

Weather-Based Program Buyer's Guide



Sustainable Canadian
Agricultural Partnership

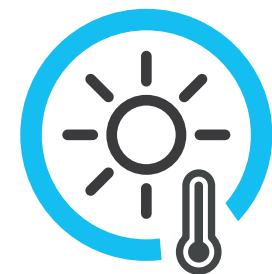


Canada

What is weather-based insurance?

SCIC's weather-based programs provide effective and customizable options to insure acres for grazing, livestock feed, intercrops or grain corn.

Weather-based insurance is when weather data from weather stations is used to model relative production loss for programs. These programs offer simplified, low effort, insurance coverage. However, weather-based coverage does not directly reflect the production loss on each operation. There is some underlying 'basis-risk' (the difference between the estimated production loss from the weather data at the weather station, and the actual production loss) for producers.



Forage Rainfall Insurance Program
(automatic annual renewal)

NEW

Mixed Forage Rainfall Insurance Program
(requires annual renewal)

NEW

Intercrop Rainfall Insurance Program
(requires annual renewal)

Corn Heat Unit Insurance Program
(requires annual renewal)

Corn Rainfall Insurance Program
(requires annual renewal)

What coverage is available?

Forage Rainfall Insurance Program (FRIP)

FRIP is available on native and tame hay or grazing acres. It offers protection for pasture and hayland if seasonal precipitation is below the long-term average. Spot-loss fire coverage is included, providing compensation for acres lost to wildfire throughout the year.

NEW

Mixed Forage Rainfall Insurance Program

Protects any forage feed crop not currently covered under weather-based programs, including greenfeed and silage, if seasonal precipitation is below normal.

NEW

Intercrop Rainfall Insurance Program

Protects intercrops if seasonal precipitation is below normal. An establishment benefit is offered with this program.

Corn Heat Unit Insurance Program

Insures against a lack of corn heat units for corn acres over the growing season. This program provides a risk management option to silage, grazing and grain corn producers.

Corn Rainfall Insurance Program

Insures against a lack of moisture for corn acres over the growing season. It provides a risk management option to silage, grazing and grain corn producers.

Why use weather-based Insurance?

Weather-based programs insure against the most significant perils impacting production; lack of precipitation or lack of heat for corn.

Each program has options, allowing producers to tailor coverage for their risk management needs. Traditional Forage Crop Insurance is not available for crops like pasture, mixed forage and forage corn. For other crops, like hay and greenfeed, the traditional Crop Insurance options require yield reporting and producers need to notify their local SCIC office before putting the acres to a use other than baling.

Weather-based programs do not require yields or weather information to be reported to SCIC but they do come with basis risk. Claims are automatically calculated based strictly upon verified weather information.

Participating in weather-based insurance

To get started:

- 1 Submit an SCIC Application
- 2 Weather-based Program Endorsement
- 3 Review Premiums & Select Program Options
- 4 Claims

Weather stations

An additional 38 weather stations were added to supplement the previous 186 stations. Now, 99% of insurable land is located within 30 kilometres of at least one weather station.

It is important to select stations which reflect weather patterns of insured land locations. Producers can select one weather station, within 100 kilometers, for each insured land location.

Premiums are calculated independently for each weather station based upon historic precipitation and the likelihood of a payment. The more often a station pays, the higher the premium cost.

Historical payment information is available back to 2003 for FRIP, and back to 2019 for Corn Rainfall and Corn Heat Unit Insurance, at scic.ca/resources/statistics.



Weighting Options

Weighting Options are offered for the precipitation programs; Forage Rainfall, Mixed Forage Rainfall, Intercrop Rainfall and Corn Rainfall.

This provides a choice on which months' precipitation contributes to the total payment calculation. Producers can select different weighting options for each insured land location. For example: Tame forage in the black soil zone may benefit from moisture throughout the summer, where native grass in the brown soil may not benefit from July moisture.

Land location, forage species and precipitation requirements for production should be considered when selecting weighting options.

Forage Rainfall Insurance Program

OPTION	Percentage of Precipitation			
	APRIL	MAY	JUNE	JULY
1	30	30	30	10
2	10	40	40	10
3	10	30	30	30
4	20	40	40	0

Corn, Intercrop & Mixed Forage Rainfall Insurance Programs

OPTION	Percentage of Precipitation			
	MAY	JUNE	JULY	AUGUST
1	20	40	40	0
2	15	35	35	15
3	0	20	40	40

When the total precipitation is aggregated throughout these months, the total for each month is compared to the normal at the selected weather station to calculate the monthly percent of normal. Each monthly percent of normal is cumulated into the total percent of normal, with each month contributing to the total according to the selected weighting option.

