

*ISO 19131 Research Centre and  
Research Farm Locations – Data  
Product Specifications*

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Revision: A

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## **Data product specifications: *Research Centre and Research Farm Locations***

### **- Table of Contents-**

1.	Overview .....	4
1.1.	Informal description .....	4
1.2.	Data product specification - metadata .....	4
1.3.	Terms and definitions .....	4
1.4.	Abbreviations .....	5
2.	SPECIFICATION SCOPE .....	5
3.	DATA PRODUCT IDENTIFICATION .....	6
3.1.	Data series identification .....	6
3.2.	Data product identification .....	7
3.2.1.	Research Farm Locations .....	7
3.2.2.	Research Farm Boundary .....	8
3.2.3.	Research Centre Locations .....	9
3.2.4.	Research Centre Boundary .....	10
3.2.5.	Building Outline .....	11
4.	DATA CONTENT AND STRUCTURE .....	12
4.1.	Feature-based application schema .....	12
4.2.	Feature catalogue – Research Centre and Research Farm Locations .....	13
4.2.1.	Feature attributes .....	13
4.2.1.1.	Directory of Federal Real Property record .....	13
4.2.1.2.	Facility Name – English .....	13
4.2.1.3.	Facility Name – French .....	14
4.2.1.4.	Address - English .....	14
4.2.1.5.	Address - French .....	14
4.2.1.6.	City - English .....	15
4.2.1.7.	City - French .....	15
4.2.1.8.	Province - English .....	15
4.2.1.9.	Province – French .....	16
4.2.1.10.	Telephone .....	16
4.2.1.11.	Postal Code .....	16
4.2.1.12.	Research Centre Hyperlink - English .....	17
4.2.1.13.	Research Centre Hyperlink - French .....	17
5.	REFERENCE SYSTEMS .....	17

5.1.	Spatial reference system .....	17
5.2.	Temporal reference system.....	17
6.	DATA QUALITY .....	18
6.1.	Completeness.....	18
6.2.	Logical consistency.....	18
6.3.	Positional accuracy.....	18
6.4.	Temporal accuracy .....	18
6.5.	Thematic accuracy.....	18
6.6.	Lineage statement .....	18
7.	DATA CAPTURE .....	18
8.	DATA MAINTENANCE .....	18
9.	PORTRAYAL.....	18
10.	DATA PRODUCT DELIVERY.....	18
11.	METADATA .....	19

# Data Product Specifications: *Research Centre and Research Farm Locations* / Spécifications de contenu informationnel

## 1. Overview

### 1.1. Informal description

The Research Centre and Research Farm Locations data series and datasets depict the geographic locations of research centres research farms where scientists, technicians and staff work to create better opportunities for farmers and all Canadians through agricultural research and innovation.

### 1.2. Data product specification - metadata

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

Data product specification – title:	Research Centre and Research Farm Locations
Data product specification - reference date:	2016 – present
Data product specification - responsible party:	Agriculture and Agri-food Canada
Data product specification – language:	English
Data product specification - topic category:	Structure

### 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

## **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 series identification

Title	Research Centre and Research Farm Locations
Alternate Title	
Abstract	This series shows the locations of research centres and research farms where scientists, technicians and staff work to create better opportunities for farmers and all Canadians through agricultural research and innovation.
Purpose	
Topic Category	Structure
Spatial Representation Type	vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Research and development
Scope identification	series

### 3.2. Data product identification

#### 3.2.1. Research Farm Locations

Title	Research Farm Locations
Alternate Title	
Abstract	The 'Research Farm Locations' dataset shows the location of 24 research farms that are affiliated with the research centres.
Purpose	
Topic Category	Structure
Spatial Representation Type	Vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Farms
Scope Identification	dataset
Feature Attribute Names	<i>DFRP, FACILITY_NAME_EN, FACILITY_NAME_FR, PHYSICAL_ADDRESS_EN, PHYSICAL_ADDRESS_FR, CITY_EN, CITY_FR, PROVINCE_EN, PROVINCE_FR</i>

