

*ISO 19131 Science Strategies Summary  
by CCS (2016) – Data Product  
Specifications*

---

Revision: A

---

## Data product specifications: Science Strategies Summary by CCS (2016)

### - Table of Contents-

1.	Overview .....	4
1.1.	Informal description.....	4
1.2.	Data product specification - metadata .....	4
1.3.	Terms and definitions .....	5
1.4.	Abbreviations .....	5
2.	SPECIFICATION SCOPE .....	5
3.	DATA PRODUCT IDENTIFICATION.....	6
3.1.	Data Product identification .....	6
3.1.1.	Science Strategies Summary by CCS (2016) .....	6
4.	DATA CONTENT AND STRUCTURE.....	7
4.1.	Feature-based application schema .....	7
4.8.	Feature catalogue – Science Strategies Summary by CCS (2016) .....	8
4.8.1.	Feature attributes .....	8
4.8.1.1.	Consolidated census subdivision ID (CCSUID).....	8
4.8.1.2.	Name of Consolidated Census Subdivision (CCSNAME) .....	8
4.8.1.3.	Province ID (PRUID) .....	9
4.8.1.4.	Name of Province (PRNAME) .....	9
4.8.1.5.	Area of CCS in Hectares (CCS_AREA_HA) .....	9
4.8.1.6.	Number of Beef Cows (BEEF_HEAD_TOTAL) .....	10
4.8.1.7.	Density of Beef Cows (BEEF_PER_HA) .....	10
4.8.1.8.	Total Forage (ha) (FORAGE_TOTAL_HA).....	10
4.8.1.9.	Density of Forage (FORAGE_PER_UNIT_AREA).....	11
4.8.1.10.	Total Cereals (CEREAL_TOTAL_HA).....	11
4.8.1.11.	Density of Cereals (CEREAL_PER_UNIT_AREA) .....	11
4.8.1.12.	Total Pulses (PULSE_TOTAL_HA) .....	12
4.8.1.13.	Density of Pulses (PULSE_PER_UNIT_AREA) .....	12
4.8.1.14.	Total Oilseeds (OILSEED_TOTAL_HA).....	12
4.8.1.15.	Density of Oilseeds (OILSEED_PER_UNIT_AREA) .....	13
1.	REFERENCE SYSTEMS .....	14
1.1.	Spatial reference system .....	14
1.2.	Temporal reference system.....	14
2.	DATA QUALITY .....	14
2.1.	Completeness .....	14
2.2.	Logical consistency.....	14
2.3.	Positional accuracy .....	14

2.4.	Temporal accuracy.....	14
2.5.	Thematic accuracy.....	14
2.6.	Lineage statement.....	14
3.	DATA CAPTURE .....	14
4.	DATA MAINTENANCE .....	14
5.	PORTRAYAL.....	14
6.	DATA PRODUCT DELIVERY.....	15
7.	METADATA .....	15

# Data product specifications: Science Strategies Summary by CCS (2016) / Spécifications de contenu informationnel

## 1. Overview

### 1.1. Informal description

*The AAFC Sector Science Strategies are nine areas of focus that will; outline STB's objectives and areas of RDT, provide a framework for scientists to propose areas of work to achieve Branch and Departmental objectives, inform stakeholders on the role of STB will play, and inform RDT resource allocation within AAFC.*

*Given the importance of these sector strategies to the branch, department and stakeholders, a series of spatial data layers has been created for analysis, reporting and communication within the context of the sector science strategies. These data layers have been created by summarizing the identified variables from the Census of Agriculture and extracting relevant values from the Annual Crop Inventory.*

*Of the nine Sector Science Strategies three can be immediately applied as a spatial layer using the 2016 Census of Agriculture;*

- Oilseeds
- Beef and Forage
- Cereal and Pulse

### 1.2. Data product specification - metadata

This section provides metadata about the creation of this data product specification

Data product specification – title:	Science Strategies Summary by CCS (2016)
Data product specification - reference date:	August 24,2017
Data product specification - responsible party:	Science and Technology Branch
Data product specification – language:	English
Data product specification - topic category:	Farming/Agriculture

### 1.3. Terms and definitions

- Feature attribute  
characteristic of a feature
  
- Class  
description of a set of objects that share the same attributes, operations, methods, relationships, and semantics [UML Semantics]  
NOTE: A class does not always have an associated geometry (e.g. the metadata class).
  
- Feature  
abstraction of real world phenomena
  
- Object  
entity with a well-defined boundary and identity that encapsulates state and behaviour [UML Semantics]  
NOTE: An object is an instance of a class.
  
