ISO 19131 Extreme Weather Indices: Temperature - Data Product Specification

Revision: A

Data specification: Extreme Weather Indices

- Table of Contents -

Data product specification: Extreme Weather Indices

1. OVERVIEW

1.1. Informal description

Agriculture is an important primary production sector in Canada. Agricultural production, profitability, sustainability and food security depend on many agrometeorological factors. Extreme weather events in Canada, such as drought, floods, heat waves, frosts and high intensity storms, have the ability to significantly impact field crop production.

Agriculture and Agri-Food Canada (AAFC) and Environment and Climate Change Canada (ECCC) have together developed a suite of extreme agrometeorological indices based on four main categories of weather factors: temperature, precipitation, heat, and wind. The extreme weather indices are intended as short-term prediction tools and generated using ECCC's medium range forecasts to create a weekly index product on a daily basis.

1.2. Data product specification metadata

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

Data product specification title:	Agroclimate Data
Data product specification reference date:	2018-07-31
Data product specification responsible party:	Agriculture and Agri-Food Canada
Data product specification language:	English, French
Data product specification topic category:	Climatology/Meteorology/Atmosphere/Farming

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
ECCC	Environment and Climate Change 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

3.1.1. Temperature

Title	Temperature
Alternate Title	
Abstract	Temperature is a key factor affecting the physiological development of field crops as well as crop yield and agricultural product quality achieved during the growing season. Crop responses to the temperature are characterized by three important cardinal temperature indices; the cardinal minimum temperature, maximum cardinal temperature, and optimum temperature for field crop production at which the plant growth and development can start, stop, and proceed at the maximum rate respectively.
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2. Data Series Identification

3.2.1. Frost-free days for warm season crops (>0°C), week 1

Title	Frost-free days for warm season crops (>0˚C), week 1
Alternate Title	ffd_warmWK1
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.2. Frost-free days for warm season crops (>0°C), week 2

Title	Frost-free days for warm season crops (>0˚C), week 2
Alternate Title	ffd_warmWK2
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days

Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.3. Frost-free days for warm season crops (>0°C), week 3

Title	Frost-free days for warm season crops (>0˚C), week 3
Alternate Title	ffd_warmWK3
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement:

	https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.4. Frost-free days for warm season crops (>0°C), week 4

Title	Frost-free days for warm season crops (>0˚C), week 4
Alternate Title	ffd_warmWK4
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.5. Probability of frost for warm season crops (<0°C), week 1

Title	Probability of frost for warm season crops (<0°C), week 1
Alternate Title	ffd_warm_prob1

Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.6.Probability of frost for warm season crops (<0°C), week 2

Title	Probability of frost for warm season crops (<0°C), week 2
Alternate Title	ffd_warm_prob2
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They

	normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.7. Probability of frost for warm season crops (<0°C), week 3

Title	Probability of frost for warm season crops (<0°C), week 3
Alternate Title	ffd_warm_prob3
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.8. Probability of frost for warm season crops (<0°C), week 4

Title	Probability of frost for warm season crops (<0°C), week 4
Alternate Title	ffd_warm_prob4
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is 0°C for warm season crops. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.9. Frost-free days for cool season/overwintering crops (>-2°C), week 1

Title	Frost-free days for cool season/overwintering crops (>-2°C), week 1
Alternate Title	ffd_coolWK1
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	Frost free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid

Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.10. Frost-free days for cool season/overwintering crops (>-2°C), week 2

Title	Frost-free days for cool season/overwintering crops (>-2°C), week 2
Alternate Title	ffd_coolWK2
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	Frost free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.11. Frost-free days for cool season/overwintering crops (>-2°C), week 3

Title	Frost-free days for cool season/overwintering crops (>-2°C), week 3
Alternate Title	ffd_coolWK3
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	Frost free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.12. Frost-free days for cool season/overwintering crops (>-2°C), week 4

Title	Frost-free days for cool season/overwintering crops (>-2°C), week 4
Alternate Title	ffd_coolWK4
Abstract	Frost free days are the number of days in the forecast period with a minimum temperature above the frost temperature; the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	Frost free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees

Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.13. Probability of frost for cool season/overwintering crops (<-2°C), week 1

Title	Probability of frost for cool season/overwintering crops (> -2°C), week 1
Alternate Title	ffd_cool_prob1
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.14. Probability of frost for cool season/overwintering crops (<-2°C), week 2

Title	Probability of frost for cool season/overwintering crops (> -2°C), week 2
Alternate Title	ffd_cool_prob2
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.15. Probability of frost for cool season/overwintering crops (<-2°C), week 3

Title	Probability of frost for cool season/overwintering crops (> -2°C), week 3
Alternate Title	ffd_cool_prob3
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees

Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.16. Probability of frost for cool season/overwintering crops (<-2°C), week 4

Title	Probability of frost for cool season/overwintering crops (> -2°C), week 4
Alternate Title	ffd_cool_prob4
Abstract	The Probability (likelihood) of frost occurring. The number of days in the forecast period with a minimum temperature below the frost temperature, the temperature at which frost damage occurs. This temperature is -2°C for cool season crops. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	Frost-free days have widely been used as an estimate of the length of the growing season.
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.17. Cool wave days for warm season crops (< 10°C), week 1

Title	Cool wave days for warm season crops (< 10°C), week 1
Alternate Title	dcw_warmWK1
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.18. Cool wave days for warm season crops (< 10°C), week 2

Title	Cool wave days for warm season crops (< 10°C), week 2
Alternate Title	dcw_warmWK2
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	

Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.19. Cool wave days for warm season crops (< 10°C), week 3

Title	Cool wave days for warm season crops (< 10°C), week 3
Alternate Title	dcw_warmWK3
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada

Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.20. Cool wave days for warm season crops (< 10°C), week 4

Title	Cool wave days for warm season crops (< 10°C), week 4
Alternate Title	dcw_warmWK4
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.21. Probability of Cool wave days for warm season crops (< 10°C), week 1

Title	Probability of Cool wave days for warm season crops (< 10°C), week 1
Alternate Title	dcw_warm_prob1
Abstract	The Probability (likelihood) of cool wave days for warm season crops occurring. Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop

	growth will begin. This temperature is 10°C for warm season crops. This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.22. Probability of Cool wave days for warm season crops (< 10°C), week 2

Title	Probability of Cool wave days for warm season crops (< 10°C), week 2
Alternate Title	dcw_warm_prob2
Abstract	The Probability (likelihood) of cool wave days for warm season crops occurring. Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always

	experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.23. Probability of Cool wave days for warm season crops (< 10°C), week 3

Title	Probability of Cool wave days for warm season crops (< 10°C), week 3
Alternate Title	dcw_warm_prob3
Abstract	The Probability (likelihood) of cool wave days for warm season crops occurring. Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.24. Probability of Cool wave days for warm season crops (< 10°C), week 4

Title	Probability of Cool wave days for warm season crops (< 10°C), week 4
Alternate Title	dcw_warm_prob4
Abstract	The Probability (likelihood) of cool wave days for warm season crops occurring. Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 10°C for warm season crops. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.25. Cool wave days for cool season/overwintering crops (< 5°C), week 1

Title	Cool wave days for cool season/overwintering crops (< 5°C), week 1
Alternate Title	dcw_coolWK1
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. . This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming

Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.26. Cool wave days for cool season/overwintering crops (< 5°C), week 2

Title	Cool wave days for cool season/overwintering crops (< 5°C), week 2
Alternate Title	dcw_coolWK2
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. . This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.27. Cool wave days for cool season/overwintering crops (< 5°C), week 3

Title	Cool wave days for cool season/overwintering crops (< 5°C), week 3
Alternate Title	dcw_coolWK3
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. . This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.28. Cool wave days for cool season/overwintering crops (< 5°C), week 4

Title	Cool wave days for cool season/overwintering crops (< 5°C), week 4
Alternate Title	dcw_coolWK4
Abstract	Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. . This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada

Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.29. Probability of Cool wave days for cool season/overwintering crops (<5°C), week 1

