

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

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

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1 st	 70% chance of showers	1.0 to 15.0 mm of rainfall possible with higher amounts on the east coast of Trinidad/Tobago	Mostly cloudy with light to moderate/heavy showers	Warm  Max Temp 32.0°C	Feels like 37-43°C	60-76%	 Weak south-easterly 16 km/h Gust 26 km/h
2 nd	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	Warm  Max Temp 29.0°C	Feels like 32-38°C	75-90%	 Weak easterly 15 km/h Gust 35 km/h
3 rd	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	Warm  Max Temp 29.0°C	Feels like 32-38°C	75-90%	 Weak south-easterly 15 km/h Gust 35 km/h
4 th	 65% chance of light/moderate	0.1 to 5.0 mm of rainfall possible	Few cloudy patches with a shower or	Very Warm 	Feels like		 Moderate easterly 20 km/h















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	showers		two	Max Temp 32.5°C	33-43°C	62-67%	Gust 30 km/h
5 th	 45% chance of light/moderate showers	0.1 to 2.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very Warm  Max Temp 32.5°C	Feels like 33-43°C	62-67%	 Moderate easterly 25 km/h Gust 35 km/h
6 th	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	Warm  Max Temp 29.0°C	Feels like 32-38°C	65-93%	 Weak easterly 16 km/h Gust 26 km/h
7 th	 45% chance of light/moderate showers	0.1 to 2.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very Warm  Max Temp 32.5°C	Feels like 33-43°C	62-67%	 Moderate easterly 20 km/h Gust 30 km/h
8 th	 70% chance of showers	1.0 to 10.0 mm of rainfall possible with higher amounts on the east coast of Trinidad/Tobago	Partly cloudy to cloudy with showers	Warm  Max Temp 32.0°C	Feels like 34-40°C	65-91%	 Weak easterly 16 km/h Gust 26 km/h
				Warm			








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9 th	 70% chance of light/moderate showers	1.0 to 20.0 mm of rainfall possible	Partly cloudy to cloudy with showers	 Max Temp 30.0°C	Feels like 34-39°C	59-63%	 Moderate easterly 20 km/h Gust 30 km/h
10 th	 70% chance of light/moderate showers	1.0 to 20.0 mm of rainfall possible	Partly cloudy to cloudy with showers	Warm  Max Temp 30.0°C	Feels like 34-39°C	59-63%	 Moderate easterly 20 km/h Gust 30 km/h
11 th	 60% chance of light/moderate showers	0.1 to 5.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very warm  Max Temp 32.5°C	Feels like 36-43°C	64-70%	 Moderate easterly 16 km/h Gust 26 km/h
12 th	 80% chance of light/moderate showers	1.0 to 30.0 mm of rainfall with higher amounts on the east coast of Trinidad/Tobago	Cloudy with light to moderate/heavy showers	Warm  Max Temp 30.0°C	Feels like 32-35°C	76-81%	 Moderate easterly 20 km/h Gust 30 km/h
13 th	 65% chance	1.0 to 5.0 mm of	Few cloudy patches	Warm	Feels like	55-70%	 Moderate easterly

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	light/moderate showers	rainfall possible	with showers		35-40°C		20 km/h Gust 30 km/h
14 th	 70% chance of light/moderate showers	1.0 to 15.0 mm of rainfall possible	Partly cloudy to cloudy with showers	Max Temp 32.0°C Warm  Max Temp 32.0°C	Feels like 36-42°C	71-80%	 Moderate easterly 20 km/h Gust 30 km/h
15 th	 45% chance light/moderate showers	0.1 to 2.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very Warm  Max Temp 32.5°C	Feels like 36-42°C	71-80%	 Moderate easterly 20 km/h Gust 30 km/h

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

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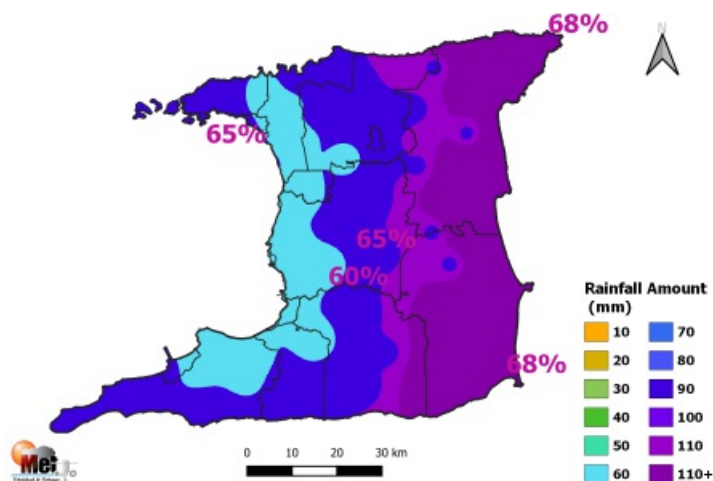


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (1st-15th) July 2021 and percentage probability of occurrence.

