDTH 254  
 \* PRECISION 0  
 \* SCALE 0

*Hide Field Reading\_47 ▲*

FIELD [Reading\\_49 ►](#)

\* ALIAS Reading\_49  
 \* DATA TYPE Double  
 \* WIDTH 19  
 \* PRECISION 0  
 \* SCALE 0

*Hide Field Reading\_49 ▲*

FIELD [Reading\\_53 ►](#)

- \* ALIAS Reading\_53
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_53 ▲*

FIELD Reading\_55 ►

- \* ALIAS Reading\_55
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_55 ▲*

FIELD Reading\_57 ►

- \* ALIAS Reading\_57
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_57 ▲*

FIELD Reading\_65 ►

- \* ALIAS Reading\_65
- \* DATA TYPE String
- \* WIDTH 254
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_65 ▲*

FIELD Reading\_67 ►

- \* ALIAS Reading\_67
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_67 ▲*

FIELD Reading\_70 ►

- \* ALIAS Reading\_70
- \* DATA TYPE Double
- \* WIDTH 19
- \* PRECISION 0
- \* SCALE 0

*Hide Field Reading\_70 ▲*



FIELD Reading\_71 ►  
\* ALIAS Reading\_71  
\* DATA TYPE String  
\* WIDTH 254  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_71 ▲*

FIELD Reading\_72 ►  
\* ALIAS Reading\_72  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_72 ▲*

FIELD Reading\_74 ►  
\* ALIAS Reading\_74  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_74 ▲*

FIELD Reading\_78 ►  
\* ALIAS Reading\_78  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_78 ▲*

FIELD Reading\_85 ►  
\* ALIAS Reading\_85  
\* DATA TYPE String  
\* WIDTH 254  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_85 ▲*

FIELD Reading\_86 ►  
\* ALIAS Reading\_86  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_86 ▲*

FIELD Reading\_97 ►  
\* ALIAS Reading\_97  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_97 ▲*

FIELD Reading\_12 ►  
\* ALIAS Reading\_12  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_12 ▲*

FIELD Reading\_13 ►  
\* ALIAS Reading\_13  
\* DATA TYPE String  
\* WIDTH 254  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_13 ▲*

FIELD Reading\_15 ►  
\* ALIAS Reading\_15  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_15 ▲*

FIELD Reading\_16 ►  
\* ALIAS Reading\_16  
\* DATA TYPE String  
\* WIDTH 254  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_16 ▲*

FIELD Reading\_17 ►  
\* ALIAS Reading\_17  
\* DATA TYPE Double  
\* WIDTH 19  
\* PRECISION 0  
\* SCALE 0

*Hide Field Reading\_17 ▲*

**FIELD Reading\_18 ▶**

\* ALIAS Reading\_18  
 \* DATA TYPE Double  
 \* WIDTH 19  
 \* PRECISION 0  
 \* SCALE 0

*Hide Field Reading\_18 ▲*

**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 2013-01-10

**ARCGIS METADATA PROPERTIES**

METADATA FORMAT ArcGIS 1.0  
 METADATA STYLE North American Profile of ISO19115 2003  
 STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2012-12-05 11:43:44  
 LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-01-10 16:02:30

**AUTOMATIC UPDATES**

HAVE BEEN PERFORMED Yes  
 LAST UPDATE 2013-01-10 16:02:30

*Hide Metadata Details ▲*

**Metadata Maintenance ▶****MAINTENANCE**

UPDATE FREQUENCY as needed

[Hide Metadata Maintenance ▲](#)

## FGDC Metadata (read-only) ►

### Entities and Attributes ►

#### DETAILED DESCRIPTION

##### ENTITY TYPE

ENTITY TYPE LABEL Crop\_Scan

ENTITY TYPE DEFINITION

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

ENTITY TYPE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL OID

ATTRIBUTE DEFINITION

Internal feature number.

ATTRIBUTE DEFINITION SOURCE ESRI

ATTRIBUTE DOMAIN VALUES

UNREPRESENTABLE DOMAIN

Sequential unique whole numbers that are automatically generated.

##### ATTRIBUTE

ATTRIBUTE LABEL Samle\_Date

ATTRIBUTE DEFINITION

Date of observation.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Team

ATTRIBUTE DEFINITION

Name of field team recording observations.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Sample\_Tim

##### ATTRIBUTE

ATTRIBUTE LABEL Angle

ATTRIBUTE DEFINITION

Angle of solar elevation, based on latitude and longitude.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Irradiance

ATTRIBUTE DEFINITION

Irradiance value recorded.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Plot

ATTRIBUTE DEFINITION

Identification number of plot within which readings were taken.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL SS  
ATTRIBUTE DEFINITION  
Identification number of sample site within each plot.  
ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_0  
ATTRIBUTE DEFINITION  
Reading taken at 0 nm.  
ATTRIBUTE DEFINITION SOURCE AAFC

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_44

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_47

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_49

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_53

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_55

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_57

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_65

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_67

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_70

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_71

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_72

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_74

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_78

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_85

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_86

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_97

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_12

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_13

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_15

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_16

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_17

ATTRIBUTE  
ATTRIBUTE LABEL Reading\_18

ATTRIBUTE  
ATTRIBUTE LABEL Field\_ID

*Hide Entities and Attributes ▲*