

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Dekad (21st -28th) of February 2018.

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 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 Assessment for the Second Dekad (11th – 20th) of February 2018.

Days 14th, 15th and 19th of the second dekad turned out to be relative wet days over most of the country. The ten-day rainfall total recorded at Piarco Trinidad, was 2.9 mm, significantly less than the expected range of 10.0 mm to 20.0 mm. However, El Reposo and other northeastern districts had expected rainfall amounts. El Reposo reported 28.5 mm well within the 20.0 mm to 30.0 mm range forecasted. Central districts of Carapichiama, Preysal and Couva had rainfall totals of 0.2 mm, 9.7 mm and 1.8 mm respectively, and they were well outside of the 10.0 mm to 20.0 mm range forecasted. Similarly, southern districts such as Princess Town, Penal, San Fernando and Chatham had measly rainfall totals of 7.6 mm, 1.5 mm, 0.0.mm and 4.4 mm respectfully. Northern and Northwestern districts of Tunapuna and West Moorings had rainfall totals of 7.0 mm and 8.1 mm

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respectively, well outside of the 10.0 mm to 20.0 mm range forecasted. However, Carenage had a total of 20.6 mm, which was just inside the forecasted range of 20.0 mm to 30.0 mm.

Similarly, Tobago had significantly less rainfall amounts than expected. ANR Robinson airport had rainfall amount of 4.6 mm, which was well below the forecasted range of 10.0 mm to 20.0 mm. Neighboring districts' such as Bethel, Mount Pleasant and Buccoo experienced similar rainfall amounts as well.

Temperatures continue to be cool in Trinidad and Tobago. Trinidad's maximum temperature went up to 31.0 °C. At the same time Tobago's maximum got up to 30.7 °C. Conversely, lowest temperatures recorded were 19.8 °C in Trinidad and 22.4 °C in Tobago. The average humidity for both islands remained in the mid-sixties but went up to low seventies during rainfall events. The mostly sunny and relatively dry conditions must have warranted frequent irrigation of crops.

Expected Weather for Third Dekad $(21^{st} - 28^{th})$ of February 2018 and Likely Impact on Agriculture.

The forecast for the Third dekad of February indicates that farmers can expect similar amounts of rainfall as compared to the second dekad. Farmers can expect mostly relatively dry days, with few relatively wet days throughout the dekad. The ten-day period totals forecasted to range between 10.0 mm and 15.0 mm in Trinidad also forecasted to range between 0.0 mm and 10.0 mm in Tobago.

The average daily temperatures across Trinidad and Tobago are likely to range between 25.8 ^oC and 27.0 ^oC. Expect the highest maximum temperature over the dekad to peak near 32.4 ^oC in Trinidad, while the lowest night to early morning minimum temperature could dip below 20.5 ^oC in Trinidad. Especially along the foothills and valleys during relatively cloud free nights. During the dekad, in Tobago, the highest maximum temperature will peak near 30.9 ^oC, while the lowest minimum temperature will be dip below 21.8 ^oC, mostly during relatively cloud free nights.

For both Trinidad and Tobago, the daytime relative humidity (RH) is likely to range between 48% and 69%. However, during relatively wet days, RH percentage values will range around 70% to 75%. At the same time, winds speeds are expected to range between 20km/h and 36 km/h. In addition, evaporation rates are expected to range between 3.6 mm/day and 9.4 mm/day, but can be slightly more during warmer and windier periods.

Mostly, relatively dry conditions over this dekad, will definitely increase the need for frequent irrigation. In the event that relatively wet conditions occur, possible reduction in the frequency of irrigation is possible. The expected relatively dry and windy conditions will be unfavourable for some agricultural insect pests, fungi and diseases to develop and thrive. Moreover, the expected daytime wind speeds, together with the funneling effect of wind along narrow paths and undulating landscapes, may affect seedlings negatively by causing seedlings' stems and leaves to be damaged. In

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addition, strong winds may hamper some types of fertilizer application and crops' ability to retain flowers.

Trinidad's Mean Daily Rainfall Forecast for the Third Dekad of February (21st –28th) 2018.

Northern & Northwestern areas:

Moderate chance (66%) of mean daily rainfall up to 1.2 mm.

North-Eastern and Eastern areas:

Moderate chance (68%) of mean daily rainfall up to 1.5 mm.

Central, West-Central and inland areas:

Moderate chance (65%) of mean daily rainfall up to 1.1 mm.

South-Eastern areas:

Moderate chance (68%) of mean daily rainfall up to 2.5 mm.

Southern areas:

Moderate chance (66%) of mean daily rainfall up to 1.2 mm.

South-Western areas:

Moderate chance (65%) of mean daily rainfall up to 1.1 mm.