Actual
(mm)

10.6

÷

Long Term
Normal
(mm)

24.7

=

Percentage
of Normal

42.9

×

Monthly
Weighting
(%)

20

=

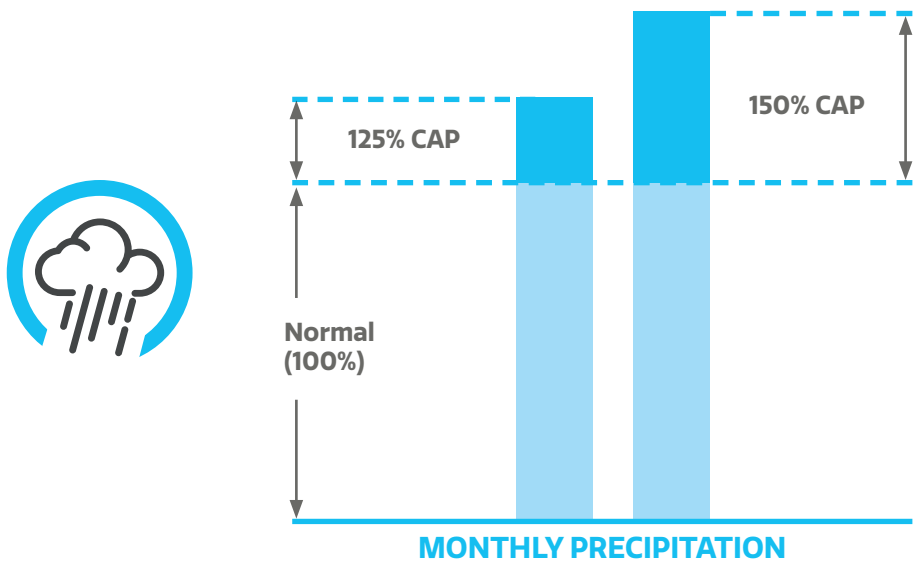
Monthly
Weighted
Percent of
Normal

8.6

Precipitation Cap

Precipitation caps are in place for precipitation programs to recognize timely precipitation is as important as the total amount of precipitation.

Producers can select either a 125% or 150% cap for each insured land location. Cappings are in place to prevent one month from limiting a producer’s payment. The 150% option is available to reduce premium costs, but reduces likelihood of triggering a payment.



Example:

Actual (mm)		Long Term Normal (mm)		Percentage of Normal		Monthly Weighting (%)		Monthly Weighted Percent of Normal
40	÷	25	=	1.60	×	20	=	32
		150 CAP		1.50		20		30
		125 CAP		1.25		20		25

Coverage Levels

There are ranges of coverage levels, depending on the program, which allow producers to tailor the program based on their needs.

Forage Rainfall Insurance Program (FRIP)

FRIP offers three coverage levels (low, medium, high). The value attributed to these coverage levels varies by soil zone (brown, dark brown and black) and insured crop-type (tame forage, native forage and mixed forage). Coverage by crop-type and soil zone is available at: <https://www.scic.ca/resources/maps/forage-rainfall-insurance-program-coverages>

COVERAGE	Low	Medium	High
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Mixed Forage Rainfall Insurance Program

COVERAGE	\$50	\$100	\$200	\$300
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Intercrop Rainfall Insurance Program

COVERAGE	\$200	\$250	\$300	\$350
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Corn Rainfall Insurance Program*

COVERAGE	\$150	\$250	\$350
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Corn Heat Unit Insurance Program*

COVERAGE	\$150	\$250	\$350
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* If selecting coverage under both Corn Rainfall and Corn Heat Unit programs, your coverage level for each program is \$175/acre independently.

Claims

Claims are automatically calculated based strictly upon selected options and verified weather station data. All weather data is verified by a third party (independent of SCIC) which uses procedures approved by an accredited meteorologist.

All precipitation programs (Forage Rainfall, Mixed Forage Rainfall, Intercrop Rainfall and Corn Rainfall) trigger claims when the precipitation at the selected weather station is below 80 percent of normal. To recognize extreme heat reduces the amount of plant available moisture, one millimetre of precipitation is deducted from the monthly accumulation for each day the maximum temperature reaches or exceeds 31°C.

Forage Rainfall Insurance Program (FRIP)

For each percentage point below 80 per cent of precipitation, 2.5 per cent of liability is paid. A claim calculation example is available at [Forage Rainfall Claim Calculation](#).

