

Agromet Bulletin

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Issue date: 2021-03-21

Weather Forecast Bulletin for Farmers and Livestock Producers of Trinidad and Tobago for the Last 11 Days (21st - 31st) of March 2021

11-day Weather Forecast for Farming, March (21st – 31st) 2021

		Weather		Temperature	Heat Real Feel	Day Moisture (Relative)	Wind
21 st	÷,		Dry and mostly sunny	Warm Max Temp 30.8°C	Feels like 33-35°C	(Humidity) 55-65 %	North- easterly at 13 km/h Gust 22 km/h
22 nd	10% chance brief scanty showers	0.5 mm rainfall possible	Mostly sunny	Warm Max Temp 31.3°C	Feels like 34-37°C	55-65%	Easterly at 13 km/h Gust 22 km/h
23 rd	20% chance brief early morning showers	0.5 mm rainfall possible	Mostly sunny	Warm Max Temp 30.7°C	Feels like 34-37°C	59-71%	Easterly at 19km/h Gust 28 km/h
24 th	***		Dry and mostly sunny	Warm Max Temp 31.3°C	Feels like 34-36°C	53-61%	Easterly at 19 km/h Gust 28 km/h
25 th	40% chance brief showers	0.5 to 1.0 mm of rainfall possible	Partly cloudy	Warm Max Temp 30.2°C	Feels like 34-37°C	65-75%	North- easterly at 13 km/h Gust 28 km/h
26 th	80% chance light to heavy showers	5.0 to 10.0 mm of rainfall possible	Mostly cloudy	Cool Max Temp 28.6°C	Feels like 32-33°C	70-75%	North- easterly at 19 km/h Gust 30 km/h

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27 th	60% chance isolated showers	1.0 to 2.0 mm of rainfall possible	Occasionall y cloudy	Warm Max Temp 30.5°C	Feels like 34-36°C	63-70%	Easterly at 22 km/h Gust 30 km/h
28 th	80% chance occasional showers	2.0 to 3.0 mm of rainfall possible	Occasionall y cloudy	Warm Max Temp 30.0°C	Feels like 35-37°C	69-77%	Easterly at 20 km/h Gust 28 km/h
29 th	80% chance occasional showers	1.0 to 2.0 mm of rainfall possible	Occasionall y Cloudy	Cool Max Temp 29.8°C	Feels like 35-37°C	70-80%	Easterly at 15 km/h Gust 22km/h
30 th	40% chance light showers	Less than 1.0 mm rainfall possible	Partly Cloudy	Warm Max Temp 31.1°C	Feels like 35-37°C	60-67%	Easterly at 15 km/h Gust 22km/h
31 st	10% chance brief scanty showers	0.5 mm rainfall possible	Mostly sunny	Warm Max Temp 31.3°C	Feels like 34-37°C	55-65%	Easterly at 15 km/h Gust 22km/h

Sun and Moon Positions in the Sky March 21st to 31st 2021

The sun is presently at the equator (latitude 0.0 degrees) and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from March 21st to March 31st will be between 12.0 hours and 12 hours 11 minutes.

The moon continues in its brightening phase and enters the first quarter on the 21st, which by tradition is considered as a fertile time. The moon will grow in brightness until it becomes a full moon on March 28th. From past knowledge, it known that seeds germinate best when sown a few days ahead of the full moon, while leafy crops, plants and above ground crops have the best growth rate during the period from first quarter to full moon. During this period, the moon allows better uptake and more absorbing of water and moisture by plants.



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Trinidad Rainfall Forecast for the Last 11 Days of March (21st – 31st) 2021

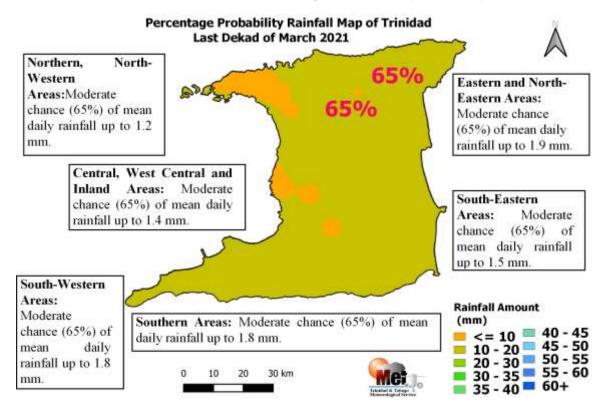


Figure 1. Rainfall Map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the last eleven (11) days of March 2021 and percentage probability of occurrence.

Eastern and North-Eastern areas

Moderate chance (65%) of mean daily rainfall up to 1.9 mm.

South-Eastern areas

Moderate chance (65 %) of mean daily rainfall up to 1.5 mm.

Southern areas

Moderate chance (65 %) of mean daily rainfall up to 1.8 mm.

South-Western areas

Moderate chance (80 %) of mean daily rainfall up to 1.8 mm.

Northern, North-Western areas

Moderate chance (80 %) of mean daily rainfall up to 1.2 mm.

Central, West-Central and inland areas

Moderate chance (80 %) of mean daily rainfall up to 1.4 mm.

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Tobago Rainfall Forecast for the Last 11 Days of March (21st – 31st) 2021

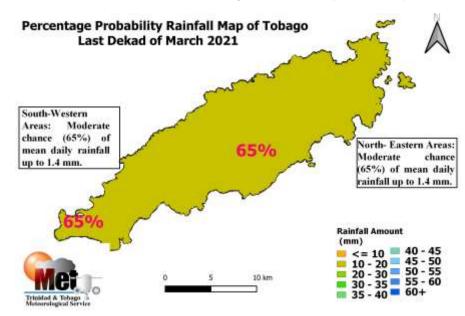


Figure 2. Rainfall Map of Tobago showing expected mean rainfall totals for districts across Tobago during the last eleven days of March 2021 and percentage probability of occurrence.

