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Page 1 of 11

# Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second 15-Day Period (16th - 31st) of August, 2024

### 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 Rainfa	I	Rainfall below 50% of the average				
Much Above Normal Rainfa	II	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				
<b>Very Heavy Rainfall</b> Greater than 50 mm		Excessively wet day				

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F750.04.05

Page 2 of 11

# **Summary of Expected Weather:**

# Moderate to heavy amount of rainfall is possible during the fifteen days.

During the second half of August, wet days are expected on the  $16^{th}$  and  $28^{th}$  –  $30^{th}$  with the daily rainfall totals forecast up to 15.0 mm while relatively wet days of less than 10.0 mm of rainfall are expected for the remainder of the period.

Date	Weather			Temperature	Heat Real Feel	Day Moisture (Relative Humidity)	Wind
16 <sup>th</sup>	80% chance of showers	10 - 15 mm of rainfall is possible	Mostly cloudy with showers, thunderstorms	Very Warm  Max/Min  Temperatures°C  33.0/24.0	Feels like 38°C	55 - 80%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
17 <sup>th</sup>	40% chance of showers	3 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max/Min  Temperatures °C  33.0 /24.0	Feels like 38°C	55 - 75%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
18 <sup>th</sup>	40% chance of showers	5 - 10 mm of rainfall is possible	Partly to mostly cloudy with showers	Very Warm  Max/Min  Temperatures °C  33.0 /23.0	Feels like 36°C	50 - 70%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h
				Very Warm			<u>r</u>

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F750.04.05

Page 3 of 11

19 <sup>th</sup>	40% chance of showers	5-10 mm of rainfall is possible	Partly to mostly cloudy with showers	Max/Min Temperatures °C 33.0/24.0	Feels like 36°C	50 - 70%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
20 <sup>th</sup>	40% chance of showers	3 - 5 mm of rainfall is possible	Partly to mostly cloudy with showers	Warm  Max/Min  Temperatures °C 32.5/25.0	Feels like 38°C	60 - 80%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h
21 <sup>st</sup>	40% chance of showers	3 - 5 mm of rainfall is possible	Partly cloudy with showers	Warm  Max/Min  Temperatures °C  32.5/25.0	Feels like 37°C	55 - 70%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
22 <sup>nd</sup>	30% chance of showers	Less than 3 mm of rainfall is possible	Partly cloudy with few showers	Very Warm  Max/Min  Temperatures °C  33.0/25.0	Feels like 38°C	55 - 70%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
23 <sup>rd</sup>	30%	Less than 3 mm of rainfall	Partly cloudy with few showers	Hot	Feels like	55 - 70%	Moderate East- northeasterly

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Page 4 of 11

	chance of showers	is possible		Max/Min Temperatures °C 34.0/25.0	40°C		18 - 27 km/h Gust 40 km/h
24 <sup>th</sup>	40% chance of showers	Less than 3 mm of rainfall is possible	Partly cloudy with few showers	Hot  Max/Min  Temperatures °C  34.0/25.0	Feels like 40°C	55 - 70%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h
25 <sup>th</sup>	40% chance of showers	5 - 10 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Hot  Max/Min  Temperatures °C  34.0/25.0	Feels like 40°C	55 - 75%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h
26 <sup>th</sup>	40% chance of showers	5 - 10 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Very Warm  Max/Min  Temperatures °C  33.0/25.0	Feels like 38°C	55 - 75%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h
27 <sup>th</sup>	60% chance of showers	5 - 10 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Warm  Max/Min  Temperatures °C  32.5/24.0	Feels like 38°C	60 - 80%	Moderate East- northeasterly 18 - 27 km/h Gust 40 km/h

