


Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) of December, 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 (11th – 25th) of December 2021

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

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Issue date: 2021-12-11

11 th	 60% chance of showers	0.1 to 5.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.0°C	Feels like 36-42°C	74-79%	Weak northeasterly 10 km/h Gust 20 km/h
12 th	 65% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 36-42°C	83-90%	 Weak easterly 10 km/h Gust 20 km/h
13 th	 70% chance of showers	10.0 to 25.0 mm of rainfall with higher amounts on the eastern coast of Trinidad/Tobago	Partly cloudy to cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 33-38°C	83-90%	 Weak northeasterly 10 km/h Gust 20 km/h
14 th	 78% chance of light/moderate/heavy showers	10.0 to 40.0 mm of rainfall with higher amounts on eastern, and southern parts of Trinidad	Partly cloudy to cloudy with light to moderate/heavy showers	Warm  Max Temp 31.0°C	Feels like 33-38°C	84-94%	 Weak northeasterly 10 km/h Gust 20 km/h
15 th	 70% chance of showers	10.0 to 25.0 mm of rainfall with higher amounts on the eastern coast of Trinidad/Tobago	Partly cloudy to cloudy with showers	Warm  Max Temp 31.0°C	Feels like 33-38°C	86-92%	 Weak northeasterly 10 km/h Gust





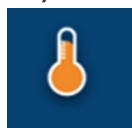








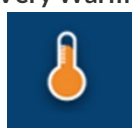

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							20 km/h
16 th	 70% chance of showers	10.0 to 15.0 mm of rainfall with higher amounts on the southern coast of Trinidad/Tobago	Partly cloudy to cloudy with showers	Warm  Max Temp 31.0°C	Feels like 33-38°C	85-91%	 Weak northeasterly 10 km/h Gust 20 km/h
17 th	 65% chance of showers	1.0 to 9.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 32.0°C	Feels like 33-40°C	64-74%	 Weak easterly 10 km/h Gust 20 km/h
18 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.0°C	Feels like 34-42°C	73-78%	 Weak easterly 10 km/h Gust 20 km/h
19 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.0°C	Feels like 33-42°C	77-82%	 Weak easterly 10 km/h Gust 20 km/h
20 th	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.0°C	Feels like 33-42°C	77-82%	 Weak easterly 10 km/h Gust 20 km/h

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21 st	 75% chance of light/moderate/heavy showers	10.0 to 25.0 mm of rainfall with higher amounts in eastern, and southern parts of Trinidad	Partly cloudy to cloudy with light to moderate/heavy showers	Warm  Max Temp 31.5°C	Feels like 33-40°C	87-96%	 Weak easterly 10 km/h Gust 20 km/h
22 nd	 60% chance of showers	1.0 to 3.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.0°C	Feels like 33-42°C	63-86%	 Weak easterly 10 km/h Gust 20 km/h
23 rd	 60% chance of showers	0.1 to 2.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.5°C	Feels like 36-44°C	70-73%	 Weak easterly 10 km/h Gust 20 km/h
24 th	 60% chance of showers	0.1 to 2.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.5°C	Feels like 36-44°C	65-74%	 Weak easterly 10 km/h Gust 20 km/h
25 th	 60% chance of showers	0.1 to 2.0 mm of rainfall is possible	Partly cloudy with one or two showers	Very Warm  Max Temp 32.5°C	Feels like 36-44°C	65-73%	 Weak easterly 10 km/h Gust 20 km/h

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Trinidad Rainfall Forecast for the 15-Day period of December (11th-25th) 2021

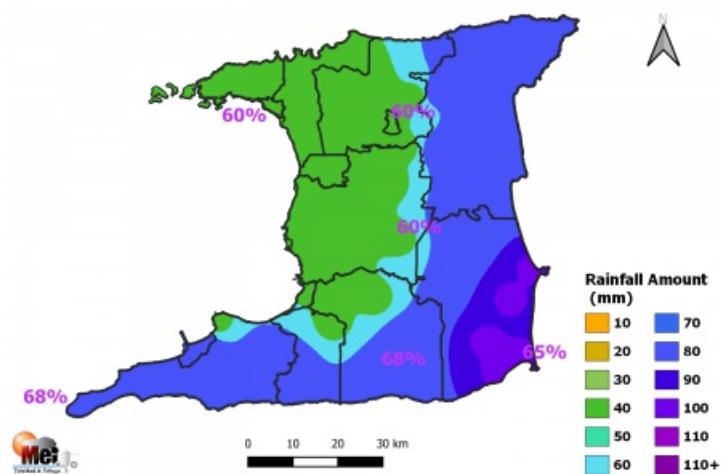


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11th-25th) December 2021 and percentage probability of occurrence.

