

Agromet Bulletin

Page 1 of 7

Weather Forecast Bulletin for Farmers and Livestock Producers of Trinidad and Tobago for the First 10 Days $(01^{st}-10^{th})$ of April 2021

10-day Weather Forecast for Farming, April (01st - 10th) 2021

		Weather		Temperature	Heat Real Feel	Day Moisture (Relative) (Humidity)	Wind
01 st	**		Largely dry and mostly sunny	Max Temp 31.3°C	Feels like 33-34°C	49-55%	moderate easterly 22 km/h Gust 29 km/h
02 nd	60% chance isolated showers	1.0 to 3.0 mm rainfall possible	Partly cloudy with moderate showers	Max Temp 30.0°C	Feels like 34-37°C	67-76%	moderate easterly 22 km/h Gust 29 km/h
03 rd	*		Partly cloudy but dry	Warm Max Temp 31.2°C	Feels like 34-38°C	55-69%	weak easterly 14 km/h Gust 24 km/h
04 th	80% chance small to moderate amounts of rainfall	2.0 to 5.0 mm rainfall possible	Partly cloudy with light to occasional moderate showers	Warm Max Temp 30.4°C	Feels like 33-36°C	70-83%	weak easterly 14 km/h Gust 24 km/h
05 th	80% chance with moderate amounts of rainfall	5-9 mm of rainfall possible	Mostly cloudy with much Moderate to occasional heavy showers	Warm Max Temp 29.5°C	Feels like 33-36°C	73-86%	weak south- easterly 13 km/h Gust 24 km/h



Agromet Bulletin Page 2 of 7

06 th	90% chance moderate to considerable amount of rainfall	7-15 mm of rainfall possible	Cloudy with isolated showers	Max Temp 31.2°C	Feels like 35-38°C	59-69%	weak south- easterly 14 km/h Gust 24 km/h
07 th	10% chance brief isolated rainfall	0.1 to 0.3 mm of rainfall possible	Partly cloudy and mostly dry	Max Temp 31.6°C	Feels like 35-37°C	55-62%	moderate south-easterly 22 km/h Gust 29 km/h
08 th	*		Mainly sunny and dry	Max Temp 31.8°C	Feels like 35-37°C	52-62%	Moderate easterly at 20 km/h Gust 28 km/h
09 th	*		Fine weather mostly sunny and dry	Max Temp 32.0°C	Feels like 35-38°C	55-65%	Moderate easterly at 20 km/h Gust 28 km/h
10 th	**		Fine weather mostly sunny and dry	Max Temp 32.3°C	Feels like 35-38°C	50-60%	Moderate easterly at 20 km/h Gust 28 km/h

Sun and Moon Positions in the Sky April 01st to 10th 2021

The sun is presently at the equator (latitude 4.0 degrees) and with this position, the day-length or number of sunlight hours in Trinidad and Tobago from April 01st to April 10th will be between 12.0 hours and 12 hours 14 minutes.

The moon has begun its darkening phase as it moves from the full moon four days ago, to enter the third quarter on April 04th, which by tradition, is considered as good time to sow or plant below



Agromet Bulletin

Page 3 of 7

ground crops, especially root crops, fertilize, transplant and harvest crops. From the 5th to the 10th the moon phase, traditionally is not good for planting.

Trinidad Rainfall Forecast for the First 10 Days of April (01st - 10th) 2021

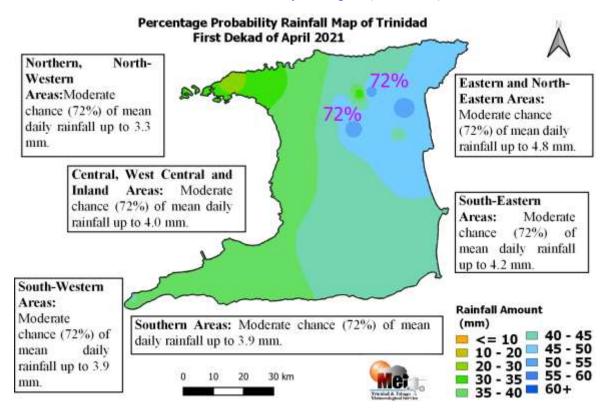


Figure 1. Rainfall Map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the first ten (10) days of April 2021 and percentage probability of occurrence.

Eastern and North-Eastern areas

High chance (72%) of mean daily rainfall up to 4.8 mm.

South-Eastern areas

High chance (72 %) of mean daily rainfall up to 4.2 mm.

Southern areas

High chance (72 %) of mean daily rainfall up to 3.9 mm.

South-Western areas

High chance (72 %) of mean daily rainfall up to 3.9 mm.

Northern, North-Western areas

High chance (72 %) of mean daily rainfall up to 3.3 mm.

Central, West-Central and inland areas

High chance (72 %) of mean daily rainfall up to 4.0 mm.



Agromet Bulletin Page 4 of 7

Tobago Rainfall Forecast for the First 10 Days of April (01st - 10th) 2021

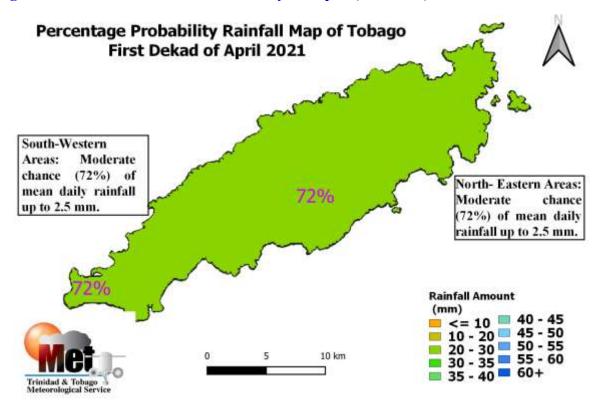


Figure 2. Rainfall Map of Tobago showing expected mean rainfall totals for districts across Trinidad during the first ten (10) days of April 2021 and percentage probability of occurrence

North-Eastern areas

High chance (72%) of mean daily rainfall up to 2.5 mm.

