

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Dekad (21st - 30th) of September, 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 (21st – 5th) of September/October 2021













Date	Weather	Temperature	Heat Real Feel	Day Moisture (Relative)	Wind
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						(Humidity)	
21 st	 40% chance of showers	0.0 to 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower or two	Very Warm  Max Temp 33.5°C	Feels like 40-45°C	54-66%	 Weak south-easterly 10 km/h Gust 20 km/h
22 nd	 40% chance of showers	0.0 to 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower or two	Hot  Max Temp 34.0°C	Feels like 40-49°C	54-60%	 Weak south-easterly 10 km/h Gust 20 km/h
23 rd	 40% chance of showers	0.0 to 1.0 mm of rainfall is possible	Patchy cloudy skies with a light shower or two	Very Warm  Max Temp 33.5°C	Feels like 40-45°C	54-66%	 Weak south-easterly 10 km/h Gust 20 km/h
24 th	 65% chance of showers	10.0 to 20.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	Very Warm  Max Temp 33.0°C	Feels like 41-42°C	63-75%	 Weak south-easterly 10 km/h Gust













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25 th	 60% chance of showers	1.0 to 7.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 40-43°C	50-68%	 20 km/h Weak south-easterly 10 km/h Gust 20 km/h
26 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 40-43°C	50-68%	 Weak south-easterly 10 km/h Gust 20 km/h
27 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 40-43°C	50-68%	 Weak south-easterly 10 km/h Gust 20 km/h
28 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 40-43°C	50-68%	 Weak south-easterly 10 km/h Gust










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29 th	 60% chance of showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 40-43°C	50-68%	20 km/h  Weak south-easterly 10 km/h Gust 20 km/h
30 th	 65% chance of showers	10.0 to 20.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	Very Warm  Max Temp 32.0°C	Feels like 35-42°C	63-70%	 Weak south-easterly 10 km/h Gust 20 km/h
1 st	 75% chance of showers	10.0 to 20.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	Very Warm  Max Temp 32.0°C	Feels like 32-42°C	63-80%	 Weak south-easterly 10 km/h Gust 20 km/h
2 nd	 60% chance of light/moderate showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Very Warm  Max Temp	Feels like 39-44°C	52-63%	 Weak south-easterly 10 km/h Gust

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				33.5°C			20 km/h
3 rd	 60% chance of light/moderate showers	1.0 to 5.0 mm of rainfall is possible	Partly cloudy to cloudy with showers	Very Warm  Max Temp 33.5°C	Feels like 39-44°C	52-63%	 Weak south-easterly 10 km/h Gust 20 km/h
4 th	 75% chance of showers	10.0 to 20.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	Very Warm  Max Temp 32.0°C	Feels like 41-42°C	63-70%	 Weak south-easterly 10 km/h Gust 20 km/h
5 th	 75% chance of showers	10.0 to 20.0 mm of rainfall is possible	Partly cloudy with light to moderate/heavy showers	Very Warm  Max Temp 32.0°C	Feels like 41-42°C	63-70%	 Weak south-easterly 10 km/h Gust 20 km/h

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Trinidad Rainfall Forecast for the 15-Day period of September/October (21st –5th) 2021

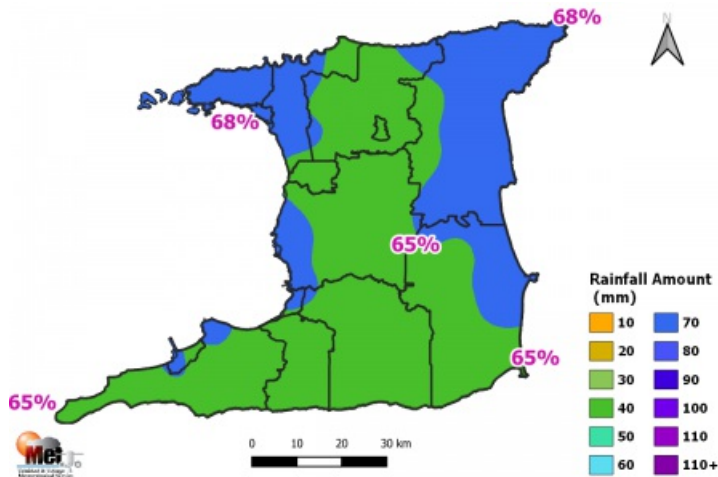


Figure 1. Rainfall map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the 15-day period (21st-5th) September/October 2021 and percentage probability of occurrence.

Eastern, and North-Eastern areas

Moderate chance (68%) of mean daily rainfall up to 6.5 mm.

South-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 4.9 mm.

Southern areas

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

South-Western areas

Moderate chance (65%) of mean daily rainfall up to 4.5 mm.