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Page 5 of 11

28 <sup>th</sup>	60% chance of showers	5 – 15 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Warm  Max/Min  Temperatures °C  32.0/24.0	Feels like 37°C	60 - 80%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
29 <sup>th</sup>	60% chance of showers	5 – 15 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Warm  Max/Min  Temperatures °C  32.0/24.0	Feels like 37°C	60 - 80%	Moderate East- southeasterly 18 - 27 km/h Gust 40 km/h
30 <sup>th</sup>	60% chance of showers	5 – 15 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Warm  Max/Min  Temperatures °C  32.0/24.0	Feels like 37°C	60 - 80%	Moderate Southeasterly 18 - 27 km/h Gust 40 km/h
31 <sup>st</sup>	60% chance of showers	5 - 10 mm of rainfall is possible	Partly to mostly cloudy with showers, thunderstorms	Very Warm  Max/Min  Temperatures °C  33.0/24.0	Feels like 40°C	60 - 80%	Moderate Southeasterly 18 - 27 km/h Gust 40 km/h

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Page 6 of 11

# Trinidad Rainfall Forecast for the 15-Day period of August (16<sup>th</sup> - 31<sup>st</sup>) 2024.

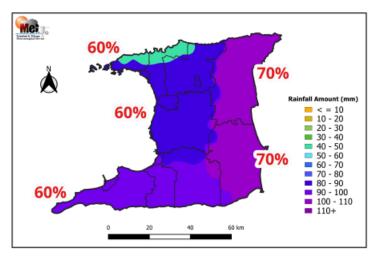


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (16<sup>th</sup> – 31<sup>st</sup>) August 2024 and percentage probability of occurrence.

### Eastern, and North-Eastern areas:

Moderate chance (70%) of mean daily rainfall up to 7.0 mm.

### **South-Eastern areas:**

Moderate chance (70%) of mean daily rainfall up to 7.0 mm.

### Southern areas

Moderate chance (60%) of mean daily rainfall up to 6.3 mm.

#### South-Western areas

Moderate chance (60%) of mean daily rainfall up to 6.3 mm.

### Central, West-Central, and inland areas

Moderate chance (60%) of mean daily rainfall up to 5.7 mm.

### Northern, North-Western areas

Moderate chance (60%) of mean daily rainfall up to 5.7 mm.

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Page 7 of 11

# Tobago Rainfall Forecast for the 15-Day period of August (16<sup>th</sup> - 31<sup>st</sup>) 2024.

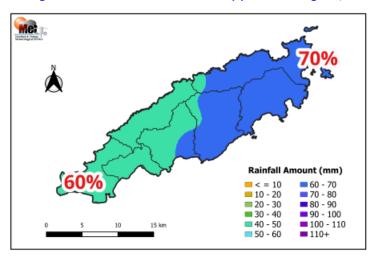


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period (16<sup>th</sup> – 31<sup>st</sup>) August 2024 and percentage probability of occurrence.

### North-Eastern areas

Moderate chance (70%) of mean daily rainfall up to 4.0 mm.

### **South-Western areas**

Moderate chance (60%) of mean daily rainfall up to 2.7 mm.

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F750.04.05

Page 8 of 11

### **Trinidad and Tobago:**

During the second half of August, wet days are expected on the  $16^{th}$  and  $28^{th}$  –  $30^{th}$  with the daily rainfall totals forecast up to 15.0 mm while relatively wet days of less than 10.0 mm of rainfall are expected for the remainder of the period.

In Trinidad, the 15-day rainfall totals range between 40.0 mm and 105.0 mm across different farmlands favouring northeastern, eastern and southeastern areas of Trinidad: Sangre Grande, Fishing Pond, Plum Mitan, Nariva and Manzanilla. In Tobago, 15-day rainfall totals range between 40.0 mm and 60.0 mm favouring eastern areas: Goodwood, Roxborough and Speyside.

### **Temperatures & Winds:**

Very warm to hot conditions are expected from  $16^{th}$  to  $31^{st}$  August. Daily maximum temperatures are expected to range between  $32.0\,^{\circ}$ C to  $34.0\,^{\circ}$ C. However, these temperatures are expected to have a real-feel or feels-like between  $36.0\,^{\circ}$ C to  $38.0\,^{\circ}$ C on most days. The minimum temperatures are expected to range between  $24.0\,^{\circ}$ C to  $25.0\,^{\circ}$ C during most nights/early mornings.

In general, mostly moderate easterly to northeasterly winds of 18–27 km/h are expected with strong gusts during heavier showers. Moderate to heavy rainfall totals combine with very warm to hot days and warm feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 5.0 to 10.0 mm per day.

