

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

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













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11 <sup>th</sup>	 10% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Warm</b>  Max/Min Temperatures °C 32.5/22.6	Feels like 33-38°C	40-60%	 Moderate easterly 25 km/h Gust 35 km/h
12 <sup>th</sup>	 10% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Warm</b>  Max/Min Temperatures °C 32.5/22.6	Feels like 34-37°C	51-59%	 Moderate easterly 25 km/h Gust 35 km/h
13 <sup>th</sup>	 20% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Warm</b>  Max/Min Temperatures °C 32.0/23.0	Feels like 35-38°C	53-64%	 Moderate easterly 20 km/h Gust 35 km/h
14 <sup>th</sup>	 30% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Warm</b>  Max/Min Temperatures °C 32.0/23.0	Feels like 35-37°C	54-57%	 Moderate easterly 20 km/h Gust 30 km/h
15 <sup>th</sup>	 65% chance	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Warm</b> 	Feels like		 Moderate easterly 20 km/h















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	of showers possible			Max/Min Temperatures °C 32.0/23.0	36- 39°C	57-65%	Gust 30 km/h
16 <sup>th</sup>	 70% chance of showers	10.0 to 15.0 mm of rainfall is possible	Cloudy with showers	<b>Warm</b>  Max/Min Temperatures °C 31.0/23.5	Feels like 33-38°C	74-77%	 Moderate south-easterly 20 km/h Gust 30 km/h
17 <sup>th</sup>	 65% chance of showers	1.0 to 8.0 mm of rainfall is possible	Partly cloudy with showers	<b>Warm</b>  Max/Min Temperatures °C 31.5/24.0	Feels like 34-38°C	56-69%	 Moderate south-easterly 20 km/h Gust 30 km/h
18 <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 31.5/24.0	Feels like 34-38°C	57-70%	 Moderate easterly 20 km/h Gust 30 km/h
19 <sup>th</sup>	 20% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Very warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 35-39°C	47-59%	 Moderate easterly 25 km/h Gust 35 km/h





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20 <sup>th</sup>	 10% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Very warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 37-41°C	46-57%	 Moderate easterly 20 km/h Gust 30 km/h
21 <sup>st</sup>	 10% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Very warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 36-40°C	48-60%	 Moderate easterly 20 km/h Gust 35 km/h
22 <sup>nd</sup>	 10% chance of a shower	Less than 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower	<b>Very warm</b>  Max/Min Temperatures °C 33.0/24.0	Feels like 35-39°C	46-58%	 Moderate easterly 20 km/h Gust 35 km/h
23 <sup>rd</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 32.0/24.0	Feels like 37-40°C	50-63%	 Moderate easterly 20 km/h Gust 30 km/h
24 <sup>th</sup>	 60% chance	1.0 to 2.0 mm of	Partly cloudy with one or	<b>Warm</b>	Feels		 Moderate easterly

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	of showers	rainfall is possible	two showers	 Max/Min	like 37-40°C	61-70%	20 km/h Gust 30 km/h
25 <sup>th</sup>	 60% chance of showers	1.0 to 2.0 mm of rainfall is possible	Partly cloudy with one or two showers	Temperatures °C Warm  Max/Min Temperatures °C 32.0/24.0	Feels like 37-40°C	61-70%	 Moderate easterly 20 km/h Gust 30 km/h

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

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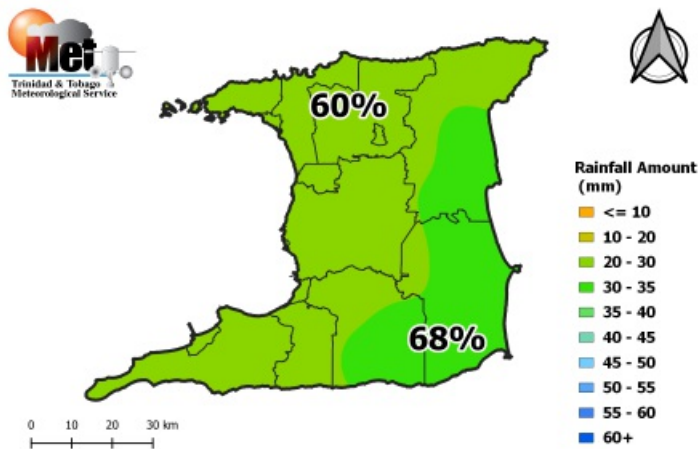


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11<sup>th</sup>-25<sup>th</sup>) May 2022 and percentage probability of occurrence.

**Eastern, and North-Eastern areas**

Moderate chance (60%) of mean daily rainfall up to 2.5 mm.