Central, West-Central, and inland areas

Moderate chance (65%) of mean daily rainfall up to 4.7 mm.

Northern, North-Western areas

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

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Tobago Rainfall Forecast for the 15-Day period of September/October (21st -5th) 2021

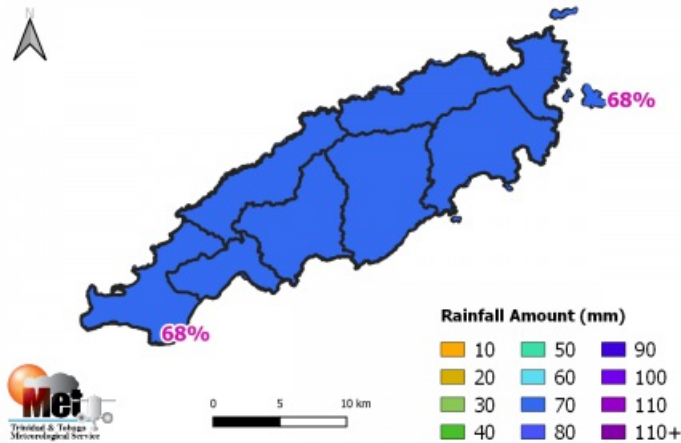


Figure 2. Rainfall map of Tobago showing expected mean rainfall totals for districts across Trinidad during the 15-day period (21st-5th) September/October 2021 and percentage probability of occurrence.

North-Eastern areas

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

South-Western areas

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

Sun and Moon Positions in the Sky September/October (21st -5th) 2021

The sun is presently at 1.0 degree North latitude and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from September 21st will be 12 hours 07 minutes, reducing steadily to 11 hours and 59 minutes by the 5th October. 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, only on the 5th October is a good day for planting aboveground crops, while the 23rd, 24th, 28th (Third Quarter phase) and 29th of September and the 5th of October are good days for planting belowground crops. However, the 21st, 22nd, 25th, 27th, 30th of September and the 1st, 2nd, 3rd and 4th of October are poor planting days. These days should be used for removing weeds, clearing land and ploughing fields.

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Highlighted Possible Impacts on Agriculture:

Farmlands in Trinidad and Tobago received low amounts of rainfall during the last dekad (11th-19th) of September. During this third fifteen-day forecast period of (21st to 5th) September/October, expect more rainfall amounts to occur as compared to the last fifteen-day (11th to 25th) forecast period. The hot and sunny days will give way to increasingly wetter conditions throughout the country. The light winds and low to moderate rainfall amounts in this third fifteen-day period of September/October will sustain average evaporation and evapotranspiration rates overall.

On very warm to hot days there is a high probability (85%) chance of heat stress in young livestock, newly germinated and transplanted seedlings onto fields. There is also a high probability (85%) chance for fungi spread, fruit and/or root rot, insect pests and warm weather diseases to develop in crop beds.

During this fifteen-day period, river levels will move from low levels to moderate or possibly 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 September (11th-19th) 2021.

Mostly dry days with low rainfall amounts occurred across Trinidad and Tobago. Only on the 18th of September did a rainy day occurred, while on other days mostly sunny and dry conditions prevailed. Hot days, warm winds and low river levels have reduced moisture content in soils and may have stymied crop growth and development in agricultural lands and vegetation growth in pastures. The rainfall totals maps for the period 11th to 19th of September for Trinidad and Tobago are located below as figure 1 and figure 2.

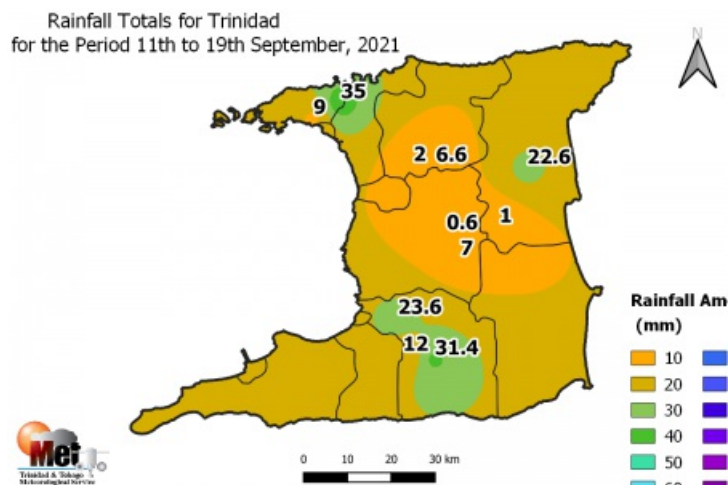


Figure 1. Rainfall map of Trinidad showing measured rainfall totals for varying districts during period 11th to 19th of September 2021.

