

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) of August, 2022

### Definitions used in the forecast and bulletin:
















Term	Meaning	
Dekad	10 day rainfall measuring period	
Rain Day	A day with 1.0 mm or more of rainfall amount	
Wet Day	A day with 10.0 mm or more rainfall amount	
Extremely Wet Day	A day with 25.0 mm or more of rainfall amount	
Normal Rainfall	Between 75% and 125% of the average	
Below Normal Rainfall	Rainfall below 75% of the average	
Above Normal Rainfall	Rainfall in excess of 125% of the average	
Much Below Normal Rainfall	Rainfall below 50% of the average	
Much Above Normal Rainfall	Rainfall above 150% of the average	
Scanty Rainfall	Less than 1 mm	
Moderate Rainfall	1-10 mm	
Heavy Rainfall	10-50 mm	
Very Heavy Rainfall	Greater than 50 mm	
Probability of 1-30 %	Low Chance	
Probability of 30-70 %	Moderate Chance	
Probability greater than 70 %	High Chance	
Term	Amount of Rain	Type of day
Scanty Rainfall	Less than 1 mm	Relatively dry day
Moderate Rainfall	1-10 mm	Relatively wet day
Heavy Rainfall	10-50 mm	Wet day
Very Heavy Rainfall	Greater than 50 mm	Excessively wet day

## Weather Bulletin for Farmers and Livestock Producers of Trinidad and Tobago for the 15-day period (11<sup>th</sup> – 25<sup>th</sup>) of August 2022.

Date	Weather	Temperature	Heat Real Feel	Day Moisture (Relative) (Humidity)	Wind









**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

11 <sup>th</sup>	 65% chance of showers	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 32.0/24.0	Feels like 41-46°C	71-83%	 Weak easterly 10 km/h Gust 15 km/h
12 <sup>th</sup>	 40% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with one or two showers	<b>Warm</b>  Max/Min Temperatures °C 32.5/24.0	Feels like 40-46°C	70-79%	 Moderate easterly 20 km/h Gust 30 km/h
13 <sup>th</sup>	 65% chance of showers	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 33.0/24.5	Feels like 40-44°C	68-72%	 Weak south-easterly 15 km/h Gust 25 km/h
14 <sup>th</sup>	 80% chance of showers	10.0 to 25.0 mm of rainfall is possible	Cloudy with light/mod occasional heavy showers	<b>Warm</b>  Max/Min Temperatures °C 29.0/24.5	Feels like 30-37°C	80-89%	 Weak south-easterly 15 km/h Gust 25 km/h
15 <sup>th</sup>	 80% chance of rainfall	10.0 to 35.0 mm of rainfall	Cloudy with light/mod occasional heavy	<b>Warm</b> 	Feels like		 Weak south-easterly 15 km/h















**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

	of showers	is possible	showers	Max/Min Temperatures °C 30.0/24.5	30- 37°C	75-84%	Gust 25 km/h
16 <sup>th</sup>	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 33.0/24.5	Feels like 39- 41°C	59-65%	☀☀☀ Weak easterly 10 km/h Gust 15 km/h
17 <sup>th</sup>	 60% chance of showers	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 39- 44°C	59-72%	☀☀☀ Weak easterly 10 km/h Gust 15 km/h
18 <sup>th</sup>	 40% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with one or two showers	<b>Warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 39- 45°C	58-73%	☀☀☀ Moderate easterly 20 km/h Gust 30 km/h
19 <sup>th</sup>	 60% chance of showers	1.0 to 2.0 mm of rainfall is possible	Partly cloudy with one or two showers	<b>Warm</b>  Max/Min Temperatures °C 32.0/24.5	Feels like 41- 45°C	71-79%	☀☀☀ Moderate easterly 20 km/h Gust 30 km/h
				<b>Warm</b>			☀☀☀



