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Coverage and claim details

Forage rainfall plan

The forage rainfall plan uses rainfall as an indicator of quantity and/or quality of established forage. This document describes the plan coverage options as well as provides claim calculation details.

Choosing rainfall options

You can choose to enrol in one or both of the following rainfall options:

Insufficient rainfall – Compensates growers for rainfall shortages over the growing season.

Excess rainfall – Protects growers from too much rain during the harvest period selected by the grower as the period when their first cut typically takes place.

Choosing coverage

Calculating the value of your forage

You can value your hay or intensively managed pasture between \$100 and \$640 per acre. Your improved pasture can be valued between \$25 per acre and \$160 per acre, and unimproved pasture between \$25 per acre and \$40 per acre. Your Agricorp representative will work with you to complete this calculation.

Determining your selected coverage

For the insufficient rainfall coverage option, you can select between \$2,000 and the total value of your hay and pasture. For the excess rainfall option, you can select between \$2,000 and the total value of your hay fields (pasture does not qualify). If you are in both options, your selected coverage for hay must be the same. To change your existing coverage, contact Agricorp.

Choosing rainfall collection site(s)

Rainfall is collected in 0.2mm increments by a third party. You may select up to three sites in the geographical township where you produce forage, or in an adjacent geographical township. If there are no rainfall collection sites in either of those locations, you may select the site closest to your forage production. Forage claims are calculated for each rainfall collection site you select based on your chosen coverage allocation by site. Your chosen allocations for your rainfall collection site(s) must add up to 100%. Your selected site(s) will be used for both insufficient and excess rainfall coverage options if you're enrolled in both. To change your existing rainfall collection site, contact Agricorp.

Insufficient rainfall

Understanding coverage options

There are four options to choose from for calculating a claim payment under the insufficient rainfall coverage option:

Option	Description
Base	Rainfall is weighted equally for May, June, July and August. If total rainfall for the four months is less than 85%, a claim will be paid, regardless of when the deficit occurred.
Monthly rainfall weighting	The monthly rainfall surplus or deficit is weighted at: <ul style="list-style-type: none">• 130% for May• 120% for June• 80% for July• 70% for August
Bi-monthly	Rainfall is weighted equally and the season is broken up into two claim periods, so rainfall in one claim period is not offset by rainfall in the other. The first claim period is May and June and uses 60% of your selected coverage. The second claim period is July and August and uses 40% of your selected coverage.
Three-month	Rainfall is weighted equally for May, June and July. August rainfall is not used.

Insufficient rainfall claims

Insufficient rainfall claims are triggered if total rainfall over the claim period is less than 85 per cent of the long-term average rainfall. For information about how claims are calculated, see the forage rainfall How it works page.

Claim formula

Depending on the percent of rainfall received, the following formulas will be used to calculate claim payments:

% of long-term average rainfall	Claim formula
Over 85% rainfall	No claim
80% - 85% rainfall	$(85\% - \text{percent rainfall}) \times \text{selected coverage} \times \text{price index}$
Under 80% rainfall*	$[5\% + (80\% - \text{percent rainfall}) \times 1.5] \times \text{selected coverage} \times \text{price index}$

*Rainfall deficits less than 80% of the long-term average are factored at 1.5 to reflect increased forage yield losses below this level. An additional 5% is added to represent the yield loss from 85%-80%.

Factors used in claim calculations

The amount of the claim depends on the amount of selected coverage and the following factors:

- Capped rainfall
- Weighted rainfall (monthly weighting option only)
- Percent rainfall
- Price index

The table below shows sample rainfall data for illustrative purposes only and will be referred to in examples throughout the insufficient rainfall claims section of this information sheet.

Sample rainfall data (for illustrative purposes)

Month	Long term average rainfall (mm)	Actual rainfall (mm)
May	72	42
June	81	35
July	82	84
August	84	80
Total	319	241

Rainfall caps have been applied to the sample data.

Capped rainfall

Agricorp excludes days with minimal rainfall to recognize small amounts of rainfall lost to evaporation. Days with less than 1mm of rainfall will be counted as 0mm. Agricorp also applies daily and monthly rainfall caps to recognize the limited benefit of large amounts of rain. A daily cap of 50mm and monthly cap of 125 per cent of the monthly historical average are applied to recognize the limited benefit of large amounts of rain. The monthly cap can be calculated by multiplying the long-term average rainfall by 125 per cent. For example, if the long-term average rainfall for May is 72mm, the monthly cap would be 90mm ($72mm \times 1.25 = 90mm$).

Weighted rainfall for monthly weighting option only

The rainfall surplus or deficit for each month is weighted to place more value on rainfall in earlier months. The following weighting is used: May - 130% (1.3), June - 120% (1.2), July - 80% (0.8), August - 70% (0.7). The lesser of the monthly capped rainfall or the weighted rainfall is used for the claim calculation.