#### Moisture levels:

Over the fifteen-day period across Trinidad and Tobago, expect moderate moisture levels with average daytime relative humidity values in the mid-50s to upper-70s, in terms of percentage.

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Page 9 of 11

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

Expect showery episodes alongside very warm to occasionally hot conditions during the second half of August: partly to mostly cloudy and very warm and humid conditions will be interrupted by showers that can be heavy and/or thundery at times. Near normal to slightly below normal rainfall and very warm days or hot spells may increase soil moisture loss. Scheduling of irrigation days on fields to maintain optimal soil moisture may be necessary on some days. There is a moderate (60%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is a moderate probability (40-60%) that strong winds and heavy showers may cause physical damage to young plants and flowering mature plants in exposed hilly areas. There is also a moderate probability (40%) chance for fungal spread, insect pests and warm/moist weather diseases to develop in crop beds.

# Sun and Moon Positions in the Sky August (16<sup>th</sup> - 31<sup>st</sup>) 2024.

The sun is presently at 13.5 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago on August 16 <sup>th</sup> will be 12 hours, 27 minutes and 24 seconds decreasing to 12 hours, 19 minutes, 13 seconds on August 31<sup>st</sup>.

Moon Phases: Full Moon occurs August  $19^{th}$  and Third Quarter on August  $26^{th}$ . According to the tradition of moon's phases: August  $15^{th} - 16^{th}$  are good days for planting aboveground crops; August  $19^{th} - 20^{th}$ ,  $23^{rd} - 24^{th}$  and  $28^{th} - 29^{th}$  are good days for planting belowground crops; the remaining days are poor planting days and are useful for removing weeds, clearing land and ploughing fields.

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F750.04.05

Page 10 of 11

# Weather Assessment for the period August 1st to 15th 2024.

Heavy rainfall from August  $1^{st}$  to  $15^{th}$  resulted in cumulative rainfall amounts at Crown Point, 148.2 mm and Piarco, 76.4 mm. The rainfall totals maps for the period  $1^{st}$  –  $15^{th}$  of August for Trinidad and Tobago are located below as figure 1 and figure 2.

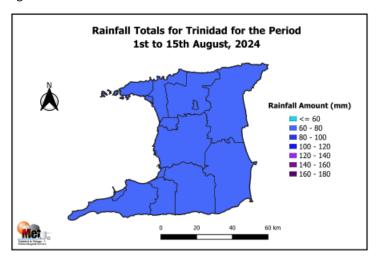


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during the period 1<sup>st</sup> to 15<sup>th</sup> of August 2024.

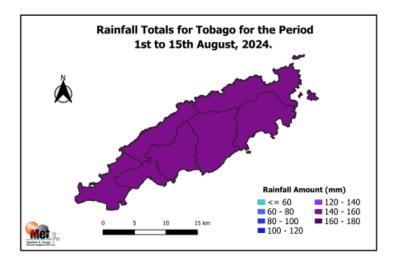


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during the period 1<sup>st</sup> to 15<sup>th</sup> of August 2024.

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Page 11 of 11

### Temperatures:

Warm and humid conditions dominated the first half of August. In Trinidad, a maximum daytime temperature of 33.7 °C was observed during the  $1^{st}$  to  $15^{th}$  August. No hot days (maximum temperatures over 34.0 °C) occurred; however, temperatures felt hotter factoring the relative humidity. The minimum night-time temperatures ranged from 23.5 °C to 25.5 °C in Trinidad.

Similarly to Trinidad, Tobago experienced warm conditions from the  $1^{st}$  to  $15^{th}$  August as the maximum daytime temperature was 32.8 °C and the minimum night-time temperature ranged from 23.5 °C to 26.7 °C.

### **Summary**

Moderate to heavy amount of rainfall is possible during the fifteen days.

During the second half of August, wet days are expected on the  $16^{th}$  and  $28^{th}$  –  $30^{th}$  with the daily rainfall totals forecast up to 15.0 mm while relatively wet days of less than 10.0 mm of rainfall are expected for the remainder of the period.

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