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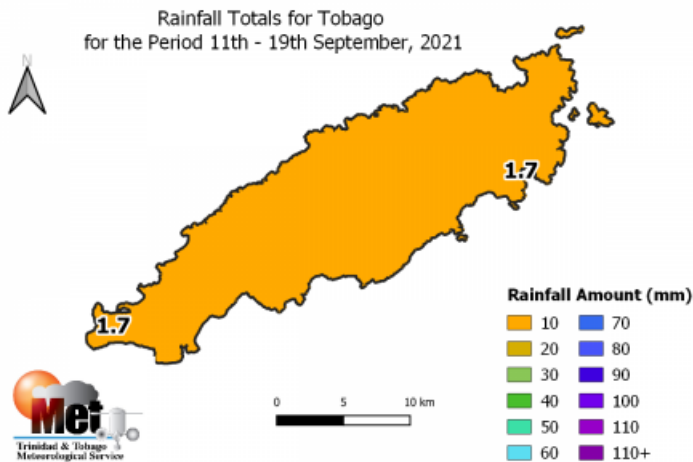


Figure 2. Rainfall map of Tobago showing measured rainfall totals for varying districts during the period 11th to 19th of September 2021.

Temperatures:

Temperatures were warm to hot during the period as maximum daytime temperatures ranged between 33.0 °C and 33.9 °C, in Trinidad.

In Tobago, temperatures were warm, with maximum daytime temperatures ranging between 31.6 °C and 32.8 °C.

Summary

Summary of Expected Weather: Low to moderate rainfall amounts are expected on twelve of the fifteen days. A mixture of wet (rainfall amounts greater than 10.0 mm), relatively wet (rainfall amounts ranging between 1.0 mm to 10.0 mm) and relatively dry (rainfall amounts 1.0 mm or less) days are expected for the 15-day period 21st to 5th of September/October 2021. Five wet days with rainfall amounts greater than 10.0 mm are expected on the 24th, 30th, 1st, 4th and 5th mostly in northwestern, northeastern, eastern, southwestern and central parts of Trinidad and most of Tobago. However, seven relatively wet days with rainfall amounts of 1.0 mm to 7.0 mm are expected on the 25th, 26th, 27th, 28th, 29th, 2nd and 3rd; and three relatively dry days with rainfall amounts of 1.0 mm or less are expected on the 21st, 22nd and 23rd. Trinidad: Partly cloudy to cloudy spells are expected on the 24th, 30th, 1st, 4th and 5th, which will likely bring light to occasionally moderate/heavy rainfall across farmlands in the northwestern, northeastern, eastern, southwestern and central areas of Trinidad. 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 40.0 mm and 70.0 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 Mitan and Vega De Oropouche; southwestern areas of Point Fortin, La Brea and Penal and central areas of Claxton Bay, Couva, Felicity and Charlieville. On the 25th, 26th, 27th, 28th, 29th, 2nd and 3rd, expect partly cloudy conditions with light to moderate showers with daily rainfall amounts ranging between 1.0 mm to 7.0 mm, while on the 21st, 22nd and 23rd, expect patchy cloudy skies with one or two showers with daily rainfall

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amounts 1.0 mm or less. Tobago: Tobago will experience similar conditions as compared to Trinidad. Farmers should expect five days of light to moderate/heavy rainfall amounts particularly on the 24th, 30th, 1st, 4th and 5th. The daily rainfall totals are forecast to be between 10.0 mm and 20.0 mm across most farmlands. The fifteen-day rainfall totals will average 70.0 mm across the island. However, on the 25th, 26th, 27th, 28th, 29th, 2nd and 3rd, expect partly cloudy conditions with few light to moderate showers with daily rainfall amounts ranging between 1.0 mm to 7.0 mm, while on days 21st, 22nd and 23rd, expect patchy cloudy skies with one or two showers with daily rainfall amounts 1.0 mm or less. Temperatures & Winds: Maximum temperatures are expected to remain warm (32.0oC) to very warm (33.5oC) throughout most of the period but can reach (34.0oC) on 22nd September. However, temperatures are expected to have a real-feel or feels-like between 38.0oC to 46.0oC on most days. Mostly weak southeasterly winds of an average speed of 10 km/h are expected, with gusts ranging between 20 km/h to 54 km/h particularly in heavy showers or thundershowers. Low to moderate rainfall totals, mostly low average wind speeds, very warm to hot days and moderate to high feels-like temperatures will sustain average evapo-transpiration rates in crops ranging between 3.0 to 11.0 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 to moderate, with average daytime relative humidity values in the low-50s to low-60s, in terms of percentage. While during possible rainy days (24th, 30th, 1st, 4th and 5th), average daytime relative humidity values will be in the low-70s to high-80s, in terms of percentage.

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