**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

20 <sup>th</sup>	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with one or two showers	 Max/Min Temperatures °C 32.5/24.5	Feels like 42-48°C	74-84%	Moderate north-easterly 20 km/h Gust 30 km/h
21 <sup>st</sup>	 65% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 33.0/24.5	Feels like 40-47°C	70-78%	 Moderate north-easterly 20 km/h Gust 30 km/h
22 <sup>nd</sup>	 70% chance of showers	10.0 to 15.0 mm of rainfall is possible	Cloudy with light/mod occasional heavy showers	<b>Warm</b>  Max/Min Temperatures °C 32.0/24.0	Feels like 30-37°C	74-80%	 Moderate easterly 20 km/h Gust 30 km/h
23 <sup>rd</sup>	 80% chance of showers	10.0 to 30.0 mm of rainfall is possible	Cloudy with light/mod occasional heavy showers	<b>Warm</b>  Max/Min Temperatures °C 29.0/24.0	Feels like 30-35°C	81-88%	 Weak south-easterly 15 km/h Gust 25 km/h
24 <sup>th</sup>	 80% chance of showers	10.0 to 30.0 mm of rainfall is possible	Cloudy with light/mod occasional heavy showers	<b>Warm</b>  Max/Min Temperatures °C 29.0/24.0	Feels like 30-35°C	81-88%	 Weak south-easterly 15 km/h

**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

	80% chance of showers	is possible	heavy showers	Max/Min Temperatures °C 29.0/25.0	like 29-35°C	80-88%	Gust 25 km/h
25 <sup>th</sup>	 60% chance of showers	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b>  Max/Min Temperatures °C 32.0/24.0	Feels like 35-40°C	60-75%	☄ Weak easterly 10 km/h Gust 15 km/h

Trinidad Rainfall Forecast for the 15-Day period of August (11<sup>th</sup> -25<sup>th</sup>) 2022.

**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

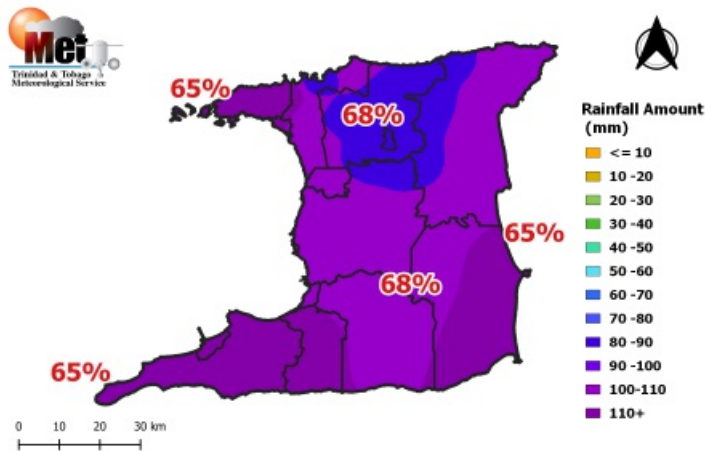


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11<sup>th</sup>-25<sup>th</sup>) August 2022 and percentage probability of occurrence.

**Eastern, and North-Eastern areas**

Moderate chance (68%) of mean daily rainfall up to 9.6 mm.

**South-Eastern areas**

Moderate chance (65%) of mean daily rainfall up to 13.5 mm.

**Southern areas**

Moderate chance (68%) of mean daily rainfall up to 12.7 mm.

**South-Western areas**

Moderate chance (65%) of mean daily rainfall up to 13.0 mm.

**Central, West-Central, and inland areas**

Moderate chance (68%) of mean daily rainfall up to 9.6 mm.

**Northern, North-Western areas**

Moderate chance (65%) of mean daily rainfall up to 11.0 mm.

**Tobago Rainfall Forecast for the 15-Day period of August (11<sup>th</sup> - 25<sup>th</sup>) 2022**

**Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

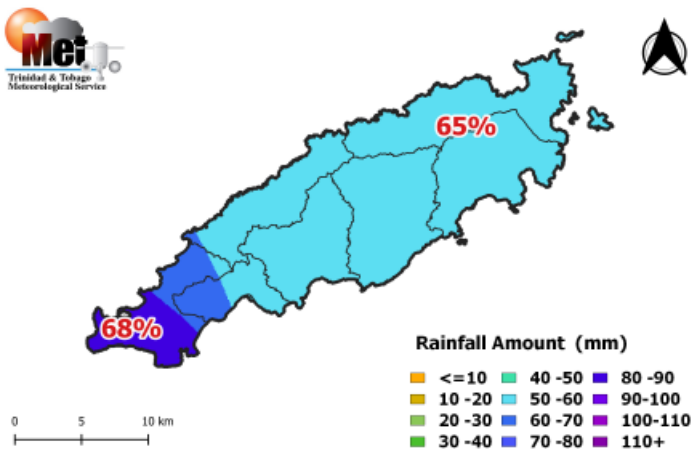


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period (11-25<sup>th</sup>) August 2022 and percentage probability of occurrence.

