

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) of August, 2021

### 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 2021.

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

### Disclaimer













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11 <sup>th</sup>	 65% chance of showers	1.0 to 15.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	<b>Very Warm</b>  Max Temp 33.0°C	Feels like 40-47°C	65-79%	 Moderate easterly 20 km/h Gust 30 km/h
12 <sup>th</sup>	 45% chance of light/moderate showers	0.0 to 3.0 mm of rainfall is possible	Few cloudy patches with a shower or two	<b>Hot</b>  Max Temp 34.0°C	Feels like 42-48°C	58-72%	 Moderate easterly 20 km/h Gust 30 km/h
13 <sup>th</sup>	 65% chance of showers	1.0 to 20.0 mm of rainfall possible	Partly cloudy with light to moderate/heavy showers	<b>Very Warm</b>  Max Temp 32.0°C	Feels like 35-45°C	58-67%	 Weak south-easterly 10 km/h Gust 20 km/h
14 <sup>th</sup>	 75% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 31.0°C	Feels like 32-40°C	69-79%	 Weak south-easterly 10 km/h Gust 20 km/h
		1.0 to 30.0 mm of rainfall with	Cloudy with	<b>Warm</b>			 Weak














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15 <sup>th</sup>	 80% chance of light/moderate showers	higher amounts on the east coast of Trinidad/Tobago	light to moderate/heavy showers	 Max Temp 30.0°C	Feels like 32-36°C	71-79%	south-easterly 10 km/h Gust 20 km/h
16 <sup>th</sup>	 65% chance of light/moderate showers	0.1 to 15.0 mm of rainfall is possible	Few cloudy patches with showers	<b>Very Warm</b>  Max Temp 32.0°C	Feels like 38-45°C	60-73%	 Weak south-easterly 10 km/h Gust 20 km/h
17 <sup>th</sup>	 85% chance of light/moderate showers	1.0 to 40.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 29.0°C	Feels like 32-36°C	71-86%	 Weak south-easterly 10 km/h Gust 20 km/h
18 <sup>th</sup>	 85% chance of light/moderate showers	1.0 to 40.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 29.0°C	Feels like 32-36°C	71-86%	 Weak south-easterly 10 km/h Gust 20 km/h
				<b>Very Warm</b>			 Moderate








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19 <sup>th</sup>	 55% chance of light/moderate showers	0.1 to 3.0 mm of rainfall is possible	Few cloudy patches with showers	 Max Temp 32.0°C	Feels like 38-47°C	61-75%	easterly 20 km/h Gust 30 km/h
20 <sup>th</sup>	 45% chance of light/moderate showers	0.1 to 5.0 mm of rainfall is possible	Few cloudy patches with a shower or two	<b>Very Warm</b>  Max Temp 32.0°C	Feels like 38-47°C	60-75%	 Moderate easterly 20 km/h Gust 30 km/h
21 <sup>st</sup>	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 31.0°C	Feels like 32-38°C	71-89%	 Weak south-easterly 10 km/h Gust 20 km/h
22 <sup>nd</sup>	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 31.0°C	Feels like 32-40°C	71-83%	 Weak south-easterly 10 km/h Gust 20 km/h
	 60% chance of	1.0 to 5.0 mm of	Partly cloudy to	<b>Very Warm</b>			 Moderate easterly

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23 <sup>rd</sup>	light/moderate showers	rainfall is possible	cloudy with showers	 Max Temp 32.0°C	Feels like 35-45°C	60-74%	20 km/h Gust 30 km/h
24 <sup>th</sup>	 60% chance of light/moderate showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 35-45°C	60-74%	 Moderate easterly 20 km/h Gust 30 km/h
25 <sup>th</sup>	 55% chance of light/moderate showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 35-45°C	60-74%	 Moderate easterly 20 km/h Gust 30 km/h

## Trinidad Rainfall Forecast for the 15-Day period of August (11<sup>th</sup>-25<sup>th</sup>) 2021

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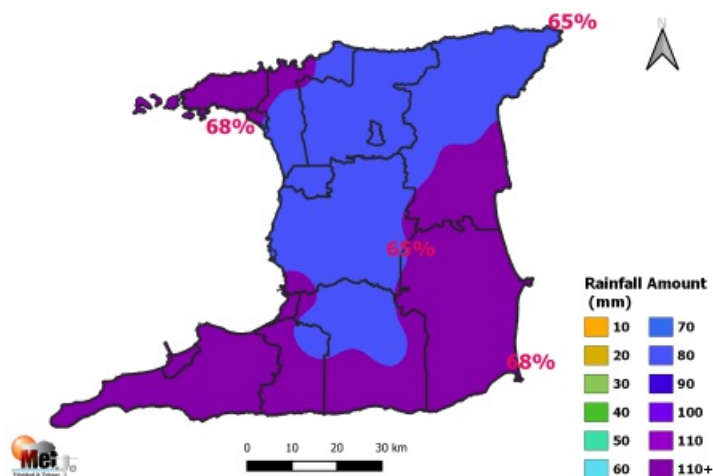


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11<sup>th</sup>-25<sup>th</sup>) August 2021 and percentage probability of occurrence.

