

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Second Dekad (11th - 20th) 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 Bulletin for Farmers and Livestock Producers of Trinidad and Tobago for the 15-Day period (11th – 25th) of July 2021

Date	Weather			Temperature	Heat Real Feel	Day Moisture (Relative) (Humidity)	Wind
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11 th	 60% chance of showers	1.0 to 12.0 mm of rainfall possible	Mostly cloudy with light to moderate/heavy showers	Warm  Max Temp 32.0°C	Feels like 34-44°C	65-84%	Moderate easterly 30 km/h Gust 40 km/h
12 th	 80% chance of light/moderate showers	1.0 to 25.0 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 32-38°C	72-90%	 Weak easterly 16 km/h Gust 26 km/h
13 th	 45% chance of light/moderate showers	0.1 to 1.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very Warm  Max Temp 32.5°C	Feels like 33-43°C	62-66%	 Moderate northeasterly 20 km/h Gust 30 km/h
14 th	 40% chance of light/moderate showers	0.1 to 1.0 mm of rainfall possible	Few cloudy patches with a shower or two	Very Warm  Max Temp 33.0°C	Feels like 33-48°C	71-87%	 Moderate easterly 10 km/h Gust 20 km/h
15 th	 80% chance of	1.0 to 30.0 mm of rainfall with higher amounts on the east coast	Cloudy with light to moderate/heavy	Warm 	Feels like		 Weak easterly 10 km/h














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	light/moderate showers	of Trinidad/Tobago	showers	Max Temp 30.0°C	32-38°C	85-91%	Gust 20 km/h
16 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 32-38°C	65-83%	 Weak easterly 10 km/h Gust 20 km/h
17 th	 55% 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 33-43°C	50-64%	 Moderate easterly 20 km/h Gust 30 km/h
18 th	 55% chance of light/moderate showers	0.1 to 5.0 mm of rainfall possible	Few cloudy patches with a shower or two	Warm  Max Temp 32.0°C	Feels like 33-43°C	70-84%	 Moderate easterly 20 km/h Gust 30 km/h
19 th	 55% chance of light/moderate showers	0.1 to 3.0 mm of rainfall possible	Few cloudy patches with showers	Warm  Max Temp 32.0°C	Feels like 31-43°C	59-74%	 Moderate easterly 20 km/h Gust 30 km/h






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20 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 31.0°C	Feels like 32-38°C	72-83%	 Weak easterly 10 km/h Gust 20 km/h
21 st	 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 33.0°C	Feels like 36-43°C	60-64%	 Moderate easterly 20 km/h Gust 30 km/h
22 nd	 65% chance light/moderate showers	1.0 to 5.0 mm of rainfall possible	Few cloudy patches with showers	Warm  Max Temp 32.0°C	Feels like 35-40°C	55-72%	 Moderate north easterly 20 km/h Gust 30 km/h
23 rd	 65% chance light/moderate showers	1.0 to 5.0 mm of rainfall possible	Few cloudy patches with showers	Warm  Max Temp 32.0°C	Feels like 35-40°C	55-70%	 Moderate easterly 30 km/h Gust 40 km/h
							

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24 th	 65% chance of light/moderate showers	1.0 to 10.0 mm of rainfall possible	Partly cloudy to cloudy with showers	Warm  Max Temp 32.0°C	Feels like 36-42°C	53-66%	Moderate easterly 20 km/h Gust 30 km/h
25 th	 45% chance of light/moderate showers	1.0 to 5.0 mm of rainfall possible	Partly cloudy to cloudy with showers	Warm  Max Temp 32.0°C	Feels like 36-42°C	53-66%	 Moderate easterly 20 km/h Gust 30 km/h

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

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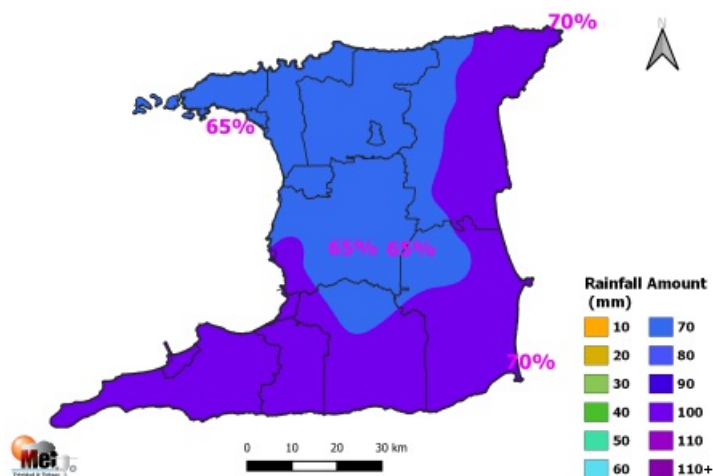


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11th-25th) July 2021 and percentage probability of occurrence.

