


Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the First Dekad (1st - 10th) of November, 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 (1st – 15th) of November 2021

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

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Issue date: 2021-11-01

1 st	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 36-45°C	55-82%	Weak easterly 10 km/h Gust 20 km/h
2 nd	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 36-45°C	55-82%	 Weak easterly 10 km/h Gust 20 km/h
3 rd	 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	Very Warm  Max Temp 32.0°C	Feels like 42-48°C	75-87%	 Weak easterly 10 km/h Gust 20 km/h
4 th	 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	Very Warm  Max Temp 33.0°C	Feels like 40-42°C	60-67%	 Weak south-easterly 10 km/h Gust 20 km/h
		1.0 to 5.0 mm of rainfall with	Partly cloudy to	Very Warm			 Weak













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5 th	 65% chance of showers	higher amounts in the western coast of Trinidad/Tobago	cloudy with showers	 Max Temp 32.0°C	Feels like 40-43°C	68-76%	south-easterly 10 km/h Gust 20 km/h
6 th	 60% chance of showers	1.0 to 3.0 mm of rainfall	Partly cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 37-40°C	65-76%	 Weak easterly 10 km/h Gust 20 km/h
7 th	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.5°C	Feels like 37-40°C	56-64%	 Weak easterly 10 km/h Gust 20 km/h
8 th	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.5°C	Feels like 40-43°C	65-72%	 Weak easterly 10 km/h Gust 20 km/h
9 th	 68% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.5°C	Feels like	65-70%	 Weak easterly 10 km/h

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				Max Temp 32.5°C	40-43°C		Gust 20 km/h
10 th	 65% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.0°C	Feels like 40-44°C	60-71%	 Weak easterly 10 km/h Gust 20 km/h
11 th	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.0°C	Feels like 38-43°C	54-68%	 Weak easterly 10 km/h Gust 20 km/h
12 th	 70% chance of light/moderate/heavy showers	10.0 to 20.0 mm of rainfall with higher amounts in the eastern, northwestern and southwestern parts of Trinidad	Cloudy with light to moderate/heavy showers	Warm  Max Temp 31.5°C	Feels like 32-40°C	64-84%	 Weak easterly 10 km/h Gust 20 km/h
13 th	 70% chance of light/moderate/heavy showers	10.0 to 20.0 mm of rainfall with higher amounts in the eastern, northwestern and southwestern parts of Trinidad	Cloudy with light to moderate/heavy showers	Warm  Max Temp 31.0°C	Feels like 32-40°C	64-84%	 Weak easterly 10 km/h Gust 20 km/h

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14 th	 65% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.5°C	Feels like 38-43°C	59-65%	 Weak south-easterly 10 km/h Gust
15 th	 65% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.5°C	Feels like 38-43°C	59-65%	 Weak south-easterly 10 km/h Gust 20 km/h

Trinidad Rainfall Forecast for the 15-Day period of November (1st–15th) 2021

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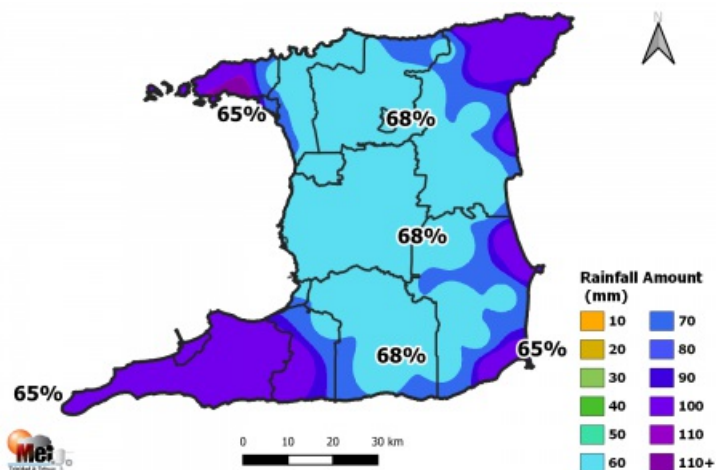


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (1st-15th) November 2021 and percentage probability of occurrence.

Eastern, and North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 7.6 mm.

South-Eastern areas

High chance (65%) of mean daily rainfall up to 7.3 mm.

