

## Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Dekad (21st - 31st) of October, 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 (21<sup>st</sup> – 4<sup>th</sup>) of October/November 2021

Date	Weather	Temperature	Heat Real Feel	Day Moisture (Relative)	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.

						(Humidity)	
21 <sup>st</sup>	 85% chance of light/moderate/heavy showers	10.0 to 60.0 mm of rainfall with higher amounts in the southeastern southwestern parts of Trinidad	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 30.0°C	Feels like 32-36°C	86-90%	 Weak easterly 10 km/h Gust 20 km/h
22 <sup>nd</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	<b>Very Warm</b>  Max Temp 32.5°C	Feels like 34-40°C	66-74%	 Weak easterly 10 km/h Gust 20 km/h
23 <sup>rd</sup>	 85% chance of light/moderate/heavy showers	10.0 to 60.0 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 32.0°C	Feels like 32-36°C	83-88%	 Weak easterly 10 km/h Gust 20 km/h
24 <sup>th</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall with higher amounts in the western coast of Trinidad/Tobago	Partly cloudy to cloudy with showers	<b>Very Warm</b>  Max Temp 32.5°C	Feels like 34-38°C	81-85%	 Weak south-easterly 10 km/h Gust 20 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.

25 <sup>th</sup>	 85% chance of light/moderate/heavy showers	10.0 to 60.0 mm of rainfall with higher amounts in the southwestern parts of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 30.0°C	Feels like 30-34°C	85-92%	 Weak south-easterly 10 km/h Gust
26 <sup>th</sup>	 85% chance of light/moderate/heavy showers	10.0 to 60.0 mm of rainfall with higher amounts in Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 30.0°C	Feels like 30-34°C	94-97%	 Weak south-easterly 10 km/h Gust 20 km/h
27 <sup>th</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	<b>Warm</b>  Max Temp 32.0°C	Feels like 34-38°C	76-86%	 Weak easterly 10 km/h Gust 20 km/h
28 <sup>th</sup>	 85% chance of light/moderate/heavy showers	10.0 to 60.0 mm of rainfall with higher amounts in Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 30.0°C	Feels like 30-34°C	94-97%	 Weak easterly 10 km/h Gust 20 km/h
				<b>Very 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.

29 <sup>th</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	 Max Temp 32.5°C	Feels like 34-38°C	70-84%	Weak easterly 10 km/h Gust 20 km/h
30 <sup>th</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	<b>Warm</b>  Max Temp 32.0°C	Feels like 32-38°C	76-87%	 Weak south-easterly 10 km/h Gust 20 km/h
31 <sup>st</sup>	 75% chance of light/moderate/heavy showers	10.0 to 30.0 mm of rainfall with higher amounts on the eastern parts of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 32.0°C	Feels like 34-40°C	74-87%	 Weak south-easterly 10 km/h Gust 20 km/h
1 <sup>st</sup>	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with few showers	<b>Very Warm</b>  Max Temp 33.0°C	Feels like 34-40°C	65-80%	 Weak south-easterly 10 km/h Gust 20 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.

2 <sup>nd</sup>	 75% chance of showers	10.0 to 30.0 mm of rainfall is possible	Cloudy with light to moderate/heavy showers	<b>Warm</b>  Max Temp 31.0°C	Feels like 34-40°C	79-87%	 Weak south-easterly 10 km/h Gust
3 <sup>rd</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	<b>Warm</b>  Max Temp 32.0°C	Feels like 34-40°C	70-82%	 Weak south-easterly 10 km/h Gust 20 km/h
4 <sup>th</sup>	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	<b>Warm</b>  Max Temp 32.0°C	Feels like 34-40°C	70-82%	 Weak south-easterly 10 km/h Gust 20 km/h