Eastern and North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 13.0 mm.

South-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 15.0 mm.

Southern areas

Moderate chance (65%) of mean daily rainfall up to 9.9 mm.

South-Western areas

Moderate chance (65%) of mean daily rainfall up to 8.1 mm.

Central, West-Central and inland areas

Moderate chance (60%) of mean daily rainfall up to 7.3 mm.

Northern, North-Western areas

Moderate chance (65%) of mean daily rainfall up to 8.3 mm.

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

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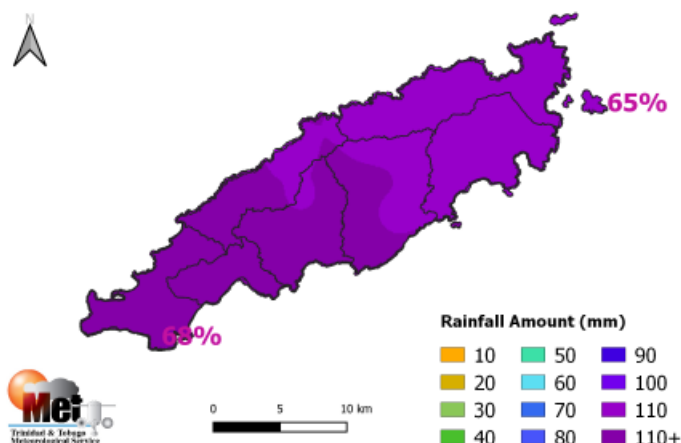


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (1st-15th) July 2021 and percentage probability of occurrence

North-Eastern areas

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

South-Western areas

Moderate chance (68%) of mean daily rainfall up to 12.8 mm.

Sun and Moon Positions in the Sky July 1st to 15th 2021

The sun is presently at the latitude of 23.2 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from July 1st to 15th will be 12 hours 44 minutes.

According to the moon phases, days 9th (New Moon phase) and 15th are good days for planting above-ground crops, 3rd, 4th and 8th are good days for planting below-ground crops. However, 4th, 5th, 6th, 7th are poor planting days. Barren days are on the 1st (Third Quarter phase), 2nd, 10th, 11th, 12th, 13th and 14th and be used for removing weeds and ploughing fields. Transplanting days will occur on the 3rd and 4th for all crops types.

Highlighted Possible Impacts on Agriculture:

Farmlands in Trinidad and Tobago had received low to moderate amounts of rainfall during the last dekad (21st-29th) of June. The mixed weather trend is expected to continue for this first 15-day period of July. Expect few relatively dry days, relatively wet days with clusters of wet days in the mix to occur during the period. The few sunny spells, light to moderate winds and moderate to high rainfall amounts in this fifteen-day period of July, will sustain average evaporation and average evapotranspiration rates overall.

There is a moderate probability (60%) chance of heat stress in young livestock, newly germinated and transplanted

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seedlings onto fields. Warm to very warm days with high feel like temperatures and frequent periods of moist crop vegetation, will increase the chances for fungi spread, fruit or root rot, insect pests and warm weather diseases to develop in crop beds.

During this 15-day period, river levels and soil moisture are expected to be moderate to high, adding to waterlogged soils, flooded fields and pastures at times. Farmers should be prepared with necessary alleviating actions such as portable water pumps, sandbags and elevated structures on the ground to store animals, seedlings, machinery and other equipment.

Weather Assessment for the period June (21st -29th) 2021.

During the period (21st to 29th) of June 2021, moderate amounts of rain fell in many areas of Trinidad and Tobago. In Trinidad days 23rd, 22nd, 26th and 28th, while in Tobago days 23rd and 24th, were the days that had moderate rainfall amounts. These rainfall days may have given rise to adequate soil moisture and low to moderate river levels, which have assisted rain-fed agricultural lands and pastures. On others days, mostly relatively dry to dry conditions predominated over both islands. The rainfall totals maps for the period 21st to 29th of June for Trinidad and Tobago are located below as figure 1 and figure 2.

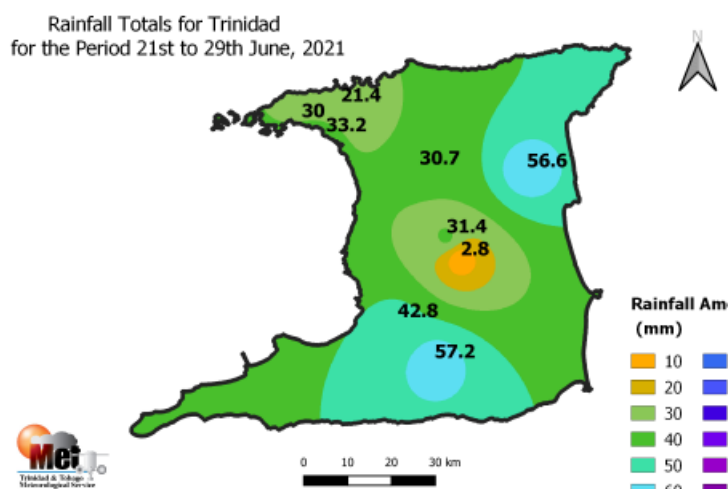


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 21st to 29th of June 2021.

