

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second 15-Day Period (16<sup>th</sup> - 30<sup>th</sup>) of September, 2023

### 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 (16<sup>th</sup>-30<sup>th</sup>) of September 2023.

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

### Disclaimer














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Issue date: 2023-09-15

16 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	Hot  Max/Min Temperatures °C 34.0/25.5	Feels like 34-44°C	46-65%	 Weak south-easterly 10 km/h Gust
17 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	Hot  Max/Min Temperatures °C 33.7/26.0	Feels like 34-44°C	49-65%	 Weak south-easterly 10 km/h Gust 20 km/h
18 <sup>th</sup>	 40% chance of showers	Less than 5.0 mm of rainfall is possible	Partly cloudy with a shower or two	Hot  Max/Min Temperatures °C 33.7/26.5	Feels like 34-44°C	51-70%	 Weak south-easterly 10 km/h Gust 20 km/h
19 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	Hot  Max/Min Temperatures °C 33.9/27.0	Feels like 34-44°C	50-60%	 Weak south-easterly 10 km/h Gust 20 km/h
20 <sup>th</sup>	 20% chance	Less than 0.5 mm of rainfall is possible	Partly cloudy with a	Hot  Max/Min	Feels like		 Weak easterly 10 km/h















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	of a shower	possible	shower	Temperatures °C 34.0/27.5	34-44°C	48-64%	Gust 20 km/h
21 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	<b>Hot</b>  Max/Min Temperatures °C 34.5/26.0	Feels like 34-44°C	40-65%	 Weak south-easterly 10 km/h Gust 20 km/h
22 <sup>th</sup>	 45% chance of showers	Less than 5.0 mm of rainfall is possible	Partly cloudy with showers	<b>Very warm</b>  Max/Min Temperatures °C 32.5/26.5	Feels like 33-41°C	51-64%	 Weak south-easterly 10 km/h Gust 20 km/h
23 <sup>th</sup>	 60% chance of showers	Less than 6.0 mm of rainfall is possible	Partly cloudy with showers	<b>Very Warm</b>  Max/Min Temperatures °C 33.5/25.8	Feels like 34-42°C	55-60%	 Weak south-easterly 10 km/h Gust 20 km/h
24 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	<b>Hot</b>  Max/Min Temperatures °C 33.0/26.0	Feels like 33-40°C	55-62%	 Weak easterly 10 km/h Gust 20 km/h
							




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25 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	<b>Hot</b>  Max/Min Temperatures °C 33.0/26.0	Feels like 34- 40°C	55-60%	Weak easterly  10 km/h  Gust 20 km/h
26 <sup>th</sup>	 20% chance of a shower	Less than 0.5 mm of rainfall is possible	Partly cloudy with a shower	<b>Hot</b>  Max/Min Temperatures °C 34.0/26.0	Feels like 34- 40°C	49-58%	 Weak south- easterly  10 km/h  Gust 20 km/h
27 <sup>th</sup>	 40% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy with a shower or two	<b>Very warm</b>  Max/Min Temperatures °C 33.0/27.0	Feels like 33- 42°C	57-60%	 Weak south- easterly  10 km/h  Gust 20 km/h
28 <sup>th</sup>	 60% chance of showers	Less than 6.0 mm of rainfall is possible	Partly cloudy with a shower or two	<b>Very warm</b>  Max/Min Temperatures °C 33.0/27.0	Feels like 33- 42°C	57-60%	 Weak south- easterly  10 km/h  Gust 20 km/h
29 <sup>th</sup>	 60% chance of showers	Less than 9.0 mm of rainfall is	Partly cloudy with showers	<b>Warm</b>  Max/Min	Feels like	52-70%	 Weak south- easterly  10 km/h

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		possible		Temperatures °C 32.8/28.0	32- 40°C		Gust 20 km/h
30 <sup>th</sup>	 40% chance of showers	Less than 3.0 mm of rainfall is possible	Partly cloudy with showers	Warm  Max/Min Temperatures °C 33.0/27.0	Feels like 33- 45°C	52-68%	 Weak south- easterly 10 km/h Gust 20 km/h

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Issue date: 2023-09-15

Trinidad Rainfall Forecast for the 15-Day period of September (16<sup>th</sup>–30<sup>th</sup>) 2023.