- Package  
grouping of a set of classes, relationships, and even other packages with a view to organizing the model into more abstract structures

### 1.4. Abbreviations

AAFC	Agriculture and Agri-Food Canada
STB	Science and Technology Branch
RDT	Research, Development, and Transfer

## 2. SPECIFICATION SCOPE

This data specification has only one scope, the general scope.

NOTE: The term 'specification scope' originates from the International Standard ISO19131. 'Specification scope' does not express the purpose for the creation of a data specification or the potential use of data, but identifies partitions of the data specification where specific requirements apply.

### 3. DATA PRODUCT IDENTIFICATION

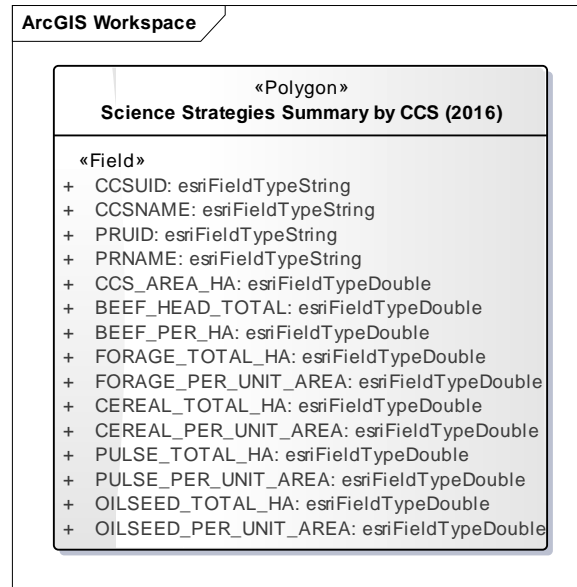
#### 3.1. Data Product identification

##### 3.1.1. Science Strategies Summary by CCS (2016)

Title	Science Strategies Summary by CCS (2016)
Alternate Title	
Abstract	The "Science Strategies Summary by CCS (2016)" data was derived from the 2016 Census of Agriculture using published and draft documentation describing the Science Strategies defined by the AAFC Science and Technology Branch. It was created for facilitating the geographic description, analysis, and reporting of the sectors.
Purpose	
Topic Category	farming
Spatial Representation Type	vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	<b>Data are subject to the Government of Canada Open Data Licence : <a href="http://www.data.gc.ca">http://www.data.gc.ca</a></b>
Keywords	Agriculture statistics Government of Canada Core Subject Thesaurus (2000-02-01)
Scope Identification	dataset
Feature Attribute Names	Consolidated census subdivision ID, Consolidated census subdivision name, Province ID, Province name, Area of CCS (ha), Number of Beef Cows, Density of Beef Cows, Total Forage (ha), Density of Forage, Total Cereals (ha), Density of Cereals, Total Pulses (ha), Density of Pulses, Total Oilseeds (ha), Density of Oilseeds

## 4. DATA CONTENT AND STRUCTURE

### 4.1. Feature-based application schema



### 4.8. Feature catalogue – Science Strategies Summary by CCS (2016)

Title	Science Strategies Summary by CCS (2016)
Scope	
Version Number	1.0
Version Date	May 27 <sup>th</sup> , 2017
Producer	AFC/STB

System-generated attributes (for example, OBJECTID, Shape, Shape Length and Area) are not defined in the feature catalog.

#### 4.8.1. Feature attributes

##### 4.8.1.1. Consolidated census subdivision ID (CCSUID)

Name	Consolidated census subdivision ID		
Definition	Statistics Canada’s consolidated census subdivision ID Unique ID		
Aliases			
Producer	Statistics Canada		
Value Data Type	Character		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

##### 4.8.1.2. Name of Consolidated Census Subdivision (CCSNAME)

Name	Name of Consolidated Census Subdivision		
Definition	Statistics Canada Place Name		
Aliases			
Producer	Statistics Canada		
Value Data Type	Character		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition



**4.8.1.3. Province ID (PRUID)**

Name	Province ID		
Definition	Statistics Canada's Province ID Unique ID		
Aliases			
Producer	Statistics Canada		
Value Data Type	Character		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.4. Name of Province (PRNAME)**

Name	Name of Province		
Definition	Statistics Canada Place Name		
Aliases			
Producer	Statistics Canada		
Value Data Type	Character		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.5. Area of CCS in Hectares (CCS\_AREA\_HA)**

Name	Area of CCS in Hectares		
Definition	Area of CCS in Hectares		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.6. Number of Beef Cows (BEEF\_HEAD\_TOTAL)**

Name	Number of Beef Cows		
Definition	Number of Beef Cows by CCS as collected by Statistics Canada in the 2016 Census of Agriculture.		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.7. Density of Beef Cows (BEEF\_PER\_HA)**