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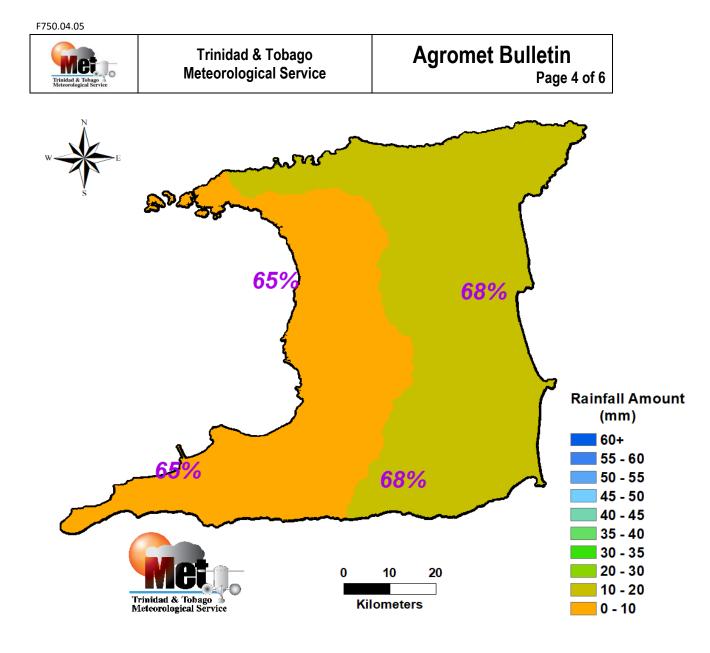


Figure 1. Rainfall Map of Trinidad showing possible rainfall totals for varying districts during third dekad of February 2018 and percentage probability of occurrence.

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Tobago's Mean Daily Rainfall Forecast for the Third Dekad of February (21st -28th) 2018.

Northeastern areas:

Moderate chance (68%) of mean daily rainfall up to 1.0 mm.

South-Western areas:

Moderate chance (68%) of mean daily rainfall up to 1.0 mm.

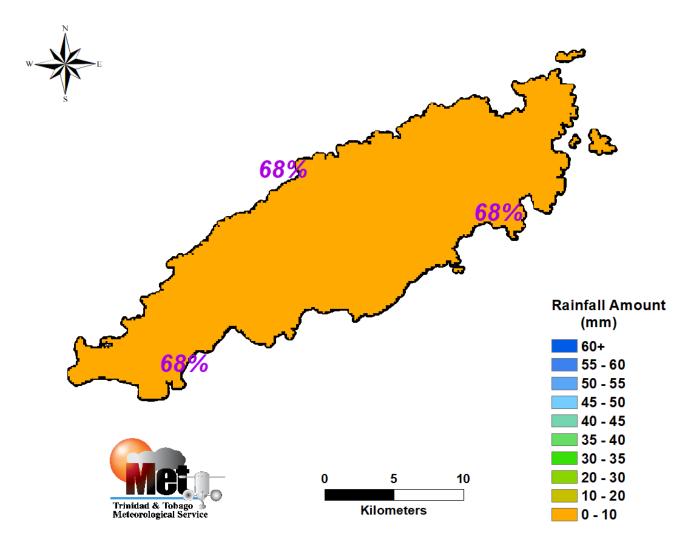


Figure 2. Rainfall Map of Tobago showing possible rainfall totals for varying districts during third dekad of February 2018 and percentage probability of occurrence.

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Temperatures:

Trinidad's Temperature Forecast for the Third Dekad of February (21st -28th) 2018.

Moderate chance (70%) of daily maximum temperatures to exceed 31.4 °C, peaking near 32.4 °C.

Moderate chance (70%) of daily minimum temperatures to be below 22.1 0 C, dropping as low as 20.5 0 C.

Tobago's Temperature Forecast for the Third Dekad of February (21st -28th) 2018.

Moderate chance (70%) of daily maximum temperatures to exceed 30.1 ^oC, peaking near 30.9 ^oC.

Moderate chance (70%) of daily minimum temperatures to be below 22.9 °C, dropping as low as

21.8 °C.

Summary:

The outlook for the third dekad of February calls for mostly dry and windy conditions throughout the dekad. Overall, temperatures are expected to be cool with average temperatures ranging between 25.8 ^oC and 27.0 ^oC in both islands. The highest maximum temperatures are likely to reach 32.4 ^oC in Trinidad and 30.9 ^oC in Tobago. While, the lowest minimum temperatures are likely reach 20.5 ^oC in Trinidad and 21.8 ^oC in Tobago. Dry conditions are expected to continue into the next two months of March and April. Opportunities for water harvesting are diminishing, hence any opportunity to harvest and store rainwater should be undertaken, while irrigation processes continue.

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