**3.2.2. Research Farm Boundary**

Title	Research Farm Boundary
Alternate Title	
Abstract	The 'Research Farm Boundary' dataset shows the geographic extent of research farm parcel(s) administrated by Agriculture and Agri-Food Canada. These listings are not, under any circumstances, to be used as a substitute for legal property descriptions and professional legal advice.
Purpose	
Topic Category	Structure
Spatial Representation Type	Vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Farms
Scope Identification	dataset
Feature Attribute Names	<i>DFRP, FACILITY_NAME_EN, FACILITY_NAME_FR, CITY_EN, CITY_FR</i>



**3.2.3. Research Centre Locations**

Title	Research Centre Locations
Alternate Title	
Abstract	The 'Research Centre Locations' dataset shows the locations of the 20 Research Centres that contribute new knowledge in the future—knowledge that will continue to improve the sustainability of Canadian agriculture.
Purpose	
Topic Category	Structure
Spatial Representation Type	Vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Research and development
Scope Identification	dataset
Feature Attribute Names	<i>DFRP, FACILITY_NAME_EN, FACILITY_NAME_FR, PHYSICAL_ADDRESS_EN, PHYSICAL_ADDRESS_FR, CITY_EN, CITY_FR, PROVINCE_EN, PROVINCE_FR, TELEPHONE, POSTAL_CODE, INFO_LINK_EN, INFO_LINK_FR</i>

**3.2.4. Research Centre Boundary**

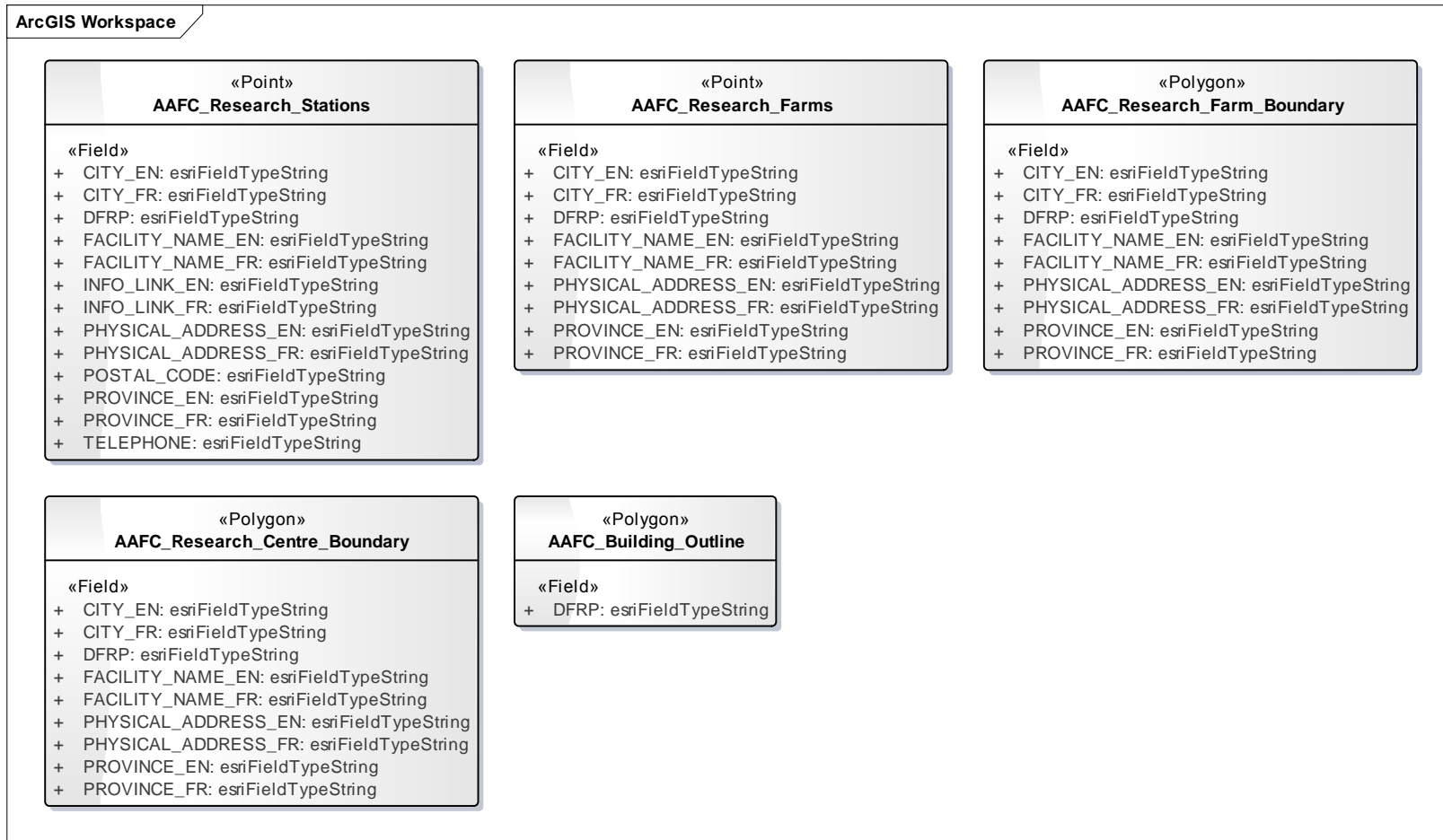
Title	Research Centre Boundary
Alternate Title	
Abstract	The 'Research Centre Boundary' dataset shows the geographic extent of research centre parcel(s) administrated by Agriculture and Agri-Food Canada. These listings are not, under any circumstances, to be used as a substitute for legal property descriptions and professional legal advice.
Purpose	
Topic Category	Structure
Spatial Representation Type	Vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Research and development
Scope Identification	dataset
Feature Attribute Names	<i>DFRP, FACILITY_NAME_EN, FACILITY_NAME_FR, PHYSICAL_ADDRESS_EN, PHYSICAL_ADDRESS_FR, CITY_EN, CITY_FR, PROVINCE_EN, PROVINCE_FR</i>