**Trinidad Rainfall Forecast for the 15-Day period of October/November (21<sup>st</sup>-4<sup>th</sup>) 2021**

**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.

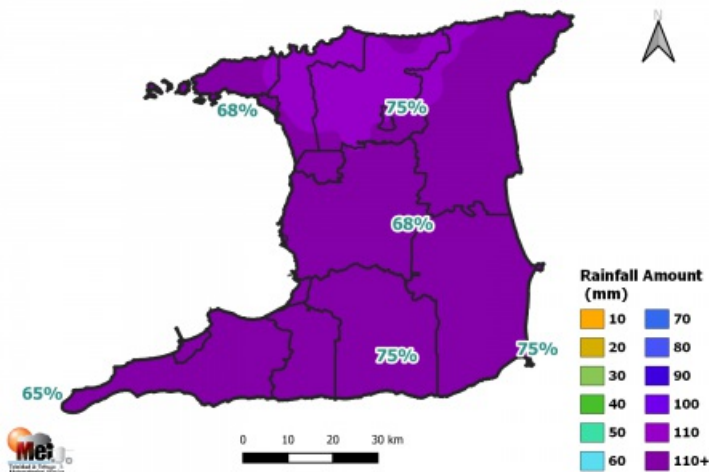


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (21<sup>st</sup>-4<sup>th</sup>) October/November 2021 and percentage probability of occurrence.

**Eastern, and North-Eastern areas**

Moderate chance (68%) of mean daily rainfall up to 12.9 mm.

**South-Eastern areas**

High chance (75%) of mean daily rainfall up to 12.5 mm.

**Southern areas**

High chance (75%) of mean daily rainfall up to 16.5 mm.

**South-Western areas**

Moderate chance (65%) of mean daily rainfall up to 17.5 mm.

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

Moderate chance (68%) of mean daily rainfall up to 14.3 mm.

**Northern, North-Western areas**

Moderate chance (68%) of mean daily rainfall up to 11.6 mm.

**Tobago Rainfall Forecast for the 15-Day period of October/November (21<sup>st</sup>-4<sup>th</sup>) 2021**

**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.

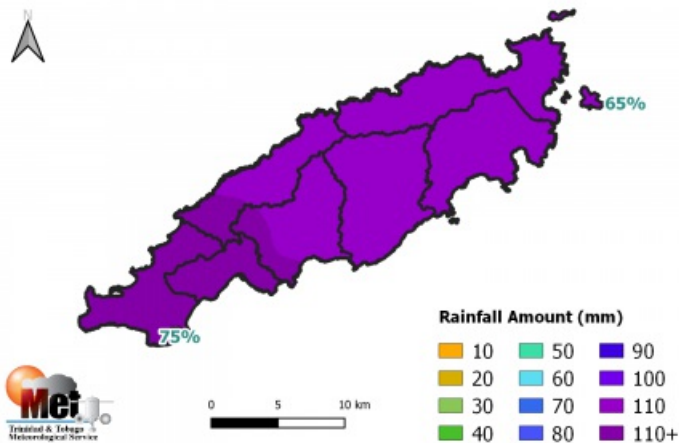


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (21<sup>st</sup>-4<sup>th</sup>) October/November 2021 and percentage probability of occurrence.

#### North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 10.0 mm.

#### South-Western areas

High chance (75%) of mean daily rainfall up to 11.4 mm.

#### Sun and Moon Positions in the Sky October/November (21<sup>st</sup>-4<sup>th</sup>) 2021

The sun is presently at 10.5 degrees south latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from October 21<sup>st</sup> will be 11 hours 50 minutes, reducing steadily to 11 hours and 43 minutes by the 4<sup>th</sup> November. During the days that may have patchy or partly cloudy skies and particularly during the hours 11:00 am to 3:00 pm, high solar radiation intensity will be experienced. Farmers must be proactive at these times to prevent heat stroke and other heat-related ailments from affecting young, sick livestock and seedlings. Therefore, sufficient shade and ventilation together with fresh cool water provided to livestock when necessary will be essential.

According to the moon phases, the 4<sup>th</sup> (New Moon phase) of November is a good day for planting aboveground crops, while the 21<sup>st</sup>, 22<sup>nd</sup>, 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> of October and 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> of November are good days for planting belowground crops. However, the 23<sup>rd</sup>, 24<sup>th</sup>, 28<sup>th</sup> (Third Quarter phase), 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> of October are poor planting days. These days should be used for removing weeds, clearing land and ploughing fields.