## Eastern, and North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 10.3 mm.

## South-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 13.0 mm.

## Southern areas

Moderate chance (68%) of mean daily rainfall up to 11.9 mm.

## South-Western areas

Moderate chance (68%) of mean daily rainfall up to 11.7 mm.

## Central, West-Central, and inland areas

Moderate chance (65%) of mean daily rainfall up to 8.0 mm.

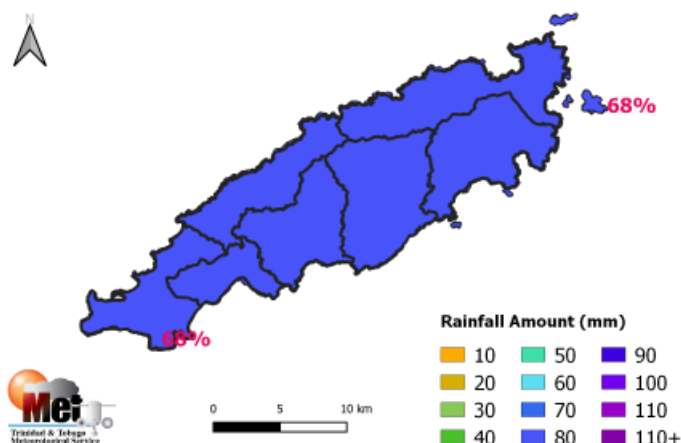
## Northern, and North-Western areas

Moderate chance (68%) of mean daily rainfall up to 10.3 mm.

## **Tobago Rainfall Forecast for the 15-Day period of August (11<sup>th</sup> – 25<sup>th</sup>) 2021**

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**Figure 2.** Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11<sup>th</sup>-25<sup>th</sup>) August 2021 and percentage probability of occurrence.

#### North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 8.0 mm.

#### South-Western areas

Moderate chance (68%) of mean daily rainfall up to 8.0 mm.

#### **Sun and Moon Positions in the Sky August (11<sup>th</sup> to 25<sup>th</sup>) 2021**

The sun is presently at the latitude 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 30 minutes, reducing steadily to 12 hours and 23 minutes by the 25<sup>th</sup> August.

According to the moon phases, days 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 18<sup>th</sup>, and 19<sup>th</sup> are good days for planting aboveground crops, while the days 22<sup>nd</sup> (Full Moon phase) and 23<sup>rd</sup> of August are good days for planting below-ground crops. However, days 15<sup>th</sup> (First Quarter phase), 16<sup>th</sup>, 17<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup>, and 25<sup>th</sup> of August are poor planting days. These days can be used for removing weeds, clearing land, and ploughing fields.

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

Farmlands in Trinidad and Tobago had received moderate to high amounts of rainfall during the last dekad (1<sup>st</sup>-9<sup>th</sup>) of August. During this second fifteen-day forecast period of August, expect slightly more wet days than relatively wet days to occur. The very few sunny breaks, light to moderate winds, and moderate to high rainfall amounts in this second fifteen-day period of August, will sustain average evaporation and average evapotranspiration rates overall.

A continuation of warm to very warm temperatures will occur, with a moderate probability (70%) chance of heat stress in

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young livestock, newly germinated and transplanted seedlings onto fields. Warm to very warm days with high feel like temperatures and frequent periods of moist crop vegetation, will increase the chances for fungi spread, fruit and/or root rot, insect pests, and warm weather diseases to develop in crop beds.

River levels and soil moisture will become moderate to high, adding to already waterlogged soils in fields and pastures. The upcoming wet days expected for this period can potentially exacerbate environmental conditions. Therefore, farmers should remain prepared with necessary flood alleviating actions such as portable water pumps, sandbags, and elevated structures on the ground to store animals, seedlings, machinery, and other equipment.

## Weather Assessment for the period August (1<sup>st</sup>-9<sup>th</sup>) 2021.

On days 1<sup>st</sup>, 3<sup>rd</sup>, 8<sup>th</sup>, and 9<sup>th</sup>, moderate to heavy rainfall amounts occurred. This resulted in flooding over some parts of northwestern areas of St. Anns, Port of Spain, and Belmont and southern areas of Penal and Debe. Saturated soils and moderate to high river levels may have hindered crop growth in agricultural lands and vegetation growth in pastures. On others days, mostly relatively wet conditions predominated over both islands. 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 as figure 1 and figure 2.

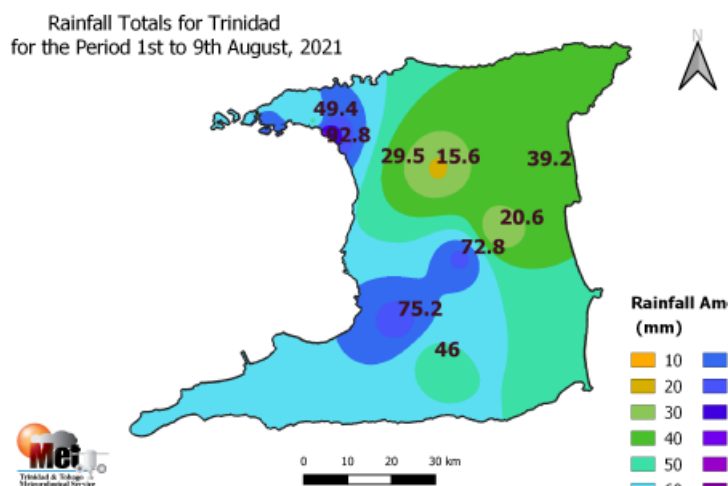


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> of August 2021.