Southern areas

High chance (68%) of mean daily rainfall up to 8.6 mm.

South-Western areas

Moderate chance (68%) of mean daily rainfall up to 8.8 mm.

Central, West-Central, and inland areas

Moderate chance (68%) of mean daily rainfall up to 6.0 mm.

Northern, North-Western areas

Moderate chance (65%) of mean daily rainfall up to 7.8 mm.

Tobago Rainfall Forecast for the 15-Day period of November (1st-15th) 2021

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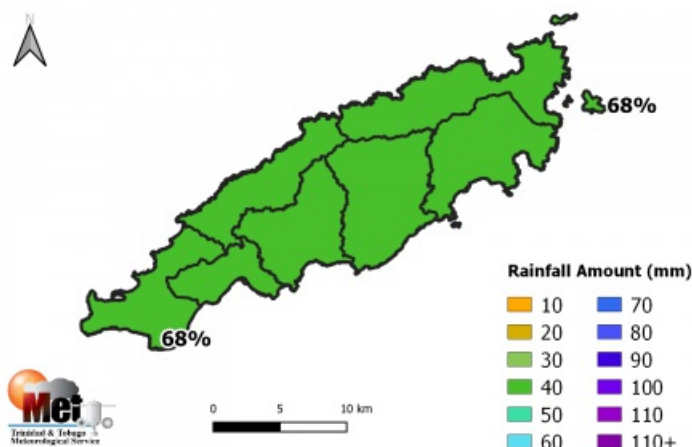


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (1st-15th) November 2021 and percentage probability of occurrence.

North-Eastern areas

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

South-Western areas

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

Sun and Moon Positions in the Sky November (1st-15th) 2021

The sun is presently at 14.0 degrees South latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from November 1st will be 11 hours 44 minutes, reducing steadily to 11 hours and 38 minutes by the 15th November. During the days that may have patchy or partly cloudy skies and particularly during the hours 11:00 am to 3:00 pm, moderate to 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, it will be essential to provide sufficient shade and ventilation together with fresh cool water to livestock when necessary.

According to the moon phases, the 4th (New Moon phase), 7th, 8th, 12th and 13th of November are good days for planting aboveground crops, while the 1st, 2nd and 3rd of November are good days for planting belowground crops. However, the 5th, 6th, 9th, 10th, 11th (First Quarter phase), 14th and 15th of November 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 moderate to high amounts of rainfall during the last dekad (21st-30th) of October. During this first fifteen-day forecast period of (1st to 15th) November, expect considerably less rainfall

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amounts to occur as compared to the last fifteen-day 21st to 4th October/November forecast period. Mostly sunny mornings and afternoons will give way to increasingly cloudy evenings with slightly wetter conditions mostly on the eastern, northwestern and southwestern parts of Trinidad and southwestern Tobago. The light winds and moderate to low rainfall amounts in this first fifteen-day period of November will sustain below average evaporation and evapotranspiration rates overall.

There is a moderate probability (60%) chance for crop irrigation measures at this time due to the moderate to low rainfall amount and moderate to low soil moisture content at times. 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 (60%) chance for fungi spread, insect pests and warm weather diseases to develop in crop beds. There is also a moderate probability (45%) chance of root rot and fruit rot on crops due to the expected moderate/low amount of rainfall.

River levels will move from low levels to moderate 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 (21st -30th) 2021.

Mostly wet conditions occurred across Trinidad and Tobago during the period October 21st to 30th. The 21st, 23rd, 25th, 26th, 27th and 28th of October were rainy days, while on other days mostly sunny conditions with few showers prevailed. Mostly very warm days, warm winds, moderate/high river levels and moderate to high moisture content in soils may have stimulated crop growth and development in general in agricultural lands and vegetation growth in pastures. The rainfall totals maps for the period 21st to 30th of October for Trinidad and Tobago are located below as figure 1 and figure 2.