Title	Probability of Cool wave days for cool season/overwintering crops (< 5°C), week 1
Alternate Title	dcw_cool_prob1
Abstract	The Probability (likelihood) of cool wave days for cool season/overwintering crops occurring Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.30. Probability of Cool wave days for cool season/overwintering crops (<5°C), week 2

Title	Probability of Cool wave days for cool season/overwintering crops (< 5°C), week 2
Alternate Title	dcw_cool_prob2
Abstract	The Probability (likelihood) of cool wave days for cool season/overwintering crops occurring Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.31. Probability of Cool wave days for cool season/overwintering crops (<5°C), week 3

Title	Probability of Cool wave days for cool season/overwintering crops (< 5°C), week 3
Alternate Title	dcw_cool_prob3
Abstract	The Probability (likelihood) of cool wave days for cool season/overwintering crops occurring Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid

Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.32. Probability of Cool wave days for cool season/overwintering crops (<5°C), week 4

Title	Probability of Cool wave days for cool season/overwintering crops (< 5°C), week 4
Alternate Title	dcw_cool_prob4
Abstract	The Probability (likelihood) of cool wave days for cool season/overwintering crops occurring Cool Wave Days are the number of days in the forecast period with a minimum temperature below the cardinal minimum temperature, the lowest temperature at which crop growth will begin. This temperature is 5°C for cool season crops. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series

Feature Attribute Names	

3.2.33. Heat wave days for warm season crops (>35°C), week 1

Title	Heat wave days for warm season crops (>35°C), week 1
Alternate Title	dhw_warmWK1
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.34. Heat wave days for warm season crops (>35°C), week 2

Title	Heat wave days for warm season crops (>35°C), week 2
Alternate Title	dhw_warmWK2
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	

Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.35. Heat wave days for warm season crops (>35°C), week 3

Title	Heat wave days for warm season crops (>35°C), week 3
Alternate Title	dhw_warmWK3
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000

	Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.36. Heat wave days for warm season crops (>35°C), week 4

Title	Heat wave days for warm season crops (>35°C), week 4
Alternate Title	dhw_warmWK4
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.37. Probability of Heat wave days for warm season crops (>35°C), week 1

Title	Probability of Heat wave days for warm season crops (>35°C), week 1
Alternate Title	dhw_warm_prob1
Abstract	The Probability (likelihood) of heat wave days for warm season crops occurring. Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops.

	This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.38. Probability of Heat wave days for warm season crops (>35°C), week 2

Title	Probability of Heat wave days for warm season crops (>35°C), week 2
Alternate Title	dhw_warm_prob2
Abstract	The Probability (likelihood) of heat wave days for warm season crops occurring. Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.

Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.39. Probability of Heat wave days for warm season crops (>35°C), week 3

Title	Probability of Heat wave days for warm season crops (>35°C), week 3
Alternate Title	dhw_warm_prob3
Abstract	The Probability (likelihood) of heat wave days for warm season crops occurring. Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.40. Probability of Heat wave days for warm season crops (>35°C), week 4

Title	Probability of Heat wave days for warm season crops (>35°C), week 4
Alternate Title	dhw_warm_prob4

Abstract	The Probability (likelihood) of heat wave days for warm season crops occurring. Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 35°C for warm season crops. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Warm season crops require a relatively warm temperature condition. Typical examples include bean, soybean, corn and sweet potato. They normally grow during the summer season and early fall, then ripen in late fall in southern Canada only. Other agricultural regions in Canada do not always experience sufficiently long growing seasons for these plants to achieve maturity. The optimum temperature for such crops is 30°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.41. Heat wave days for cool season crops (>30°C), week 1

Title	Heat wave days for cool season crops (>30°C), week 1
Alternate Title	dhw_coolWK1
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and

	mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.42. Heat wave days for cool season crops (>30°C), week 2

Title	Heat wave days for cool season crops (>30°C), week 2
Alternate Title	dhw_coolWK2
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.43. Heat wave days for cool season crops (>30°C), week 3

Title	Heat wave days for cool season crops (>30°C), week 3
Alternate Title	dhw_coolWK3

Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.44. Heat wave days for cool season crops (>30°C), week 4

Title	Heat wave days for cool season crops (>30°C), week 4
Alternate Title	dhw_coolWK4
Abstract	Heat Wave Days are the number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.

Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.45. Probability of Heat wave days for cool season crops (>30°C), week 1

Title	Probability of Heat wave days for cool season crops (>30°C), week 1
Alternate Title	dhw_cool_prob1
Abstract	The Probability (likelihood) of heat wave days for cool season crops occurring Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.46. Probability of Heat wave days for cool season crops (>30°C), week 2

Title	Probability of Heat wave days for cool season crops (>30°C), week 2
Alternate Title	dhw_cool_prob2

Abstract	The Probability (likelihood) of heat wave days for cool season crops occurring Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.47. Probability of Heat wave days for cool season crops (>30°C), week 3

Title	Probability of Heat wave days for cool season crops (>30°C), week 3
Alternate Title	dhw_cool_prob3
Abstract	The Probability (likelihood) of heat wave days for cool season crops occurring Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato.

	They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.48. Probability of Heat wave days for cool season crops (>30°C), week 4

Title	Probability of Heat wave days for cool season crops (>30°C), week 4
Alternate Title	dhw_cool_prob4
Abstract	The Probability (likelihood) of heat wave days for cool season crops occurring Heat wave days: The number of days in the forecast period with a maximum temperature above the cardinal maximum temperature, the temperature at which crop growth ceases. This temperature is 30°C for cool season crops This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Cool season crops require a relatively low temperature condition. Typical examples include wheat, barley, canola, oat, rye, pea, and potato. They normally grow in late spring and summer, and mature between the end of summer and early fall in the southern agricultural areas of Canada. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.49. Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 1

Title	Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 1
Alternate Title	ifd_growWK1
Abstract	Ice Freeze Days: The number of days in the forecast period with a minimum temperature below the frost temperature. This week 1 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.50. Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 2

Title	Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 2
Alternate Title	ifd_growWK2
Abstract	Ice Freeze Days: The number of days in the forecast period with a minimum temperature below the frost temperature. This week 2 forecasted index is available daily from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.51. Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 3

Title	Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 3
Alternate Title	ifd_growWK3
Abstract	Ice Freeze Days: The number of days in the forecast period with a minimum temperature below the frost temperature. This week 3 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.52. Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 4

Title	Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 4
Alternate Title	ifd_growWK4
Abstract	Ice Freeze Days: The number of days in the forecast period with a minimum temperature below the frost temperature. This week 4 forecasted index is available weekly (Thursdays) from April 1 to October 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.53. Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C, week 1

Title	Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 1
Alternate Title	ifd_grow_prob1
Abstract	The Probability (likelihood) of ice freeze days during the growing season. Ice Freeze Days: the number of days in the forecast period with a minimum temperature below the frost temperature. This week 1 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.54. Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C, week 2

Title	Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 2
Alternate Title	ifd_grow_prob2
Abstract	The Probability (likelihood) of ice freeze days during the growing season. Ice Freeze Days: the number of days in the forecast period with a minimum temperature below the frost temperature. This week 2 forecasted probability is available daily from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting

Scope identification	series
Feature Attribute Names	

3.2.55. Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C, week 3

Title	Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 3
Alternate Title	ifd_grow_prob3
Abstract	The Probability (likelihood) of ice freeze days during the growing season. Ice Freeze Days: the number of days in the forecast period with a minimum temperature below the frost temperature. This week 3 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.56. Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C, week 4

Title	Probability of Ice freeze days (woody or herbaceous crops) during growing season (<-2°C), week 4
Alternate Title	ifd_grow_prob4
Abstract	The Probability (likelihood) of ice freeze days during the growing season. Ice Freeze Days: the number of days in the forecast period with a minimum temperature below the frost temperature. This week 4 forecasted probability is available weekly (Thursdays) from April 1 to October 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada

Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.57. Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 1

Title	Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 1
Alternate Title	ifd_herb_dormWK1
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period. This week 1 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.58. Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 2

Title	Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 2
Alternate Title	ifd_herb_dormWK2

Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period. This week 2 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.59. Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 3

Title	Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 3
Alternate Title	ifd_herb_dormWK3
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period. This week 3 forecasted index is available weekly (Thursday) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada

Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.60. Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 4

Title	Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 4
Alternate Title	ifd_herb_dormWK4
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period. This week 4 forecasted index is available weekly (Thursday) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring,

	especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.61. Probability of Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 1

Title	Probability of Ice freeze days (herbaceous crops) in dormant period (< -15°C), week 1
Alternate Title	ifd_herb_dorm_prob1
Abstract	The probability (likelihood) of ice freeze days for herbaceous crops during in a dormant period. The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period This week 1 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series

Feature Attribute Names	

3.2.62. Probability of Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 2

Title	Probability of Ice freeze days (herbaceous crops) in dormant period (< -15°C), week 2
Alternate Title	ifd_herb_dorm_prob2
Abstract	The probability (likelihood) of ice freeze days for herbaceous crops during in a dormant period. The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period This week 2 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.63. Probability of Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 3

Title	Probability of Ice freeze days (herbaceous crops) in dormant period (< -15°C), week 3
Alternate Title	ifd_herb_dorm_prob3

Abstract	The probability (likelihood) of ice freeze days for herbaceous crops during in a dormant period. The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period This week 3 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.64. Probability of Ice freeze days (herbaceous crops) in dormant period (<-15°C), week 4

Title	Probability of Ice freeze days (herbaceous crops) in dormant period (< -15°C), week 4
Alternate Title	ifd_herb_dorm_prob4
Abstract	The probability (likelihood) of ice freeze days for herbaceous crops during in a dormant period. The number of days in the forecast period with a minimum temperature below the frost temperature. -15°C for herbaceous crops over the dormant period This week 4 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	

Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.65. Ice freeze days (woody crops) in dormant period (<-30°C), week 1

Title	Ice freeze days (woody crops) in dormant period (<-30°C), week 1
Alternate Title	ifd_wood_dormWK1
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 1 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and

	survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.66. Ice freeze days (woody crops) in dormant period (<-30°C), week 2

Title	Ice freeze days (woody crops) in dormant period (<-30°C), week 2
Alternate Title	ifd_wood_dormWK2
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 2 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series

Feature Attribute Names	

3.2.67. Ice freeze days (woody crops) in dormant period (<-30°C), week 3

Title	Ice freeze days (woody crops) in dormant period (<-30°C), week 3
Alternate Title	ifd_wood_dormWK3
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 3 forecasted index is available weekly (Thursdays) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.68. Ice freeze days (woody crops) in dormant period (<-30°C), week 4

Title	Ice freeze days (woody crops) in dormant period (<-30°C), week 4
Alternate Title	ifd_wood_dormWK4
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 4 forecasted index is available weekly (Thursdays) from November 1 to March 31

	Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.69. Probability of Ice freeze days (woody crops) in dormant period (<-30°C), week 1

Title	Probability of Ice freeze days (woody crops) in dormant period (< -30°C), week 1
Alternate Title	ifd_wood_dorm_prob1
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 1 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season.

	However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.70. Probability of Ice freeze days (woody crops) in dormant period (<-30°C), week 2

Title	Probability of Ice freeze days (woody crops) in dormant period (< -30°C), week 2
Alternate Title	ifd_wood_dorm_prob2
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 2 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada

Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.71. Probability of Ice freeze days (woody crops) in dormant period (<-30°C), week 3

Title	Probability of Ice freeze days (woody crops) in dormant period (< -30°C), week 3
Alternate Title	ifd_wood_dorm_prob3
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 3 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.72. Probability of Ice freeze days (woody crops) in dormant period (<-30°C), week 4

Title	Probability of Ice freeze days (woody crops) in dormant period (< -30°C), week 4
Alternate Title	ifd_wood_dorm_prob1

Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -30°C for woody crops over the dormant period This week 4 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.73. Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 1

Title	Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 1
Alternate Title	ifd_herb_nogrowWK1
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season This week 1 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada

Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.74. Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 2