**3.2.5. Building Outline**

Title	Building Outline
Alternate Title	
Abstract	The 'Building Outline' dataset shows the building location on a parcel of land that falls within the boundary of a research centre or farm. These listings are not, under any circumstances, to be used as a substitute for legal property descriptions and professional legal advice.
Purpose	
Topic Category	Structure
Spatial Representation Type	Vector
Spatial Resolution	
Geographic Description	Canada
Supplemental Information	
Constraints	Open Government Licence - Canada ( <a href="http://open.canada.ca/en/open-government-licence-canada">http://open.canada.ca/en/open-government-licence-canada</a> )
Keywords	Farm buildings
Scope Identification	dataset
Feature Attribute Names	<i>DFRP,</i>

## 4. DATA CONTENT AND STRUCTURE

### 4.1. Feature-based application schema



## 4.2. Feature catalogue – Research Centre and Research Farm Locations

Title	Research Centre and Research Farm Locations
Scope	Series
Version Number	1.0
Version Date	2016-08-23
Producer	Agriculture and Agri-food Canada

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

### 4.2.1. Feature attributes

#### 4.2.1.1. Directory of Federal Real Property record

Name	Directory of Federal Real Property record (DFRP)		
Definition	This element that uniquely identifies a Directory of Federal Real Property record. This is the primary key to a property.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type	Integer		
Value Domain Type	0 (not enumerated)		
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

#### 4.2.1.2. Facility Name – English

Name	Facility Name – English (FACILITY_NAME_EN)		
Definition	This element contains a name describing the property.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.3. Facility Name – French**