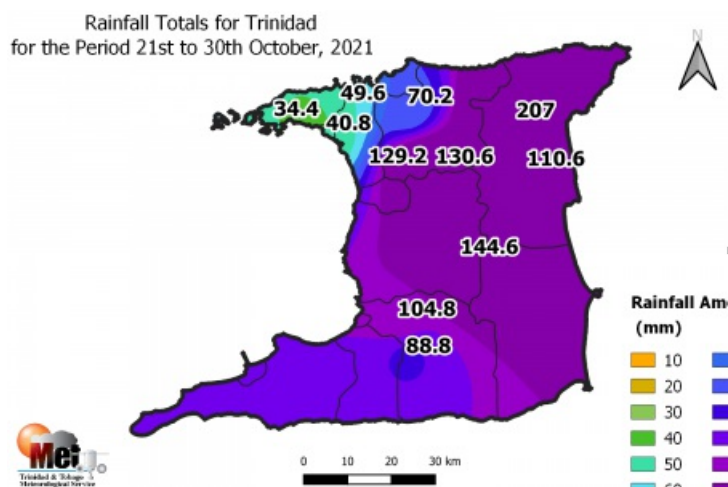


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 21st to 30th of October 2021.

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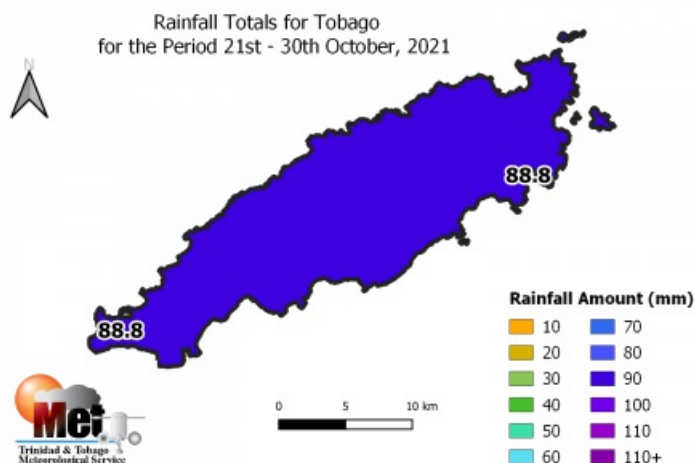


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during the period 21st to 30th of October 2021.

Temperatures:

Temperatures remained very warm to hot during the period as maximum daytime temperatures ranged between 28.2 °C and 32.2 °C, in Trinidad.

In Tobago, temperatures were warm to very warm, with maximum daytime temperatures ranging between 27.1 °C and 32.3 °C.

Summary

Summary of Expected Weather: Moderate rainfall amounts are expected on two of the fifteen days. Wet days (rainfall amounts between 10.0 and 20.0 mm) are expected on the 12th and 13th of November, with higher amounts in eastern, northwestern, and southwestern parts of Trinidad. However, thirteen relatively wet days with rainfall amounts of 1.0 mm to 9.0 mm are expected on the 1st, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 14th and 15th. Trinidad: Partly cloudy to cloudy spells are expected on the 12th and 13th of November, which will likely bring light to moderate/heavy rainfall across farmlands across eastern, northwestern, and southwestern parts of Trinidad. The daily rainfall totals are forecast to be between 10.0 mm and 20.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 60.0 mm and 100.0 mm. The heaviest and most long-lasting rains are expected over farmlands in the northwestern areas of Chaguaramas and Diego Martin; northeastern areas of Sangre Grande, Fishing Pond, Plum Mitán and Vega De Oropouche and southwestern areas of Penal, Point Fortin, La Brea, Palo Seco, Granville and Cedros. However, on the 1st-11th and 14th-15th of 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 less rainfall as compared to Trinidad. Farmers should expect mostly relatively wet days. The daily rainfall totals are forecast to be between 1.0 mm and 9.0 mm across farmlands, particularly on the southwestern parts of the island. The fifteen-

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day rainfall totals will average around 40.0 mm across the island Temperatures & Winds: Maximum temperatures are expected to remain warm (31.0oC) to very warm (33.0oC) throughout most of the period due to expected afternoon/evening cloud cover. However, temperatures are expected to have a real-feel or feels-like between 32.0oC to 44.0oC 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 low 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 3.5 to 9.0 millimeters per day. Moisture levels: Over the fifteen-day period across Trinidad and Tobago, moisture levels are expected to be moderate to low, with average daytime relative humidity values in the mid-50s to mid-70s, in terms of percentage. While during possible rainy days (12th and 13th), average daytime relative humidity values will be in the low-70s to mid-80s, in terms of percentage.

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