Title	Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 2
Alternate Title	ifd_herb_nogrowWK2
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season This week 2 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring,

	especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.75. Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 3

Title	Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 3
Alternate Title	ifd_herb_nogrowWK3
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season This week 3 forecasted index is available weekly (Thursdays) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.76. Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 4

Title	Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 4
Alternate Title	ifd_herb_nogrowWK4
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season This week 4 forecasted index is available weekly (Thursdays) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.77. Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 1

Title	Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 1
Alternate Title	ifd_herb_nogrow_prob1
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season. This week 1 forecasted probability is available daily from November 1 to March 31

	Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.78. Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 2

Title	Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 2
Alternate Title	ifd_herb_nogrow_prob2
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season. This week 2 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum,

	apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.79. Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 3

Title	Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 3
Alternate Title	ifd_herb_nogrow_prob3
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season. This week 3 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter

	season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.80. Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 4

Title	Probability of Ice freeze days (herbaceous crops) during non-growing season (<-5°C), week 4
Alternate Title	ifd_herb_nogrow_prob4
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -5°C for herbaceous crops over the non-dormant period over the non-growing season. This week 4 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series

Feature Attribute Names	

3.2.81. Ice freeze days (woody crops) during non-growing season (<-10°C), week 1

Title	Ice freeze days (woody crops) during non-growing season (<-10°C), week 1
Alternate Title	ifd_wood_nogrowWK1
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 1 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.82. Ice freeze days (woody crops) during non-growing season (<-10°C), week 2

Title	Ice freeze days (woody crops) during non-growing season (<-10°C), week 2
Alternate Title	ifd_wood_nogrowWK2
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season.

	This week 2 forecasted index is available daily from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.83. Ice freeze days (woody crops) during non-growing season (<-10°C), week 3

Title	Ice freeze days (woody crops) during non-growing season (<-10°C), week 3
Alternate Title	ifd_wood_nogrowWK3
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 3 forecasted index is available weekly (Thursdays) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum,

	apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.84. Ice freeze days (woody crops) during non-growing season (<-10°C), week 4

Title	Ice freeze days (woody crops) during non-growing season (<-10°C), week 4
Alternate Title	ifd_wood_nogrowWK4
Abstract	The number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 4 forecasted index is available weekly (Thursdays) from November 1 to March 31 Units: Days
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.

Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.85. Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 1

Title	Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 1
Alternate Title	ifd_wood_nogrow_prob1
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 1 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.86. Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 2

Title	Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 2
Alternate Title	ifd_wood_nogrow_prob2
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 2 forecasted probability is available daily from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.87. Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 3

Title	Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 3
Alternate Title	ifd_wood_nogrow_prob3
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season.

	This week 3 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry, alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

3.2.88. Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 4

Title	Probability of Ice freeze days (woody crops) during non-growing season (<-10°C), week 4
Alternate Title	ifd_wood_nogrow_prob4
Abstract	The probability (likelihood) of ice freeze days, the number of days in the forecast period with a minimum temperature below the frost temperature, -10°C for woody crops over the non-dormant period over the non-growing season. This week 4 forecasted probability is available weekly (Thursdays) from November 1 to March 31 Units: %
Purpose	
Topic Category	Climatology/Meteorology/Atmosphere/Farming
Spatial Reference Type	Grid
Spatial Resolution	0.6 decimal degrees
Geographic Description	Canada
Supplemental Information	Over-wintering crops are biennial and perennial field crops such as herbaceous plants (strawberry,

	alfalfa, timothy, and many other forage crops) and woody fruit trees (apple, pear, peach, cherry, plum, apricot, chestnut, pecan, grape, etc.). These crops normally grow and develop in the growing season and become dormant in the non-growing season. However, extreme weather and climate events such as cold waves in the growing season and ice freezing events during the winter are a major constraint for their success of production and survival in Canada. The winter survival of these plants depends largely on agrometeorological conditions from late autumn to early spring, especially ice-freezing damage during the winter season. The optimum temperature for such crops is 25°C.
Constraints	Data are subject to the Government of Canada Open Data License Agreement: https://open.canada.ca/en/open-government-licence-canada
Keywords	Thesaurus: Government of Canada Core Subject Date: February 1, 2000 Keywords: Farmlands, Crop, Agriculture, Temperature, Weather, Weather Forecasting
Scope identification	series
Feature Attribute Names	

4. CONTENT AND STRUCTURE

4.1. Feature-based application schema

Not applicable.