Name	Facility Name – French (FACILITY_NAME_FR)		
Definition	This element contains a name describing the property.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.4. Address - English**

Name	Address – English (PHYSICAL_ADDRESS_EN)		
Definition	This element is a string that describes the address of the property. This may be a street address or a description (lot and concession) of the property location.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.5. Address - French**

Name	Address – French (PHYSICAL_ADDRESS_FR)		
Definition	This element is a string that describes the address of the property. This may be a street address or a description (lot and concession) of the property location.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.6. City - English**

Name	City English (CITY_EN)		
Definition	This element contains the name of the city or region in which a parcel is located.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.7. City - French**

Name	City – French (CITY_FR)		
Definition	This element contains the name of the city or region in which a parcel is located.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.8. Province - English**

Name	Province – English (PROVINCE_EN)		
Definition	This element contains the name of the Province or Territory in which a parcel is located.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.9. Province – French**

Name	Province – French (PROVINCE_FR)		
Definition	This element contains the name of the Province or Territory in which a parcel is located.		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.10. Telephone**

Name	Telephone (TELEPHONE)		
Definition	This element contains the phone number of the official contact for the custodian		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.11. Postal Code**

Name	Postal Code		
Definition	This element contains the postal code of the official contact for the custodian		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition



**4.2.1.12. Research Centre Hyperlink - English**

Name	Research Centre Hyperlink - English (INFO_LINK_EN)		
Definition	This element contains a hyperlink to the Agriculture and Agri-Food Canada website that describes research centres		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**4.2.1.13. Research Centre Hyperlink - French**

Name	Research Centre Hyperlink – French (INFO_LINK_FR)		
Definition	This element contains a hyperlink to the Agriculture and Agri-Food Canada website that describes research centres		
Aliases			
Producer	Agriculture and Agri-food Canada		
Value Data Type			
Value Domain Type			
Value Domain			
	Feature Attribute Value		
	Label	Code	Definition

**5. REFERENCE SYSTEMS**

**5.1. Spatial reference system**

Horizontal coordinate reference system: WGS84

Map projection: Web Mercator Auxiliary Sphere; EPSG 3857; Version 8.1.4

**5.2. Temporal reference system**

Gregorian calendar

## 6. DATA QUALITY

### 6.1. Completeness

### 6.2. Logical consistency

Dataset Structures were verified against the conceptual schema to ensure compliance. All attribute values were tested for uniqueness, and the absence of null attribute values. Topological consistency tests were performed to ensure that all research centre points, falls within a research centre boundary and all research farms fall within a research farm boundary.

### 6.3. Positional accuracy

Accuracy of the individual points, boundaries, and attributes were verified against an authoritative source - Directory of Federal Rural Property. Positional quality assurance was performed using ESRI ARCGIS – software, using a combination of Satellite Imagery and the ESRI World Geocoding Service. Visual Inspection happened during initial data capture, feature attribution, and at final delivery.

### 6.4. Temporal accuracy

### 6.5. Thematic accuracy

### 6.6. Lineage statement

Lineage Statement	
Scope	

## 7. DATA CAPTURE

. Point locations where verified against the Federal Directory of Real Property. Maps, legal documents, and surveys, related to AAFC real property assets (i.e., lands and building) were aggregated from disparate information systems into centralized datasets using ARCGIS software. In some instances, building and boundary datasets were compiled through manual interpretation that relied on aerial photography and satellite imagery.

## 8. DATA MAINTENANCE

Changes in the in acquisition and disposal of custodian land and buildings in Agriculture and Agri-Food Canada occurs on a frequent basis. Updates are done annually or by request to incorporate these changes into the buildings dataset.

## 9. PORTRAYAL

Not applicable.

## 10. 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: 10.4  
specification: A collection of various types of GIS datasets held in a file system folder.  
(<http://arcgis.com>)  
languages: eng  
character set: utf8

## 11. METADATA

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