#### North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 5.0 mm.

#### South-Western areas

Moderate chance (68%) of mean daily rainfall up to 5.7 mm.

#### **Sun and Moon Positions in the Sky August (11<sup>th</sup>-25<sup>th</sup>) 2022.**

The sun is presently at 15.5 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from August 11<sup>th</sup> will be 12 hours and 30 minutes, decreasing slightly to 12 hours and 23 minutes by 25<sup>th</sup> August 2022. According to the moon's phases, the 12<sup>th</sup> -13<sup>th</sup> and 21<sup>st</sup>-23<sup>rd</sup> of August are good days for planting aboveground crops while the 12<sup>th</sup>-13<sup>th</sup> and 16<sup>th</sup>-18<sup>th</sup> are good days for planting belowground crops. However, the 11<sup>th</sup> (Full Moon Phase), 14<sup>th</sup>-15<sup>th</sup>, 19<sup>th</sup> (Third Quarter Phase)-20<sup>th</sup> and 24<sup>th</sup>-25<sup>th</sup> of August 2022, are poor planting days. These days should be used for removing weeds, clearing land and ploughing fields.

#### **Highlighted Possible Impacts on Agriculture:**

During this second 15-day forecast period of (11<sup>th</sup> to 25<sup>th</sup>) August 2022, again expect similarly wetter conditions to occur as compared to the last 15-day forecast periods. There is a low probability (28%) chance for crop irrigation measures to take place owing to already moist soils and expected rains during this forecast period. However, livestock should be provided with fresh cool water during this forecast period to rehydrate particularly during warmer and drier periods. On drier days, there is a moderate probability (40%) chance of heat stress in young livestock, newly germinated and

#### Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

transplanted seedlings onto fields due to infrequent cloud cover. However, there is a moderate probability (68%) chance for strong wind events that may cause damage to crops and farm infrastructure. There is also a high probability (85%) chance for fungi spread, root and/or fruit rot, insect pests and warm weather diseases to develop in crop beds. River levels will remain at generally low/moderate levels during this forecast period but will become high at times during the 14<sup>th</sup>-15<sup>th</sup> and 22<sup>nd</sup>-24<sup>th</sup> of August. There is a high risk of flooding events in low-lying areas and areas that generally floods. Farmers should be proactive and store seeds, animals and machinery in elevated locations to minimize losses in the event of flooding.

### Weather Assessment for the period August (1<sup>st</sup>-9<sup>th</sup>) 2022

Wet days occurred on the 1<sup>st</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup> and 9<sup>th</sup> of August over Trinidad and Tobago. The moderate to high rainfall amounts that occurred across the islands allowed for moderate to high moisture content in soils, moderate to high river levels and flash/riverine flooding events. Crop growth and development rates in general across agricultural lands and vegetation growth in pastures had increased significantly. The rainfall totals maps for the period, 1<sup>st</sup> to 9<sup>th</sup> of August for Trinidad and Tobago are located below in figure 1 and figure 2.

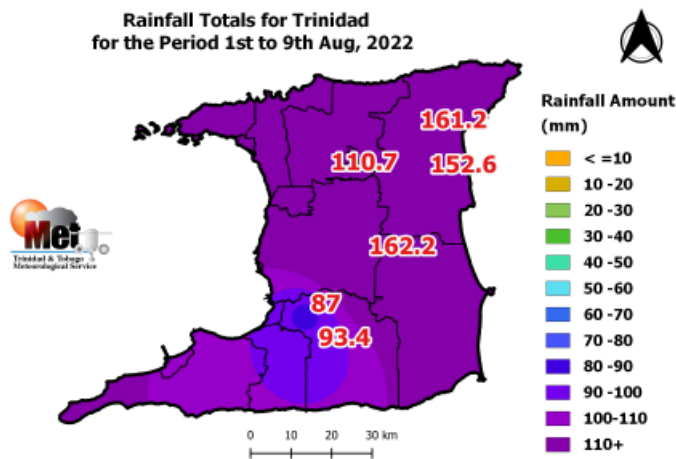


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> of August 2022.

#### Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.