North-Eastern areas

Moderate chance (65 %) of mean daily rainfall up to 1.4 mm.

South-Western areas

Moderate chance (65 %) of mean daily rainfall up to 1.4 mm.

Summary of Expected Weather: Apart from scanty rainfall on the 22nd and 23rd, dry and mostly sunny conditions will dominate the next 4 days (March $21^{st} - 24^{th}$). However, a trail of moisture is expected to come across both islands from the 25th to the 29th. This is expected to bring light to heavy occasional showers in most crop farming areas. Maximum temperatures are expected to remain warm throughout the period and range between 30.0°C and 31.3°C, except on the two (2) wettest days when it will dip below 30°C. However, temperatures are expected to feel like 34°C to 37°C on most days, even with moderate to strong winds. Low rainfall totals, high temperatures, high feels-like values, low daytime humidity values, and relatively strong winds during the first four days will increase evapo-transpiration rates in crops and increase drying and heat stress. This will increase the need to irrigate and the amount of water given to livestock, but farmers should practice water conservation and use only the amount of water needed. Given the forecast conditions for the first 4 days, farmers should aim to keep moisture in crop root areas by mulching. Farmers should also pay attention to the daily forecast and watch-out for flooding on the wettest days.

Trinidad: Northeast and east Trinidad, in farming and food crop areas such as Plum Mitan and Vega de Oropouche, Esmeralda in Cunupia and Tabaquite, in central Trinidad, along with Mora Valley and



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Moruga in southeast, can expect close to 20 mm of rainfall over the eleven (11) days of the forecast period. Moderate rainfall totals, but not as much as in the previous week, are expected to return to southwestern areas, such as Penal, the South Oropouche river basin and environs from the 25th -29th. During this period, the 26th, 28th and 29th are expected to be the wettest days across farmlands in Trinidad. Farmers can expect up to 12.0 mm or approximately half an inch of rain on any of these days. Farmlands in northwestern areas such as Paramin and Chaguaramas will likely get less rainfall totals than other areas, with possible totals between 5.0 mm and 12.0 mm over the period.

Tobago: Farmers should expect dry and mostly sunny conditions from the 21st - 25th, but pockets of rainfall is likely to develop in Tobago overnight on the 22nd into the morning of the 23rd. The island is also expected feel some of the effects of the trail of moisture from the 26th to 29th, but not as much as Trinidad. The moisture will still be sufficient to increase rainfall occurrence and farmers should expect the 28th to be the wettest day of the period, when farmlands, especially those in the northeast of the island can get up to 12 mm or half an inch of rain.

Temperatures & Winds: Temperatures are expected to remain warm throughout the period except on the 26th and 29th, when maximum temperatures are likely to remain below 30.0°C. The highest maximum temperatures are expected on the 22nd, 24th, 31st and may climb close to 31.3° C on these days. Over the first four days (21st -24th) moisture levels are expected to be low with average daytime relative humidity values in 50s to 60s, in terms of percentage. Wind speeds are expected to be moderate to strong and may range between 13 km/h and 22 km/h, with gusts up to 30 km/h. This will increase evaporation and evapotranspiration rates significantly and will also increase drying and heat stress possibilities, but especially so in young livestock, newly germinated and transplanted seedling. Overall, winds are expected to be light to moderate easterlies with speeds between 15-22 km/h, gusting to as much as 28-30 km/h on some days.

Highlighted Possible Impacts

Less rainfall in northwest Trinidad than elsewhere over the second 10 days of March has already led to drier conditions in farming areas of Paramin, Chaguaramas and surroundings. The expected dry conditions over the next four days will add to further drying in these areas. Areas in the southwest, such as Penal, the South Oropouche river basin and surrounding areas have already received fairly large amounts of rainfall during the previous 10 days. Tobago is currently experiencing moderate drying conditions, which is expected to continue over most of the last 11 days of March. The anticipated rainfall, moist and warm conditions during are expected to maintain sufficient soil moisture across Trinidad and Tobago for crop needs, especially from Mach 25th to 31st. Farmers should expect an increase in evaporation during the first four days as hot weather is set to dominate. This will increase heat stress and the need to irrigate, but farmers should use only sufficient water. With warm and hot temperatures at this time and occasional moist vegetation, there are increased chances for fungi spread, insect pests and warm weather diseases to develop. Given the forecast conditions, farmers should aim to keep moisture in crop root areas for a longer time after rainy periods and wetting, by covering crops root areas with grass (mulching).



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Preliminary Rainfall and Temperature Outlook for First Ten Days of April 2021

The preliminary forecast for the first 10 days of April indicates mixed conditions, starting with occasional rainfall over the first three days. Maximum day temperatures are expected to continue to increase and become slightly hotter, on average

Weather Assessment for the period March (11th -20th) 2021.

During the second 10 days of March, beneficial rainfall for farming occurred on seven days in Trinidad and four days in Tobago, but some areas received more than twice the amount of rainfall other areas received. Temperatures remained mostly warm during the period as maximum temperatures ranged between 26.7° C, and 31.2° C, in Trinidad. In Tobago, temperatures were similar, with maximum daytime temperatures ranging between 29.3° C and 31.7° C. Based on the rainfall and temperature, evaporation rates were mild to moderate in both islands. These conditions would have assisted with maintaining good soil moisture and keeping crops' roots cool and would have reduced crop evapotranspiration. The warm temperatures at this time and occasional moist crop areas would have increased the chance for agriculture fungi to spread and for insect pests and warm weather diseases to increase in occurrence.

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 of 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 Rainfal	l	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		



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