Eastern, and North-Eastern areas

Moderate chance (60%) of mean daily rainfall up to 7.9 mm.

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South-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 9.3 mm.

Southern areas

Moderate chance (68%) of mean daily rainfall up to 7.7 mm.

South-Western areas

Moderate chance (68%) of mean daily rainfall up to 7.1 mm.

Central, West-Central, and inland areas

Moderate chance (60%) of mean daily rainfall up to 4.0 mm.

Northern, North-Western areas

Moderate chance (60%) of mean daily rainfall up to 4.0 mm.

Tobago Rainfall Forecast for the 15-Day period of December (11th–25th) 2021

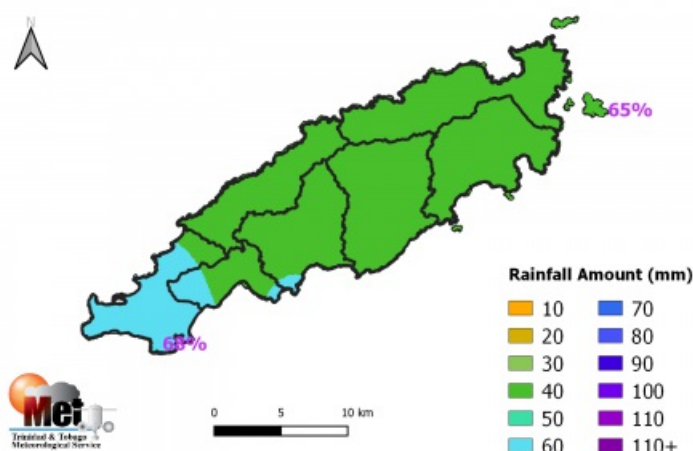


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11th–25th) December 2021 and percentage probability of occurrence.

North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 4.0 mm.

South-Western areas

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Moderate chance (68%) of mean daily rainfall up to 5.0 mm.

Sun and Moon Positions in the Sky December (11th–25th) 2021

The sun is presently at 22.9 degrees South latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from December 11th will be 11 hours 31 minutes, reducing steadily to 11 hours and 30 minutes by the 25th December. According to the moon phases, 14th and 15th December are good days for planting aboveground crops, while 19th (Full Moon Phase) and 20th of December are good days for planting belowground crops. However, 12th, 13th, 21st, 22nd, 23rd, 24th and 25th of December 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 moderate to low amounts of rainfall during the third dekad (1st-9th) of December. During this second fifteen-day forecast period of (11th to 25th) December, expect greater rainfall amounts to occur as compared to the first 15-day 21st to 5th December forecast period. Mostly sunny mornings and afternoons will give way to increasingly cloudy evenings with wetter conditions mostly on the northeastern, southeastern and southwestern parts of Trinidad and southwestern Tobago. The moderate to light winds and moderate rainfall amounts in this second 15-day period of December will sustain average evaporation and evapotranspiration rates overall.

There is a moderate probability (40%) chance for crop irrigation measures at this time due to the moderate rainfall amounts and moderate to high soil moisture content at times. However, livestock should be provided with fresh cool water particularly on warmer drier periods to rehydrate. There is a low probability (25%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is also a moderate probability (45%) chance for fungi spread, insect pests and warm weather diseases to develop in crop beds. There is also a low probability (28%) chance of root rot and fruit rot on crops due to the expected moderate amount of rainfall.

During those few rainy days, the potential for localized flash flooding still exists. 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 December (1st -9th) 2021.

Mostly dry conditions occurred across Trinidad and Tobago during the period 1st to 9th of December. 1st, 2nd and 4th of December were rainy days in northeastern parts of Trinidad, while on other days mostly sunny conditions with few showers prevailed. Mostly warm days, warm winds, low river levels and moderate to low 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 1st to 9th of December for Trinidad and Tobago are located below as figure 1 and figure 2.

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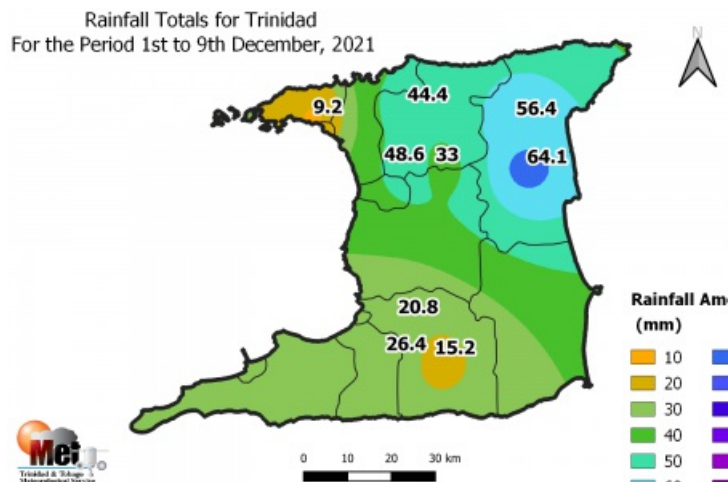


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 1st to 9th December.