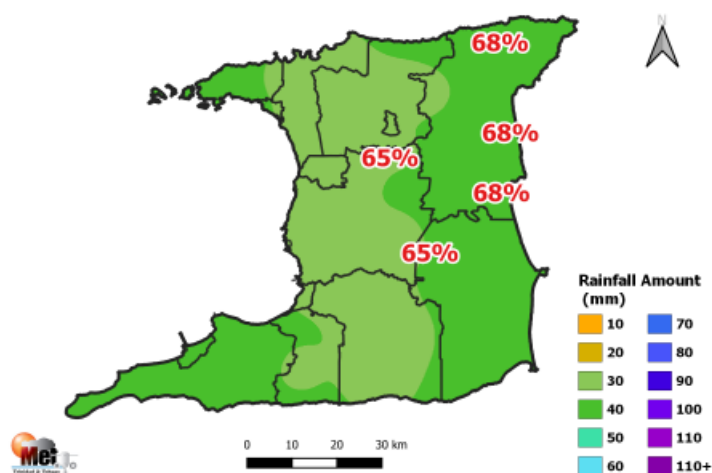


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (16<sup>th</sup>–30<sup>th</sup>) September 2023 and percentage probability of occurrence.

### Eastern, and North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 3.8 mm.

### South-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 4.0 mm.

### Southern areas

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Moderate chance (65%) of mean daily rainfall up to 3.6 mm.

## South-Western areas

Moderate chance (68%) of mean daily rainfall up to 3.5 mm.

## Central, West-Central, and inland areas

Moderate chance (65%) of mean daily rainfall up to 2.5 mm.

## Northern, North-Western areas

Moderate chance (65%) of mean daily rainfall up to 3.1 mm.

Tobago Rainfall Forecast for the 15-Day period of September (16<sup>th</sup>–30<sup>th</sup>) 2023.

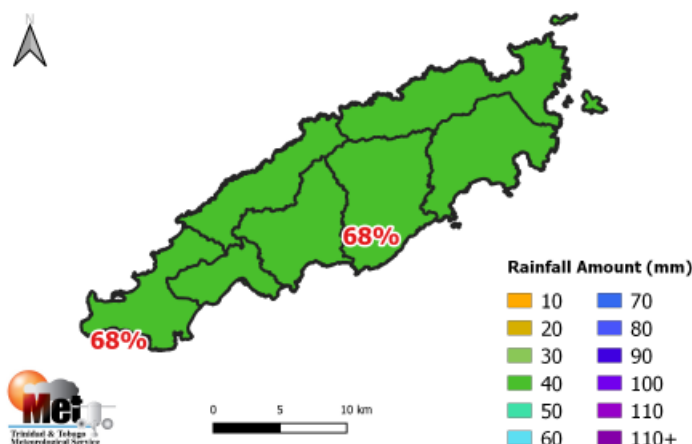


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period (16<sup>th</sup>–30<sup>th</sup>) September 2023 and percentage probability of occurrence.

## North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 4.0 mm.

## South-Western areas

Moderate chance (68%) of mean daily rainfall up to 4.0 mm.

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## Sun and Moon Positions in the Sky September (16<sup>th</sup>–30<sup>th</sup>) 2023.

The sun is presently at 3.0 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from September 16<sup>th</sup> will be 12 hours and 11 minutes, decreasing slightly to 12 hours and 02 minutes by the 30<sup>th</sup> of September 2023. According to the moon's phases, the 16<sup>th</sup>-19<sup>th</sup>, 22<sup>nd</sup> (First Quarter Phase)-23<sup>rd</sup> and 26<sup>th</sup>-27<sup>th</sup> of September are good days for planting aboveground crops, while the 30<sup>th</sup> of September is a good day for planting below ground crops. However, 20<sup>th</sup>-21<sup>st</sup>, 24<sup>th</sup>-25<sup>th</sup> and 28<sup>th</sup>-29<sup>th</sup> (Full moon Phase) of September 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 (16<sup>th</sup>-30<sup>th</sup>) forecast period of September 2023, expect less partly cloudy to cloudy periods and fewer showery episodes as compared to the first 15-day forecast period of September. Mostly light showery events will produce a few relatively wet days during the forecast period. Therefore, a possible ramping up of irrigation on fields to maintain optimal soil moisture would be necessary. There is a high (90%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is a low (20%) probability for flash and riverine flooding episodes. River levels will be low during the forecast period. There is also a low probability (30%) chance for fungi spread, insect pests and warm/moist weather diseases to develop in crop beds.

## Weather Assessment for the period September (1<sup>st</sup>-15<sup>th</sup>) 2023.

Low rainfall amount occurred in Trinidad while low to moderate amounts of rainfall occurred during the 2<sup>nd</sup> and 4<sup>th</sup> in Tobago only. The rainfall totals maps for the period, 1<sup>st</sup> to 15<sup>th</sup> for Trinidad and Tobago are located below in figure 1 and Figure 2.