South-Western areas

High chance (72 %) of mean daily rainfall up to 2.5 mm.

Summary of Expected Weather: Useful, small to considerable rainfall amounts are expected on 4 of the 10 days. After a dry start on the 01st, 1.0 mm to 3.0 mm of rainfall is expected on the 2nd. Partly cloudy conditions on the 4th with small amounts of rainfall will increase to mostly cloudy on the 5th with an increase in rainfall totals as well. These conditions are expected to last into the 6th and become more cloudy with the 6th likely to be the wettest day. Following this, a drying trend is expected to develop, persist and strengthen over the last 4 days, as fine weather with long sunny spells is set to dominate. This is expected to continue into the second 10 days of April. Farmers should harvest water now.

Maximum temperatures are expected to remain warm (29.5°C) to very warm (31.8°C) throughout most of the period, but are likely to become hot (32.0°C to 32.3°C) on the 9th and 10th. However, temperatures are expected to have a real-feel or feels-like between 33.0°C to 38.0°C on most days, even with moderate winds. Low rainfall totals, high temperatures, high feels-like values, low daytime



Agromet Bulletin

Page 5 of 7

humidity values, and relatively strong winds during the last four days will increase evapotranspiration 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. Farmers should also pay attention to the daily forecast and watchout for flooding on the wettest days.

Trinidad:

Partly cloudy spells on the 2nd is likely to bring light to occasionally moderate afternoon rainfall across farmlands in the southeast and northeast areas of Trinidad. Partly cloudy with light to occasional moderate showers are also expected on the 4th but over wider areas. Farmers should expect an increase in cloudiness on the 5th as wet conditions are forecast to increase, bringing more spells of moderate to occasionally heavy showers over widespread areas. This is expected to continue on the 6th which is expected to be the wettest day of the period, when rainfall totals are forecasted to be between 7.0mm and 15.0mm across different farmlands. The heaviest and most persistent rains are expected over farmland in the northeast near Plum Mitan and Vega De Oropouche, and near Mora Valley and Moruga in southeast. Otherwise, mostly sunny, at times partly cloudy but generally fine and dry with plenty of warm sunshine will dominate the other days. Ten days rainfall totals are expected to range between 20mm and 50 mm. Following the 6th, an increasingly drying trend is expected to develop and persist until the end of the period during which fine weather with long sunny spells are expected.

Tobago:

Farmers should expect largely dry conditions with mostly sunny spells, fine and warm weather in Tobago, over the 10 days. Like Trinidad, rainfall is likely on the 4th and 5th but amounts are not expected to be as large. Tobago is expected to get isolated showers from partly to occasionally cloudy conditions with small to moderate rainfall amounts. Ten day rainfall totals are not expected to exceed 25 mm on the island. Following the 5th, dryness will return and increase throughout the rest of the period, as a drying trend is set to take hold across the island.

Temperatures & Winds: Temperatures are expected to remain warm to very warm throughout the period, except on the 4^{th} and 5^{th} , when maximum temperatures are likely to dip to, or go below 30.0°C. Farmers should expect an increase in heat from the 6^{th} as maximum temperatures are expected to climb close to 32° C. The real-feel or feels-like temperatures are expected to range between 33.0° C and 37.0° C on most days, but with very good chances for the real-feel or feels-like temperatures around 38.0° C on 6^{th} , 9^{th} and 10^{th} .

Over the last five days $(6^{th} - 10^{th})$ 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 light to moderate with speeds between 13 km/h and 22 km/h and gusts up to 30 km/h.

Highlighted Possible Impact



Agromet Bulletin

Page 6 of 7

Farmlands in the northeast, southeast and central areas have already received fairly large amounts of rainfall during the last 10 days of March. Wet days during the first five days will continue to benefit farming in these areas, but the lengthy sunny spells and moderate winds from the 6th 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. Continuing of mostly dry conditions in Tobago will add to existing moderate drying over the island, leading to increased dryness and need to irrigate crops. Farmers are encouraged to harvest the available rainfall during the period as a dry trend is forecast to take hold from the 6th onward.

The anticipated rainfall, moist and warm conditions are expected to maintain sufficient soil moisture across Trinidad and Tobago for crop needs, especially from April 01st -06th, 2021. 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).

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

The preliminary forecast for the second 10 days of April indicates a drying trend is expected to develop and dominate the period. Maximum day temperatures are expected to continue to increase with a hot spell likely during the period.

Weather Assessment for the period March (21st -31st) 2021.

During the last 11 days of March 2021, beneficial rainfall for farming occurred on most days in Trinidad. Following 6 consecutive dry days, Tobago received moderate rainfall amounts on the 26th and 28th. Wet spells from the 26th -29th in both islands brought beneficial rainfall for agriculture, but some areas received more than others. Temperatures remained mostly warm during the period as maximum temperatures ranged between 27.6° C, and 31.2° C, in Trinidad.

In Tobago, temperatures were warmer, with maximum daytime temperatures ranging between 29.9° C and 32.0° 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

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Agromet Bulletin Page 7 of 7

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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 R	ainfall	Rainfall below 50% of the average		
Much above Normal R	ainfall	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		