#### Highlighted Possible Impacts on Agriculture:

Farmlands in Trinidad and Tobago received mostly low to moderate amounts of rainfall during the last dekad (11<sup>th</sup>-19<sup>th</sup>) of October. During this third fifteen-day forecast period of (21<sup>st</sup> to 4<sup>th</sup>) October/November, expect slightly more rainfall

#### 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.

amounts to occur as compared to the last fifteen-day 11<sup>th</sup> to 25<sup>th</sup> October forecast period. Mostly sunny mornings will give way to increasingly cloudy afternoons and evenings with wetter conditions mostly on the northwestern, western and southwestern parts of Trinidad and southwestern Tobago. The light winds and moderate to high rainfall amounts in this second fifteen-day period of October will sustain below average evaporation and evapotranspiration rates overall.

There is a low probability (25%) chance for crop irrigation measures at this time owing to the moderate/high rainfall amount and moderate/high soil moisture content expected. However, livestock should be provided with fresh cool water particularly on hot drier periods to rehydrate. There is a moderate probability (60%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is also a moderate probability (65%) chance for fungi spread, insect pests and warm weather diseases to develop in crop beds. There is also a high probability (80%) chance of root rot and fruit rot on crops owing to the expected moderate/high amount of rainfall and flooded fields and pastures.

River levels will move from moderate levels to high levels at times, particularly on wet days. Therefore, farmers should remain prepared with necessary flood alleviating actions such as using portable water pumps, sandbags and elevated structures on the ground to store animals, seedlings, machinery and other equipment.

### Weather Assessment for the period October (11<sup>th</sup> -19<sup>th</sup>) 2021.

A mixture of dry and wet conditions occurred across Trinidad and Tobago. The 13<sup>th</sup>, 14<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> of October were rainy days, while on other days mostly sunny conditions with few showers prevailed. Mostly very warm days, warm winds and low/moderate river levels and moderate moisture content in soils may have stimulated crop growth and development in agricultural lands and vegetation growth in pastures. The rainfall totals maps for the period 11<sup>th</sup> to 19<sup>th</sup> of October for Trinidad and Tobago are located below as figure 1 and figure 2.

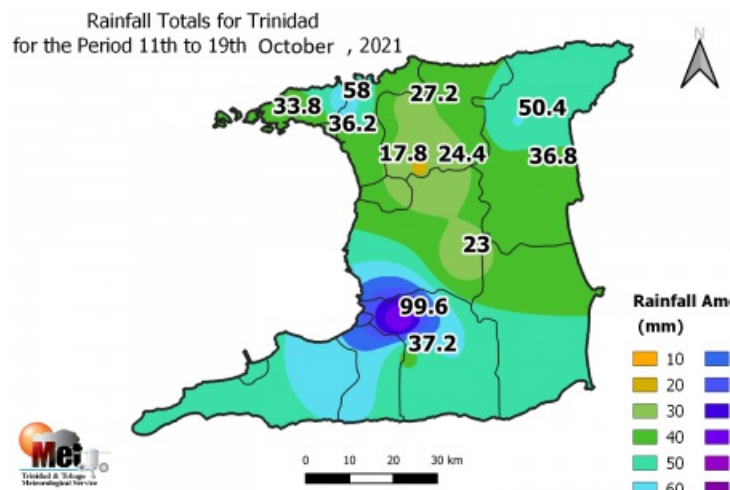


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 11<sup>th</sup> to 19<sup>th</sup> of October 2021.