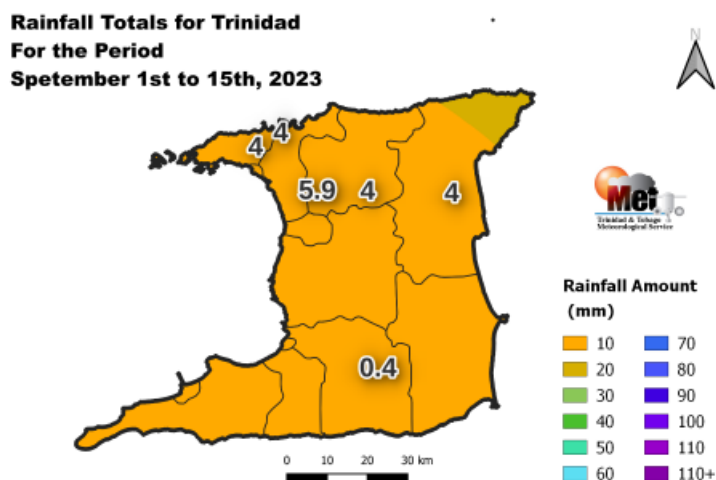


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during the period 1<sup>st</sup> to 15<sup>th</sup> of September 2023.

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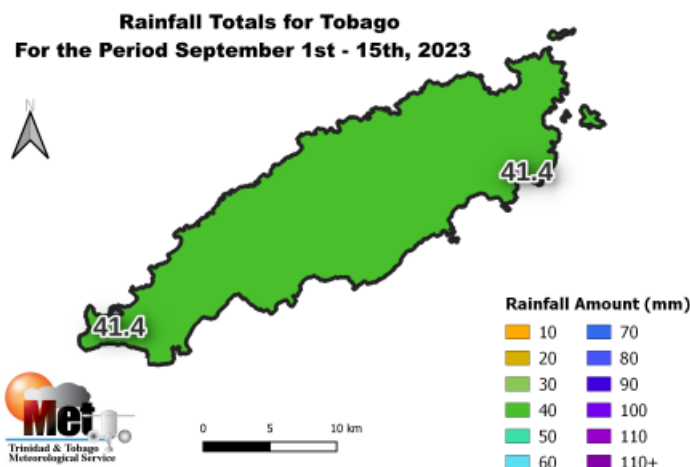


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during the period 1<sup>st</sup> to 15<sup>th</sup> of September 2023.

## Temperatures:

Temperatures were cool to hot during the period 1<sup>st</sup> to 15<sup>th</sup> of September, with the minimum nighttime temperature falling to 23.4 °C and the maximum daytime temperature rising to 34.1 °C, in Trinidad.

Similarly, Tobago temperatures were cool to very warm during the period 1<sup>st</sup> to 15<sup>th</sup> of September, with the minimum nighttime temperature falling to 24.8 °C and the maximum daytime temperature rising to 32.7 °C.

## Summary

### Summary of Expected Weather:

#### Low rainfall amounts are expected during the fifteen days.

Low rainfall amounts are expected for this second fifteen days of September, relatively wet days (< 9.0 mm) are expected on the 18<sup>th</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> while relatively dry days (< 1.0 mm) are expected on 16<sup>th</sup>, 17<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup>.

#### Trinidad and Tobago:

Low rainfall amounts are expected for this second fifteen days of September, relatively wet days (< 9.0 mm) are expected on the 18<sup>th</sup>, 22<sup>nd</sup>, 23<sup>rd</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup> and 30<sup>th</sup> while relatively dry days (< 1.0 mm) are expected on 16<sup>th</sup>, 17<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup>. The daily rainfall totals are forecast to range between 0.0 mm to 9.0 mm across different farmlands across the islands, especially along the eastern and western coastal areas of Trinidad, and Tobago. The fifteen-day rainfall totals ranging between 25.0 mm and 40.0 mm in Trinidad, and 40.0 mm in Tobago.

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### Temperatures & Winds:

The maximum temperatures are expected to become very warm to hot, with daily temperatures ranging between 31.0°C to 34.5°C throughout the period. However, temperatures are expected to have a real-feel or feels-like between 34.0°C to 45.0°C on most days. The minimum temperatures will range between 25.5°C to 28.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

In general, mostly weak southeasterly winds with an average speed of 10-20 km/h are expected. Low rainfall totals, mostly light speeds, warm-to-hot days, and warm-to-hot feels-like temperatures will sustain average evapotranspiration rates in crops ranging between 7.0 to 14.0 mm per day.

### Moisture levels:

Over the fifteen-day period across Trinidad and Tobago, moisture levels are expected to be low with average daytime relative humidity values in the low-40s to low-70s, in terms of percentage.

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