Name	Density of Beef Cows		
Definition	$\frac{\text{Number of Beef Cows}}{\text{Area of CCS in Hectares}}$		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.8. Total Forage (ha) (FORAGE\_TOTAL\_HA)**

Name	Total Forage (ha)		
Definition	<p>This is a summary of the “Alfalfa and alfalfa mixtures - acres”, “All other tame hay and fodder crops - acres”, “Forage seed for seed - acres”, “Land use - Tame or seeded pasture - acres”, “Land use - Natural land for pasture - acres”, and “Corn for silage - acres” variables by CCS for Canada as collected by Statistics Canada in the 2016 Census of Agriculture.</p> <p>To convert the summary of these variables to hectares, the result was multiplied by 0.40468564224.</p>		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.9. Density of Forage (FORAGE\_PER\_UNIT\_AREA)**

Name	Density of Forage		
Definition	$\frac{\text{Total Forage (ha)}}{\text{Area of CCS in Hectares}}$		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.10. Total Cereals (CEREAL\_TOTAL\_HA)**

Name	Total Cereals (ha)		
Definition	<p>This is a summary of the “Total Wheat (43) - Acres”, “Oats - Acres”, “Barley - Acres”, “Corn for grain - Acres”, “Total rye (45) - Acres”, and “Triticale - Acres” variables by CCS for Canada as collected by Statistics Canada in the 2016 Census of Agriculture.</p> <p>To convert the summary of these variables to hectares, the result was multiplied by 0.40468564224.</p>		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.11. Density of Cereals (CEREAL\_PER\_UNIT\_AREA)**

Name	Density of Cereals		
Definition	$\frac{\text{Total Cereals (ha)}}{\text{Area of CCS in Hectares}}$		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.12. Total Pulses (PULSE\_TOTAL\_HA)**

Name	Total Pulses (ha)		
Definition	This is a summary of the “Dry field peas - acres”, “Chick peas - acres”, “Lentils - acres”, “Dry white beans - acres”, and “Other dry beans - acres” variables by CCS for Canada as collected by Statistics Canada in the 2016 Census of Agriculture. To convert the summary of these variables to hectares, the result was multiplied by 0.40468564224.		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.13. Density of Pulses (PULSE\_PER\_UNIT\_AREA)**

Name	Density of Pulses		
Definition	$\frac{\text{Total Pulses (ha)}}{\text{Area of CCS in Hectares}}$		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.14. Total Oilseeds (OILSEED\_TOTAL\_HA)**

Name	Total Oilseeds (ha)		
Definition	This is a summary of the “Canola (rapeseed) - acres”, “Soybeans - acres”, “Flaxseed - acres”, “Mustard seed - acres”, and “Sunflowers - acres” variables by CCS for Canada as collected by Statistics Canada in the 2016 Census of Agriculture. To convert the summary of these variables to hectares, the result was multiplied by 0.40468564224.		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.8.1.15. Density of Oilseeds (OILSEED\_PER\_UNIT\_AREA)**

Name	Density of Oilseeds		
Definition	$\frac{\text{Total Oilseeds (ha)}}{\text{Area of CCS in Hectares}}$		
Aliases			
Producer	Agriculture and Agri-Food Canada		
Value Data Type	Real		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

## 1. REFERENCE SYSTEMS

### 1.1. Spatial reference system

*Horizontal coordinate reference system: WGS 84  
Map projection: Web Mercator Auxiliary Sphere; EPSG: 3857; Version 8.1.4*

### 1.2. Temporal reference system

Gregorian calendar

## 2. DATA QUALITY

*Measure not defined at this time*

### 2.1. Completeness

### 2.2. Logical consistency

### 2.3. Positional accuracy

### 2.4. Temporal accuracy

### 2.5. Thematic accuracy

### 2.6. Lineage statement

Lineage Statement	<i>The science strategy definitions were used to identify the relevant Census of Agriculture variables. These were then SUM together to produce a single variable that represents the science strategy.</i>
Scope	<i>dataset</i>

## 3. DATA CAPTURE

## 4. DATA MAINTENANCE

*as NeedednotPlanned*

## 5. PORTRAYAL

Not applicable.

## 6. DATA PRODUCT DELIVERY

Delivery medium information/Informations relatives au support de livraison:

units of delivery/Unités de livraison: package

medium name/nom du support: online via HTTP, online via direct access

Delivery format information/Informations relatives au format de livraison:

File Geodatabase

format name: Esri Geodatabase (File-based) format version: 10.1

specification: A collection of various types of GIS datasets held in a file system folder.

(<http://arcgis.com>)

languages: eng

character set: utf8

## 7. METADATA

The metadata requirements follow the Government of Canada's Treasury Board Standard on Geospatial Data (ISO 19115).