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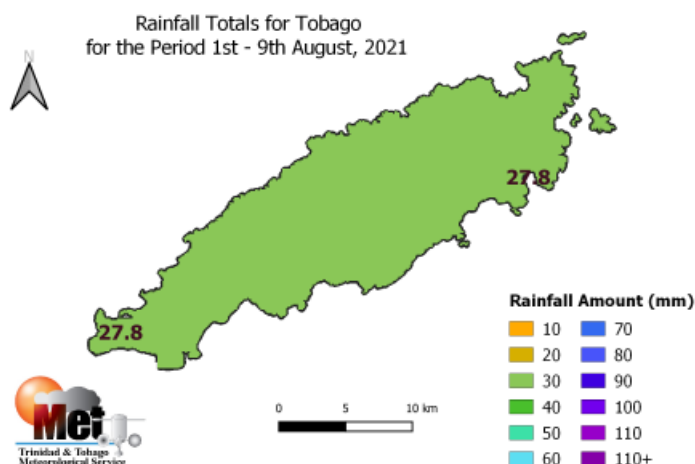


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> of August 2021.

## Temperatures:

Temperatures remained warm during the period as maximum daytime temperatures ranged between 31.8 °C and 33.7 °C, in Trinidad.

In Tobago, temperatures were warm, with maximum daytime temperatures ranging between 30.5 °C and 32.4 °C.

## Summary

Summary of Expected Weather: Moderate to high rainfall amounts are expected on nine of the fifteen days. Mostly wet days with few relatively wet days are expected for the 15-day period 11th to 25th of August 2021. Wet days with rainfall amounts 10.0 mm or greater are expected mainly on the 11th, 13th, 14th, 15th, 16th, 17th, 18th, 21st, and 22nd, particularly in northwestern, north-eastern, eastern, south-eastern, and southern parts of Trinidad and Tobago. However, relatively wet days with rainfall amounts of 5.0 mm or less are expected mainly on the 12th, 19th, 20th, 23rd, 24th, and 25th. Trinidad: Partly cloudy to cloudy spells are expected on days 11th, 13th, 14th, 15th, 16th, 17th, 18th, 21st, and 22nd will likely bring light to occasionally moderate/heavy rainfall across farmlands in the north-eastern, eastern, south-eastern, southern, and southern-western areas of Trinidad. Daily rainfall totals are forecasted to be between 1.0 mm and 40.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 80.0 mm and 125.0 mm. The heaviest and most long-lasting rains are expected over farmlands in the northeastern areas of Sangre Grande, Fishing Pond, Plum Mitán, and Vega De Oropouche; eastern areas of Biche; southeastern/southern areas of Mayaro and Moruga, southwestern areas of Point Fortin, La Brea, Penal and San Fernando; and northwestern areas of Diego Martin, Moka, St. Ann's and Port of Spain. Otherwise, on days 12th, 19th, 20th, 23rd, 24th, and 25th, expect partly cloudy conditions with few showers. Tobago: Tobago will experience similar conditions as a whole as compared to Trinidad. The island will experience wet days and relatively wet days over the 15-day period. Farmers should expect nine days of light to moderate/heavy rainfall amounts particularly on the 11th, 13th, 14th, 15th, 16th, 17th, 18th, 21st,

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and 22nd. The daily rainfall totals are forecasted to be between 1.0 mm and 40.0 mm across different farmlands. The fifteen-day rainfall totals will on average be around 80.0 mm across the island. However, on days 12th, 19th, 20th, 23rd, 24th, and 25th, expect partly cloudy conditions with few showers. Temperatures & Winds: Maximum temperatures are expected to remain warm (29.0oC) to very warm (32.5oC) throughout most of the period but can reach (34.0oC) on the 12th of August. However, temperatures are expected to have a real-feel or feels-like between 33.0oC to 47.0oC on most days. Moderate easterly to weak southeasterly winds of an average speed of 14 km/h are expected, with gusts ranging between 20 km/h to 30 km/h at times. Moderate to high rainfall totals, mostly low to moderate winds, mostly warm to very warm days and sensible feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 2.0 to 6.9 millimeters per day. Crop irrigation should be done when necessary, particularly on hot drier periods. Livestock should be provided with fresh cool water particularly on hot drier days to rehydrate. 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 low-60s to mid-70s, in terms of percentage. While during possible rainy days of 11th, 13th, 14th, 15th, 16th, 17th, 18th, 21st average daytime relative humidity values will be in the mid-70s to high-80s, in terms of percentage.

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