**South-Eastern areas**

Moderate chance (68%) of mean daily rainfall up to 3.0 mm.

**Southern areas**

Moderate chance (68%) of mean daily rainfall up to 2.2 mm.

**South-Western areas**

Moderate chance (60%) of mean daily rainfall up to 2.0 mm.

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

Moderate chance (60%) of mean daily rainfall up to 2.0 mm.

**Northern, North-Western areas**

Moderate chance (60%) of mean daily rainfall up to 2.0 mm.

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

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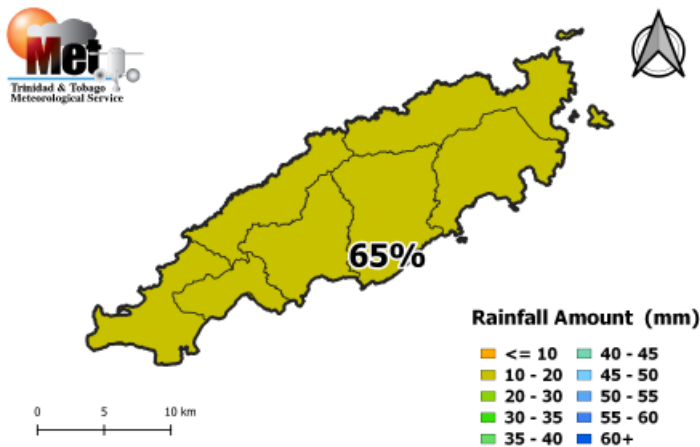


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Tobago during the 15-day period (11<sup>th</sup>-25<sup>th</sup>) May 2022 and percentage probability of occurrence.

#### North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 1.5 mm.

#### South-Western areas

Moderate chance (65%) of mean daily rainfall up to 1.5 mm.

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

The sun is presently at 17.5 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from May 11<sup>th</sup> will be 12 hours and 35 minutes, increasing slowly to 12 hours and 40 minutes by 25<sup>th</sup> May 2022. According to the moon's phases the 12<sup>th</sup>- 15<sup>th</sup>, 22<sup>nd</sup> (Third Quarter Phase) and 23<sup>rd</sup> of May are good days for planting aboveground crops while the 18<sup>th</sup>-19<sup>th</sup> are good days for planting belowground crops. However, the 11<sup>th</sup>, 16<sup>th</sup> (Full Moon Phase), 17<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup> and 25<sup>th</sup> of May 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>) May 2022, expect slightly wetter conditions to occur as compared to the first 15-day (1<sup>st</sup> to 15<sup>th</sup>) May forecast period. Partly cloudy to cloudy periods with few showers will interrupt sunny and hazy days. Wetter conditions are most likely in the northeastern, eastern, and southeastern parts of Trinidad only.

There is a high probability (70%) chance for crop irrigation measures to take place during the forecast period due to

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expected low rainfall amounts on certain days. However, livestock should be provided with fresh cool water during this forecast period to rehydrate particularly on dry days. There is a high probability (80%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is also a moderate probability (68%) chance for fungi spread, insect pests and warm weather diseases to develop in crop beds. River levels will remain generally at low levels during this forecast period but will become moderate at times during the 15<sup>th</sup> -17<sup>th</sup> of May 2022.

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

Warm, dry, hazy and at times windy conditions occurred across Trinidad and Tobago during the dekad (1<sup>st</sup>-9<sup>th</sup>) of May 2022. This resulted in scanty rainfall amounts, low river levels and low moisture content in soils. Crop growth and development in general on agricultural lands and vegetation growth in pastures have been significantly reduced. The rainfall totals maps for the period, 1<sup>st</sup> to 9<sup>th</sup> of May for Trinidad and Tobago are located below as figure 1 and figure 2.

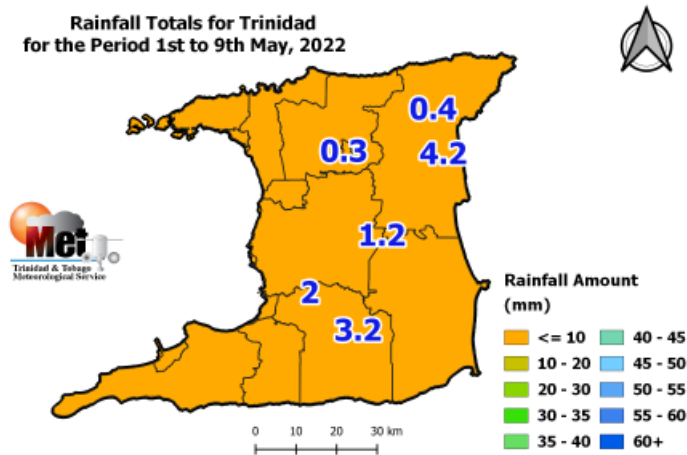


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> May 2022.