Eastern and North-Eastern areas

Moderate chance (70%) of mean daily rainfall up to 9.2 mm.

South-Eastern areas

Moderate chance (70%) of mean daily rainfall up to 10.0 mm.

Southern areas

Moderate chance (70%) of mean daily rainfall up to 9.8 mm.

South-Western areas

Moderate chance (70%) of mean daily rainfall up to 9.9 mm.

Central, West-Central and inland areas

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

Northern, North-Western areas

Moderate chance (65%) of mean daily rainfall up to 7.5 mm.

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

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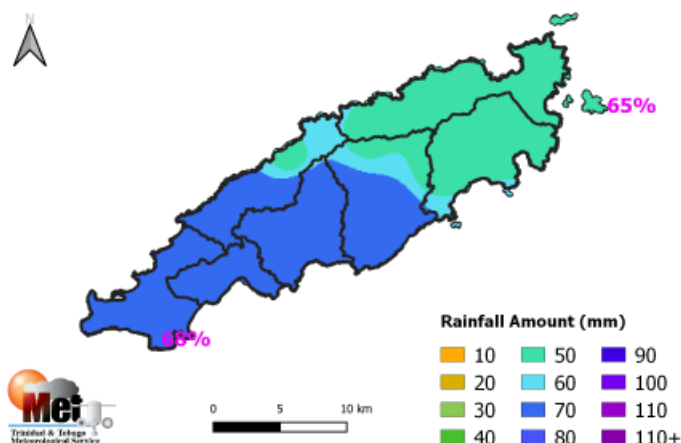


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (11th-25th) July 2021 and percentage probability of occurrence

North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 4.6 mm.

South-Western areas

Moderate chance (68%) of mean daily rainfall up to 7.0 mm.

Sun and Moon Positions in the Sky July 11th to 25th 2021

The sun is presently at the latitude of 22.2 degrees North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from July 11th to 25th will be 12 hours 42 minutes.

According to the moon phases, days 15th, 16th, 17th (First Quarter phase), 18th, 21st and 22nd are good days for planting above-ground crops, 25th is the only good day for planting below-ground crops. However, the 19th and 20th are barren days and the 23rd (Full Moon phase) and 24th are poor planting days. These days can be used for removing weeds, clearing land and ploughing fields.

Highlighted Possible Impacts on Agriculture:

Farmlands in Trinidad and Tobago had received moderate to high amounts of rainfall during the last dekad (1st-9th) of July. A slightly drier weather trend is expected to continue for this second 15-day period of July. Expect few relatively dry days, relatively wet days with few wet days in the mix to occur during the period. The few sunny spells, light to moderate winds and low to moderate rainfall amounts in this second fifteen-day period of July, will sustain average evaporation and average evapotranspiration rates overall.

There is a moderate probability (65%) 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 will become moderate to low, adding to drying out of some waterlogged soils, flooded fields and pastures. However, there are few wet days expected for this period. Therefore, farmers should remain prepared with necessary flood 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 July (1st -9th) 2021.

During the period (1st to 9th) of July 2021, moderate to high amounts of rain fell in many areas of Trinidad and Tobago due to the passage of tropical storm Elsa across the eastern Caribbean. In Trinidad and Tobago days 2nd, 3rd and 7th, were the days that had moderate-high rainfall amounts. These rainfall days may have given rise to high soil moisture and moderate to high river levels, which have assisted rain-fed agricultural lands and pastures. On others days, mostly relatively wet conditions predominated over both islands. The rainfall totals maps for the period 1st to 9th of July for Trinidad and Tobago are located below as figure 1 and figure 2.