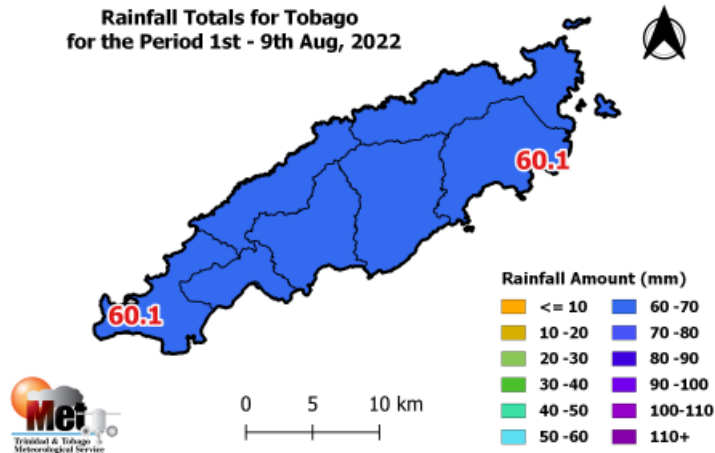


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> of August 2022.

#### Temperatures:

Temperatures were cool to warm during the period 1<sup>st</sup> to 9<sup>th</sup> August, as the minimum nighttime temperature fell to 22.0 °C and the maximum daytime temperature rose to 33.9 °C, in Trinidad.

Similarly, Tobago temperatures were cool to warm during the period 1<sup>st</sup> to 9<sup>th</sup> August, with the minimum nighttime temperature falling to 23.3 °C and the maximum daytime temperature rising to 32.5 °C.

#### Summary

Moderate to high rainfall amounts are expected on five of the fifteen days.

Five wet days with rainfall amounts ranging between 10.0 mm and 35.0 mm are expected on the 14<sup>th</sup>-15<sup>th</sup> and 22<sup>nd</sup>-24<sup>th</sup> of August while, ten relatively wet days with rainfall amounts ranging between 1.0 mm and 8.0 mm are expected on the 11<sup>th</sup>-13<sup>th</sup>, 16<sup>th</sup>-21<sup>st</sup> and 25<sup>th</sup> of August 2022.

#### Trinidad:

Five wet days with rainfall amounts ranging between 10.0 mm and 35.0 mm are expected on the 14<sup>th</sup>-15<sup>th</sup> and 22<sup>nd</sup>-24<sup>th</sup> of August while, ten relatively wet days with rainfall amounts ranging between 1.0 mm and 8.0 mm are expected on the 11<sup>th</sup>-13<sup>th</sup>, 16<sup>th</sup>-21<sup>st</sup> and 25<sup>th</sup> of August 2022. The daily rainfall totals are forecast to range between 1.0 mm to 35.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 75.0 mm and 135.0 mm. The heaviest rainfall events will mostly occur across the southeastern, southwestern and northwestern parts of Trinidad. There is a high (90%) probability that flash and riverine flooding will occur during/after heavy rainfall events.

#### Tobago:

#### Disclaimer

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.

Tobago will experience less rainfall than Trinidad. Wet days with rainfall amounts ranging between 10.0 mm and 35.0 mm are expected on the 14<sup>th</sup>-15<sup>th</sup> and 22<sup>nd</sup>-24<sup>th</sup> of August while, ten relatively wet days with rainfall amounts ranging between 1.0 mm and 8.0 mm are expected on the 11<sup>th</sup>-13<sup>th</sup>, 16<sup>th</sup>-21<sup>st</sup> and 25<sup>th</sup> of August 2022. The daily rainfall totals are forecast to range between 1.0 mm to 35.0 mm across different farmlands particularly southwestern areas, with fifteen-day rainfall totals ranging between 50.0 mm and 75.0 mm.

#### **Temperatures & Winds:**

The maximum temperatures are expected to remain warm, with temperatures ranging between 29.0°C to 33.0°C throughout the period. However, temperatures are expected to have a real-feel or feels-like between 30.0°C to 48.0°C on most days. The minimum temperatures will range between 24.0°C to 25.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

A mixture of moderate easterly and weak south-easterly winds of average speeds of 20 km/h and 10 km/h are expected, with gusts of 25-30 km/h at times and with higher gust events in heavy showers. Moderate to high rainfall totals, mostly low to moderate wind speeds, warm days and warm feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 1.4 to 8.0 millimeters per day.

#### **Moisture levels:**

Over the fifteen-day period across Trinidad and Tobago, moisture levels are expected to be moderate to high, with average daytime relative humidity values in the upper-50s to lower-90s, in terms of percentage.

#### **Disclaimer**

This information is provided with the understanding that the Trinidad and Tobago Meteorological Service makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the forecast or outlook contained in this document. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.