The weighting calculation is below:

$$[(\text{actual rainfall}^* - \text{historical rainfall}) \times \text{monthly weight}] + \text{historical rainfall}$$

Using the sample rainfall data on the previous page, the weighted rainfall is calculated as follows:

<p><i>May</i></p> $= (42\text{mm} - 72\text{mm}) \times 1.3 + 72\text{mm}$ $= 33\text{mm}$	<p><i>June</i></p> $= (35\text{mm} - 81\text{mm}) \times 1.2 + 81\text{mm}$ $= 25.8\text{mm}$
<p><i>July</i></p> $= (84\text{mm} - 82\text{mm}) \times 0.8 + 82\text{mm}$ $= 83.6\text{mm}$	<p><i>August</i></p> $= (80\text{mm} - 84\text{mm}) \times 0.7 + 84\text{mm}$ $= 81.2\text{mm}$

Percent rainfall

After necessary caps are applied to monthly rainfall, percent rainfall can be calculated to determine whether or not a claim will be triggered.

The following examples show the calculation of the percent rainfall by option using sample rainfall data.

Option	% of rainfall calculation with examples using sample data
Base	$= (May + June + July + August) / historical \times 100$ $= (42\text{mm} + 35\text{mm} + 84\text{mm} + 80\text{mm}) / 319\text{mm} \times 100$ $= 241\text{mm} / 319\text{mm} \times 100$ $= 75.55\% \text{ rainfall}$
Monthly Rainfall Weighting	$= (weighted\ May + weighted\ June + weighted\ July + weighted\ August) / historical \times 100$ $= (33\text{mm} + 25.8\text{mm} + 83.6\text{mm} + 81.2\text{mm}) / 319\text{mm} \times 100$ $= 223.6\text{mm} / 319\text{mm} \times 100$ $= 70.09\% \text{ rainfall}$
Bi-monthly	$= (May + June) / (historic\ May + historic\ June) \times 100$ $= (42\text{mm} + 35\text{mm}) / (72\text{mm} + 81\text{mm}) \times 100$ $= 77\text{mm} / 153\text{mm} \times 100$ $= 50.33\% \text{ rainfall}$ <hr/> $= (July + August) / (historic\ July + historic\ August) \times 100$ $= (84\text{mm} + 80\text{mm}) / (82\text{mm} + 84\text{mm}) \times 100$ $= 164\text{mm} / 166\text{mm} \times 100$ $= 98.80\% \text{ rainfall}$
Three-month	$= (May + June + July) / (historical\ May + historical\ June + historical\ July) \times 100$ $= (42\text{mm} + 35\text{mm} + 84\text{mm}) / (72\text{mm} + 81\text{mm} + 82\text{mm}) \times 100$ $= 161\text{mm} / 235\text{mm} \times 100$ $= 68.51\% \text{ rainfall}$

Price index

The value of a claim depends on percentage of rainfall received. The price index increases as the percent rainfall decreases to account for the higher cost of purchasing replacement forage during rainfall shortages.

The following table is used to determine price index based on percent of rainfall when calculating a claim. For example, if there was 75.55% rainfall for the base option, the price index used would be 1.1.

% of rainfall	Price index
80% up to 85%	1.0
75% up to 80%	1.1
70% up to 75%	1.2
60% up to 70%	1.3
55% up to 60%	1.4
50% up to 55%	1.5
Less than 50%	1.6

Insufficient rainfall claim examples

The following are example claim calculations using the sample rainfall data and \$20,000 selected coverage.

Option	Claim calculation
Base	$= [5\% + (80\% - 75.55\%) \times 1.5] \times \$20,000 \times 1.1$ $= \$2,568.50$
Monthly rainfall weighting	$= [5\% + (80\% - 70.09\%) \times 1.5] \times \$20,000 \times 1.2$ $= \$4,767.60$
Bi-monthly Drought Calculation	<i>May – June (60% of selected coverage)</i> $= 60\% \times [5\% + (80\% - 50.33\%) \times 1.5] \times \$20,000 \times 1.5$ $= \$8,910.90$
	<i>July-August (40% of selected coverage)</i> No claim triggered (98.8% rainfall)
	Total Bi-monthly claim = $\$8,910.90 + \$0.00 = \$8,910.90$
Three-month	$= [5\% + (80\% - 68.51\%) \times 1.5] \times \$20,000 \times 1.3$ $= \$5,781.10$

Excess rainfall

Choosing a harvest period for excess rainfall

Growers who select the excess rainfall coverage option must choose a 10-day harvest period based on when they typically harvest their first cut of hay. There are five harvest periods available:

May 22-31	June 1-10	June 11-20	June 21-30	July 1 - 10
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Choosing a rainfall threshold

If you chose the excess rainfall coverage option, you must also select either a 5mm or 7mm rainfall threshold.

Excess rainfall claims

If you do not have any consecutive five-day windows in your selected harvest period with less rainfall than your chosen rainfall threshold (either 5mm or 7mm), a claim will be paid. Claims are calculated by multiplying your selected coverage amount by 35 per cent.

Claim example (5 mm threshold selected)

June 1	June 2	June 3	June 4	June 5	June 6	June 7	June 8	June 9	June 10
0 mm	0 mm	0 mm	0mm	5 mm	0 mm	0 mm	0 mm	2 mm	4 mm
5 mm rain									
		5 mm rain							
			5 mm rain						
				5 mm rain					
					7 mm rain				
						6 mm rain			

A claim is payable since there are no consecutive five-day windows with less than 5mm of rainfall. If the selected coverage amount is \$10,000, the claim payable would be $\$10,000 \times 35\% = \$3,500$.

Total forage rainfall claims

The insufficient and excess rainfall options work together to protect against risks to your forage crop. You can trigger claims under both options; however combined claims cannot exceed your selected coverage.