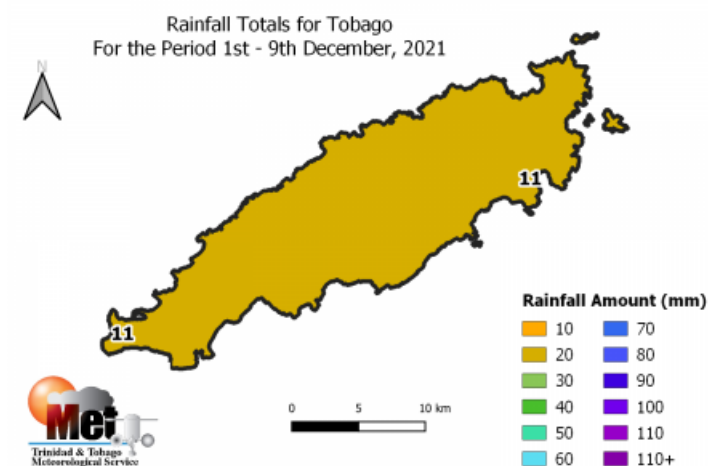


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 1st to 9th December.

Temperatures:

Temperatures remained warm to very warm during the period as maximum daytime temperatures ranged between 30.2 °C and 32.3 °C, in Trinidad.

In Tobago, temperatures were warm to very warm, with maximum daytime temperatures ranging between 30.3 °C and 32.0 °C.

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Summary

Summary of Expected Weather: Moderate rainfall amounts are expected on five of the fifteen days. Wet days (rainfall amounts greater than 10.0 mm), are expected on the 13th, 14th, 15th, 16th and 21st of December, with higher amounts in northeastern, southeastern and southwestern parts of Trinidad. However, ten relatively wet days with rainfall amounts of 0.1 mm to 9.0 mm are expected on the 11th, 12th, 17th, 18th, 19th, 20th, 22nd, 23rd, 24th and 25th December 2021. Trinidad: Partly cloudy to cloudy spells are expected on the 13th, 14th, 15th, 16th and 21st of December, which will likely bring light to moderate/heavy rainfall across farmlands in northeastern, southeastern and southwestern parts of Trinidad. The daily rainfall totals are forecast to be greater than 10.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 40.0 mm and 100.0 mm. The heaviest and most long-lasting rains are expected over farmlands in the northeastern areas of Sangre Grande, Fishing Pond, Plum Mitán; southeastern areas of Mayaro, Guayaguayare and Moruga; and southwestern areas of Penal, Point Fortin, La Brea, Palo Seco, Granville and Cedros. However, on the 11th, 12th, 17th, 18th, 19th, 20th, 22nd, 23rd, 24th and 25th December 2021, expect partly cloudy conditions with few light to moderate showers with daily rainfall amounts ranging between 0.1 mm to 9.0 mm. Tobago: Similar to Trinidad, Tobago will experience partly cloudy to cloudy spells on the 13th, 14th, 15th, 16th and 21st of December, which will likely bring light to moderate/heavy rainfall across farmlands mostly across southwestern parts of Tobago. The daily rainfall totals are forecast to be greater than 10.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 40.0 mm and 60.0 mm. However, on the 11th, 12th, 17th, 18th, 19th, 20th, 22nd, 23rd, 24th and 25th December 2021, expect partly cloudy conditions with few light to moderate showers with daily rainfall amounts ranging between 0.1 mm to 9.0 mm. Temperatures & Winds: Maximum temperatures are expected to remain warm (31.0oC) to very warm (32.5oC) throughout the period due to expected afternoon/evening cloud cover. However, temperatures are expected to have a real-feel or feels-like between 33.0oC to 44.0oC on most days. Mostly weak northeasterly to easterly winds of an average speed ranging between 10 km/h and 20 km/h are expected, with gusts ranging between 20 km/h to 60 km/h particularly in heavy showers or thundershowers. Moderate rainfall totals, mostly average wind speeds, warm days and moderate feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 3.0 to 8.0 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 low-60s to mid-70s, in terms of percentage. While during possible rainy days (13th, 14th, 15th, 16th and 21st), average daytime relative humidity values will be in the low-80s to mid-90s, in terms of percentage.

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