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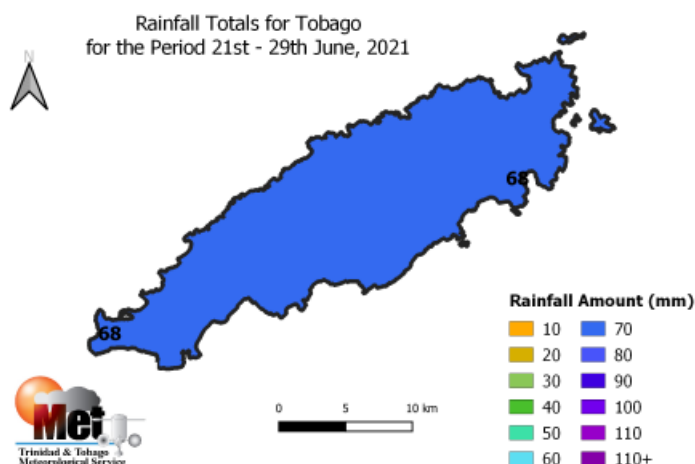


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 21st to 29th of June 2021.

Temperatures:

Temperatures remained warm during the period as maximum daytime temperatures ranged between 28.8 °C and 33.0 °C, in Trinidad.

In Tobago, temperatures were warm, with maximum daytime temperatures ranging between 27.7 °C and 31.6 °C.

Summary

Summary of Expected Weather: Sufficient rainfall amounts are expected on nine of the fifteen days. A mixture of wet/dry weather is expected for the 15-day period from 1st to 15th of July 2021. Wet days with rainfall amounts 10.0 mm or greater are expected mainly on the 1st, 2nd, 3rd, 6th, 8th, 9th, 10th, 12th and 14th, particularly in north-eastern, eastern, south-eastern and southern parts of Trinidad and over most areas of Tobago. However, relatively wet days with rainfall amounts of 5.0 mm or less are expected mainly on the 4th, 5th, 7th, 11th, 13th and 15th. Trinidad: Partly cloudy to cloudy spells are expected on days 1st, 2nd, 3rd, 6th, 8th, 9th, 10th, 12th and 14th will likely bring light to occasionally moderate/heavy rainfall across farmlands in the north-eastern, eastern, south-eastern and southern areas of Trinidad and all of Tobago. Daily rainfall totals are forecasted to be between 0.1 mm and 30.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 60.0 mm and 150.0 mm. The heaviest and most long-lasting rains are expected over farmlands in the northeast areas of Sangre Grande, Fishing Pond, Plum Mitán and Vega De Oropouche; eastern areas of Biche and near Mayaro and Moruga in the southeast/south. Otherwise, on days 4th, 5th, 7th, 11th, 13th and 15th, expect partly cloudy conditions with few showers. Tobago: Tobago will experience slightly wetter conditions as a whole as compared to Trinidad. The island will experienced wet days and relatively wet days over the 15-day period. Farmers should expect seven days of light to moderate/heavy rainfall amounts particularly on the 1st, 2nd, 3rd, 6th, 8th, 9th, 10th, 12th and 14th. The daily rainfall totals are forecasted to be between 1.0 mm and 30.0 mm across different farmlands. The fifteen-day rainfall totals ranging between 100.0 mm and 150.0 mm mostly

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across the island. However, on days 4th, 5th, 7th, 11th, 13th and 15th, expect partly cloudy conditions with few showers. Temperatures & Winds: Maximum temperatures are expected to remain warm (29.0oC) to very warm (32.0oC) throughout most of the period but can reach (32.5oC) on the 4th, 5th, 7th, 11th, 15th of July. However, temperatures are expected to have a real-feel or feels-like between 32.0oC to 43.0oC on most days. Moderate north-easterly to weak southeasterly winds of an average speed of 18 km/h are expected, with gusts ranging between 20 km/h to 35 km/h at times. Moderate to high rainfall totals, light to moderate winds, warm to very warm days and sensible feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 1.0 to 6.0 millimeters per day. Crop irrigation should be done when necessary, particularly on hot drier periods. Livestock should be provided with fresh cool water particularly on hot drier days to rehydrate. 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-50s to high-60s, in terms of percentage. While during possible rainy days of 1st, 2nd, 3rd, 4th, 6th, 7th, 9th and 13th average daytime relative humidity values will be in the mid-70s to low-90s, in terms of percentage.

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