4.2. Feature catalogue

Not applicable.

5. REFERENCE SYSTEM

5.1. Spatial reference system

Horizontal coordinate reference system: WGS 84
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

Measure not used at this time.

6.2. Logical consistency

Measure not used at this time.

6.3. Positional accuracy

This digital geo-spatial product was interpolated from ECCC/MSC station data with unknown positional accuracy (latitude, longitude and elevation). Latitude and longitude values are given to the nearest 1/100 of a degree.

6.4. Temporal accuracy

Measure not used at this time.

6.5. Thematic accuracy

Measure not used at this time.

6.6. Lineage statement

The daily forecasts of weekly indices are generated using Environment and Climate Change Canada's Global Ensemble Prediction System (GEPS) with 20+1 ensemble members. In all cases, the probabilities are calculated at each point by counting the number of members which forecast the event in question during the forecast period and dividing this by the total number of members. These probabilities have not been calibrated.

Environment and Climate Change Canada and Agriculture and Agri-food Canada have assessed the skill level (predictability) of each forecasted extreme weather index by calculating the Heidke Skill Score (HSS) which compares the proportion of correct forecasts to a no skill random forecast.

The energy and temperature based indices were realistically forecasted over Canada. At most locations, the skill score was in excess of 70% correct.

Water (precipitation) based indices exhibited a relatively high forecast skill in western Canada at both 7 and 16- day time frames. In central and eastern Canada, the skill score drops at the 16-day timeframe. The temporal drop in skill is caused by the growth of initial errors in the model. Spatially, the difference in skill can be partially explained by the consistency of the forcing factors during the period under study (April to September). It has been shown that western Canada is influenced by the Madden-Julian Oscillation and ENSO-like forcing factors more than eastern Canada during spring through summer.

The skill of predicting the wind-based indices has significant spatial differences: the maximum daily wind speed is best forecast in western and eastern Canada, with a relatively low skill in central Canada; the number of strong wind days is more reliable in eastern and central Canada, with a low skill in western Canada. Like the water based indices, the skill in the wind based indices drops at longer time frames in the future.

Lineage Statement	Environment and Climate Change Canada generates the extreme weather indices on a global scale. Agriculture and Agri-food Canada accesses the daily datasets in netCDFformat. Each dataset is converted to a TIFF file, projected to the Web Mercator projection (EPSG 3857), and clipped to an extent encompassing Canada and the continental United States, defined by a rectangle with latitude boundaries of 24°N and 90°N and longitude boundaries of 180°W and 50°W. ArcGIS Server image services display these TIFF files using bilinear interpolation. PDF maps are generated using polygon representations of the TIFF files. Polygons boundaries follow the bilinear interpolation result displayed by the image services and are clipped to the Canadian land mass as defined by Atlas of Canada
Scope	Series

7. DATA CAPTURE

Index forecast period: WK1= week1, WK2= week2, WK3= week3, WK4= week4

Forecast Date = YYMMDD

WK1 = Start Date (Forecast Date) to End Date (WK1 Start Date + 6 Days)
WK2 = Start Date (Forecast Date + 7 Days) to End Date (WK2 Start Date + 6 Days)
WK3 = Start Date (Forecast Date + 14 Days) to End Date (WK3 Start Date + 6 Days)
WK4 = Start Date (Forecast Date + 21 Days) to End Date (WK4 Start Date + 6 Days)

8. DATA MAINTENANCE

As Needed

9. PORTRAYAL

Not applicable.

10. DATA PRODUCT DELIVERY

TIF
format name: Tag Interleaved File:
version: 6.0
specification: GeoTIFF is format extension for storing georeference and geocoding information in a TIFF 6.0 compliant raster file by tying a raster image to a known model space or map projection.
languages: eng
character set: utf8

11. METADATA

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