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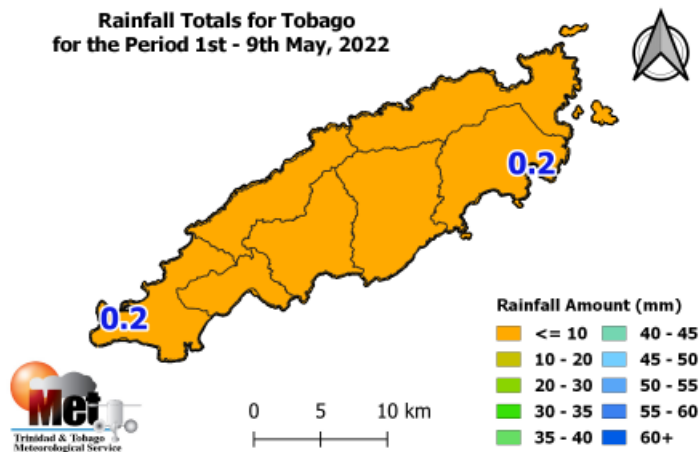


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 1<sup>st</sup> to 9<sup>th</sup> May 2022.

#### Temperatures:

Temperatures were cool to warm during the period 1<sup>st</sup> to 9<sup>th</sup> May, as the minimum nighttime temperature fell to 22.6 °C and the maximum daytime temperature rose to 33.1 °C, in Trinidad.

Similarly, Tobago temperatures were cool to warm during the period 1<sup>st</sup> to 9<sup>th</sup> May, with minimum nighttime temperature fell to 24.5 °C and maximum daytime temperature rose to 32.0 °C.

#### Summary

#### Summary of Expected Weather:

**Moderate to Low rainfall amounts are expected on seven of the fifteen days.**

One wet day with rainfall amounts ranging between 10.0 mm and 15.0 mm is expected on the 16<sup>th</sup> of May while, six relatively wet days with rainfall amounts ranging between 1.0 mm and 8.0 mm are expected on the 15<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and the 23<sup>rd</sup>-25<sup>th</sup> of May 2022. However, eight relatively dry days with rainfall amounts less than 1.0 mm are expected on the 11<sup>th</sup>-14<sup>th</sup> and the 19<sup>th</sup>-22<sup>nd</sup> of May 2022.

#### Trinidad:

Partly cloudy to cloudy periods are expected on the 15<sup>th</sup>-18<sup>th</sup> and the 23<sup>rd</sup>-25<sup>th</sup> of May 2022, which is likely to bring light/moderate and occasionally heavy rainfall particularly on the 16<sup>th</sup> of May in farmlands across northeastern, eastern and southeastern parts of Trinidad. The daily rainfall totals are forecast to range between 1.0 mm to 15.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 20.0 mm and 30.0 mm. The moderate rains are expected mostly over farmlands in the northeastern areas of Sangre Grande, Fishing Pond; eastern areas of Plum Mitan,

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Nariva and Manzanilla and southeastern areas of Mayaro, Guayaguayare and Moruga. However, eight relatively dry days with rainfall amounts less than 1.0 mm are expected on the 11<sup>th</sup>-14<sup>th</sup> and the 19<sup>th</sup>-22<sup>nd</sup> of May 2022.

#### **Tobago:**

Tobago will experience drier conditions than Trinidad. Partly cloudy periods on the 15<sup>th</sup>-18<sup>th</sup> and the 23<sup>rd</sup>-25<sup>th</sup> of May 2022, will likely bring light rainfall across farmlands in Tobago. The daily rainfall totals are forecast to range between 1.0 mm to 3.0 mm across different farmlands, with the fifteen-day rainfall totals averaging around 15.0 mm across the island. However, eight relatively dry days with rainfall amounts less than 1.0 mm are expected on the 11<sup>th</sup>-14<sup>th</sup> and the 19<sup>th</sup>-22<sup>nd</sup> of May 2022

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

The maximum temperatures are expected to remain warm, with temperatures ranging between 31.0°C to 33.0°C throughout the period. However, temperatures are expected to have a real-feel or feels-like between 33.0°C to 40.0°C on most days. The minimum temperatures will range between 22.6°C to 24.0°C during most nights/early mornings, dropping lower in rural areas and valleys.

Mostly moderate easterly winds of an average speed of 20 km/h are expected, with gusts of 30-35 km/h at times. Moderate to low rainfall totals, mostly average wind speeds, warm days and warm feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 4.0 to 10.0 millimeters per day.

#### **Moisture levels:**

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

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