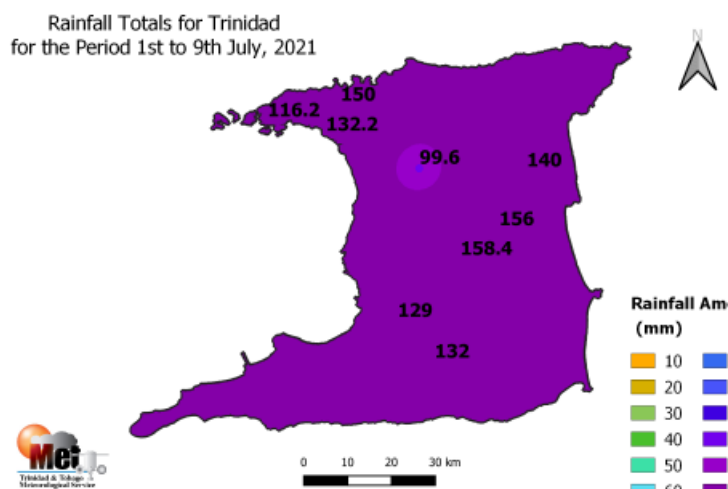


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 1st to 9th of July 2021.

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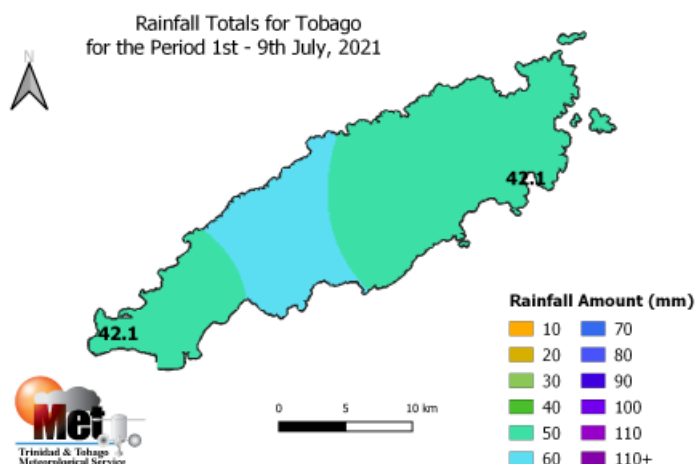


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during period 1st to 9th of July 2021.

Temperatures:

Temperatures remained warm during the period as maximum daytime temperatures ranged between 29.2 °C and 33.0 °C, in Trinidad.

In Tobago, temperatures were warm, with maximum daytime temperatures ranging between 27.7 °C and 31.7 °C.

Summary

Sufficient rainfall amounts are expected on six of the fifteen days. A mixture of wet and dry weather is expected for the 15-day period 11th to 25th of July 2021. Wet days with rainfall amounts 10.0 mm or greater are expected mainly on the 11th, 12th, 15th, 16th, 20th and 24th, particularly in north-eastern, eastern, south-eastern and southern parts of Trinidad and over south-western areas of Tobago. However, relatively wet days with rainfall amounts of 5.0 mm or less are expected mainly on the 13th, 14th, 17th, 18th, 19th, 21st, 22nd, 23rd and 25th. Trinidad: Partly cloudy to cloudy spells are expected on days 11th, 12th, 15th, 16th, 20th and 24th will likely bring light to occasionally moderate/heavy rainfall across farmlands in the north-eastern, eastern, south-eastern and southern areas of Trinidad. Daily rainfall totals are forecasted to be between 1.0 mm and 30.0 mm across different farmlands, with fifteen-day rainfall totals ranging between 75.0 mm and 100.0 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 13th, 14th, 17th, 18th, 19th, 21st, 22nd, 23rd and 25th, expect partly cloudy conditions with few showers. Tobago: Tobago will experience drier conditions as a whole as compared to Trinidad. The island will experience wet days and relatively wet days over the 15-day period mostly in the south-western areas. Farmers should expect six days of light to moderate/heavy rainfall amounts particularly on the 11th, 12th, 15th, 16th, 20th and 24th. 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 40.0 mm and 80.0 mm across the island. However,

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on days 13th, 14th, 17th, 18th, 19th, 21st, 22nd, 23rd and 25th, expect partly cloudy conditions with few showers. Temperatures & Winds: Maximum temperatures are expected to remain warm (30.0oC) to very warm (32.0oC) throughout most of the period but can reach (33.0oC) on the 14th and 21st of July. However, temperatures are expected to have a real-feel or feels-like between 32.0oC to 48.0oC on most days. Moderate north-easterly to weak southeasterly winds of an average speed of 20 km/h are expected, with gusts ranging between 30 km/h to 40 km/h at times. Moderate to high rainfall totals, mostly moderate winds, warm to very warm days and sensible feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 2.0 to 8.0 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 low/moderate to high, with average daytime relative humidity values in the mid-50s to low-70s, in terms of percentage. While during possible rainy days of 11th, 12th, 15th, 16th, 20th and 24th average daytime relative humidity values will be in the mid-70s to low-90s, in terms of percentage.

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