Example:

Producer selects the following:



Assiniboia	Long Term Normal (mm)	Actual (mm)	Percentage of Normal	Monthly Weighted	Monthly Weighted Per Cent of Normal
April	24.7	10.6	42.9	20	8.6
May	51.1	47.7	93.3	40	37.3
June	80.3	33.8	42.1	40	16.8
July	59.1	42.6	55.2	0	0.0
					Total: 62.7%

Claim Calculation:

$80\% - 62.7\% = 17.3$

$17.3 \times 2.5 = 43.3\%$ indemnity (claim)

$640 \text{ insured acres} \times \$110/\text{acre coverage} = \$70,400$

$\$70,400 \times 43.3\% = \$30,483.20$ payout

Producers net position = Payment – Premium

↓

$\$30,483.20 - \$6,860.80 = \$23,622.40$

Corn, Intercrop and Mixed Forage Rainfall Insurance Programs

The indemnity payout is graduated with a higher percentage of liability paid with decreasing precipitation. Since indemnity is triggered at <80% of normal, the lower precipitation is the higher the claim payment. Participants reach 100% of liability when precipitation falls below 32 per cent of normal.

The payment schedule is detailed at [Corn, Intercrop and Mixed Forage Rainfall Indemnity Payment Schedule | SCIC](#).

A Corn Rainfall claim calculation example is available at [Corn Rainfall Claim Calculation | SCIC](#).

An Intercrop Rainfall claim calculation example is available at [Intercrop Rainfall Claim Calculation | SCIC](#).

A Mixed Forage Rainfall claim calculation example is available at [Mixed Forage Rainfall Claim Calculation | SCIC](#).

Corn Heat Unit Insurance Program

The corn heat unit calculation is a standard North American formula modified for the specific area measuring the maturity of corn. Participants are guaranteed 95 per cent of the long-term normal Corn Heat Unit accumulation for the selected weather station.

Payments under the Corn Heat Unit Insurance Program are based on accumulated corn heat units from May 15 to October 31, or earlier when the daily minimum temperature reaches -1°C or lower, after July 1.

Premium Calculator Navigation

Premium

Premium rates are calculated for weather stations individually based on historical precipitation and temperature data along with selected options.

Weather-based program premium calculators are available at [Calculators | SCIC](#).

Historical yearly and monthly precipitation, heat unit statistics and program payments are available at [Statistics | SCIC](#).

Premium for weather-based programs is cost-shared among producers, the Province of Saskatchewan and Canada. Producers pay 40 percent of the total premium, while governments pay the remaining 60 percent.

Forage Rainfall Insurance Program

Compare premium costs for options and weather stations at: [Forage Rainfall Calculator \(scic.ca\)](#).

Enter: Legal land location (RM, Quarter, Section, Township, Range, Meridian)

Select Crop: Tame grazing, Native grazing, or Tame hay.

1. Weather Stations

- Scroll to view weather stations within 100 kms of entered land location.
- Click on the weather station name to display the Long-Term Normal Precipitation for each month.

2. View Options

- Coverage (low, medium or high), weighting and capping options for each weather station are shown with associated premiums.

Corn, Intercrop and Mixed Forage Rainfall Insurance Programs

View weather station and coverage options with premium costs for each program at:

[Corn Rainfall Calculator](#) | [Intercrop Rainfall Calculator](#) | [Mixed Rainfall Calculator](#)

Enter: Legal land location (RM, Quarter, Section, Township, Range, Meridian)

1. Weather Stations

- Scroll to view weather stations within 100 kms of entered land location.
- Click on the weather station name to display the Long-Term Normal Precipitation for each month

2. Coverage Option

- Select the coverage option which covers the risk of lost precipitation.

3. Weighting

- Select weighting that reflects the value of monthly precipitation based on:
 - soil zone insured for Corn Rainfall Insurance Program
 - soil zone and intercrop mix insured for the Intercrop Rainfall Insurance Program
 - soil zone and forage species insured for the Mixed Forage Rainfall Insurance Program

4. Capping

- Select the preferred capping option to limit excessive precipitation in the month (125% or 150% of the long term normal).

Corn Heat Unit Insurance Program

Compare premium costs for options and weather stations at: [Corn Heat Calculator \(scic.ca\)](#).

Enter: Legal land location (RM, Quarter, Section, Township, Range, Meridian)

1. Weather Stations

- Scroll to preferred weather station.
- The 30-year normal average heat units are provided in the right-most column.

2. Coverage Option

- Select the coverage option (\$150, \$175, \$250 or \$350), based upon the total coverage determined to manage the risk of lost heat units.

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For more details, call us at 1-888-935-0000 or visit scic.ca



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