### 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.



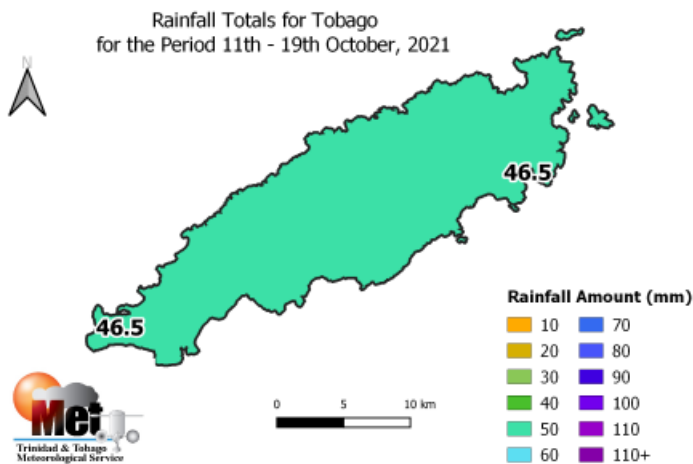


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 11<sup>th</sup> to 19<sup>th</sup> of October 2021.

#### Temperatures:

Temperatures remained very warm to hot during the period as maximum daytime temperatures ranged between 32.5 °C and 33.8 °C, in Trinidad.

In Tobago, temperatures were warm to very warm, with maximum daytime temperatures ranging between 31.7 °C and 32.8 °C.

#### Summary

Summary of Expected Weather: Moderate to high rainfall amounts are expected on seven of the fifteen days. Wet days (rainfall amounts between 10.0 and 60.0 mm) are expected on the 21st, 23rd, 25th, 26th, 28th, 31st October and the 2nd of November, with higher amounts in southeastern and southwestern Trinidad and southwestern Tobago. However, eight relatively wet days with rainfall amounts of 1.0 mm to 9.0 mm are expected on the 22nd, 24th, 27th, 29th 30th, 1st, 3rd and 4th of October/November. Trinidad: Partly cloudy to cloudy spells are expected on 21st, 23rd, 25th, 26th, 28th, 31st, and 2nd of October/November, which will likely bring light to moderate/heavy rainfall across farmlands across northwestern, northeastern, eastern, southwestern and central areas of Trinidad. Daily rainfall totals are forecast to be between 10.0 mm and 60.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 100.0 mm and 200.0 mm. The heaviest and most long-lasting rains are expected over farmlands in the northwestern areas of Chaguaramas, northeastern areas of Sangre Grande, Fishing Pond, Plum Mitán and Vega De Oropouche; southwestern areas of Penal, Point Fortin, La Brea, Palo Seco, Granville and Cedros and central areas of Claxton Bay, Couva, Felicity, Chaguanas and Charlieville. However, on the 22nd, 24th, 27th, 29th 30th, 1st, 3rd and 4th of October/November expect partly cloudy conditions with few light to moderate showers with daily rainfall amounts ranging between 1.0 mm to 9.0 mm. Tobago: Tobago will experience similar conditions as compared to Trinidad. Farmers should expect seven days of light to moderate/heavy rainfall amounts particularly on the 21st, 23rd, 25th, 26th,

#### 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.

28th, 31st, and 2nd of October/November. Daily rainfall totals are forecast to be between 10.0 mm and 60.0 mm across farmlands, particularly on the southwestern parts of the island. The fifteen-day rainfall totals will range between 100.0 mm and 125.0 mm across the island. However, on the 22nd, 24th, 27th, 29th 30th, 1st, 3rd and 4th of October/November expect partly cloudy conditions with few light to moderate showers with daily rainfall amounts ranging between 1.0 mm to 9.0 mm, Temperatures & Winds: Most days the maximum temperatures are expected to remain warm (30.0oC) to very warm (33.0oC) throughout most of the period owing to expected afternoon/evening cloud cover. However, temperatures are expected to have a real-feel or feels-like between 32.0oC to 38.0oC on most days. Mostly weak easterly to southeasterly winds of an average speed of 10 km/h are expected, with gusts ranging between 20 km/h to 60 km/h particularly in heavy showers or thundershowers. Moderate to high rainfall totals, mostly below average wind speeds, warm days and moderate feels-like temperatures will sustain below average evapo-transpiration rates in crops ranging between 1.7 to 6.9 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 mid-60s to low-70s, in terms of percentage. While during possible rainy days (21st, 23rd, 25th, 26th, 28th, 31st, and 2nd of October/November), average daytime relative humidity values will be in the low-80s to low-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.**