

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third Ten days of August (21st-31st) 2017

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

Definitions used in the forecast and bulletin

Weather Assessment for the Second Ten Days (Dekad) of August $(11^{th} - 20^{th})$ 2017

For the ten days ending 20th August 2017, light to heavy showers were experienced over both islands. Trinidad received most of the rainfall with 11th and 20th being particularly wet and accounted for most of the ten-day rainfall totals in the island. Preliminary ten-day rainfall at Piarco was close to 70.0mm, but based on observations, totals were higher at other locations. Wet conditions dominated the last four days in Tobago with the heaviest rainfall occurring on 18th with

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as a much as 55.7 mm of rainfall occurring in the Crown Point area. Preliminary ten-day rainfall total at Crown Point amounted close to 85.0mm and based on observations, similar rainfall amounts were observed elsewhere on the island.

At the same time, maximum day temperatures at Piarco soared above 34.0°C on seven of the ten days to peak at 35.7°C on the 18^{th,} while night minimum temperatures were above 24.0°C. Across at Crown Point, maximum day temperatures remained above 32.0°C on seven of the ten days to peak at 33.1°C on the 16^{th,} while night minimum temperatures were above 25.0°C for eight out of the ten days.

The wet and humid conditions would have been favourable for some bacterial, fungal and viral crop diseases to flourish. The mostly dry and warm conditions in Trinidad during 12th to 19th mean that the soil moisture would have undergone some level of reduction in most areas and would have declined further as crop growth would have also withdrawn moisture from top soils. The dry weather would have been good for fieldwork. At the same time, the soggy fields in Tobago would have reduced soil oxygen, increased the loss of nitrogen and other important nutrients, which can negatively affect fruit quality and crop yields. Meanwhile, these conditions would have reduced the need for irrigation, improved water flow and levels in streams and ponds, while providing good opportunities for water harvesting, where needed.

Expected Weather for the Third Ten days of August $(21^{st} - 31^{st})$ 2017 and Likely Impact on Agriculture

High chances exist for mixed conditions during the third ten days of August across large areas of Trinidad and Tobago. The most favourable likelihood is for areas in northeastern Trinidad and all of Tobago to receive the heavier amounts. Farmers should expect wetter conditions during the latter half of the dekad. Drier conditions are in the forecast for the first half but pockets of moderate rainfall can still be experienced. Overall there is a 75% chance for ten-day rainfall totals between 30.0mm and 50.0mm in Trinidad, while in Tobago a 75% chance for ten-day rainfall totals between 30.0mm and 40.0mm.

During the forecast period, day-time temperatures are expected to be slightly warmer than normal for all of Trinidad and Tobago. Expect day-time temperatures to peak between 31.0°C and 33.0°C on most days in Trinidad and between 29.0°C and 32.0°C in Tobago. Night-time temperatures are expected to be on the warm side, varying between 23.0°C and 26.0°C on both islands but the valleys and foothills of the northern range, other hilly areas in Trinidad and northern areas of Tobago can expect slightly cooler night temperatures (between 22.0°C and 23.0°C). Conditions favour all stages of crop growth and development but the mixture of warm and moist conditions

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is also favourable for rapid multiplication of some crop pests, diseases and fungi. In the heaviest showers, ponding can occur in low-lying crop fields which can lead to flooding. Farmers are encouraged to pay attention to the daily forecasts to negate potential flooding effects on mature crops. Mulching will aid in retaining moisture near crop-root zone areas and thus reduce the need for irrigation.

Preliminary Rainfall and Temperature Outlook for First Ten Days of September

The outlook indicates more wet than dry days during the first half of the ten days of September. Temperatures are forecasted to peak near 33.0°C.

Trinidad's Mean Daily Rainfall Forecast for the Third Dekad of August (21st-31st) 2017

Northern & North-western areas:

High chance (75%) of mean daily rainfall up to 4.0mm.

North-Eastern and Eastern areas:

High chance (75%) of mean daily rainfall up to 5.0mm.

Central, West-Central and inland areas:

High chance (75%) of mean daily rainfall up to 5.0mm.

South-Eastern areas:

High chance (75%) of mean daily rainfall up to 4.0mm.

Southern areas:

High chance (75%) of mean daily rainfall up to 4.0 mm.

South-Western areas:

High chance (75%) of mean daily rainfall up to 4.0mm

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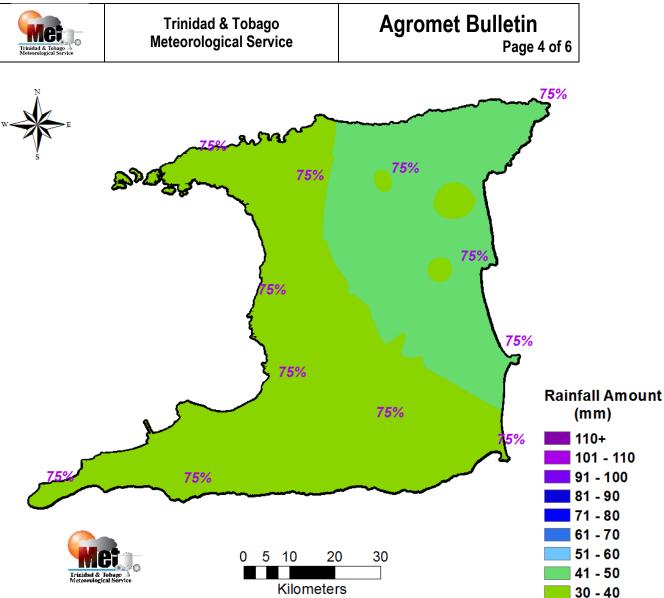


Figure 1. Rainfall Map of Trinidad showing possible rainfall totals for varying districts during the third dekad of August, 2017 and possible probability of occurrence.

Tobago's Mean Daily Rainfall Forecast for the Third Dekad of August (21st-31st) 2017 Northeastern areas:

High chance (75%) of mean daily rainfall up to 4.0mm.

South-Western areas:

High chance (75%) of mean daily rainfall up to 4.0mm.

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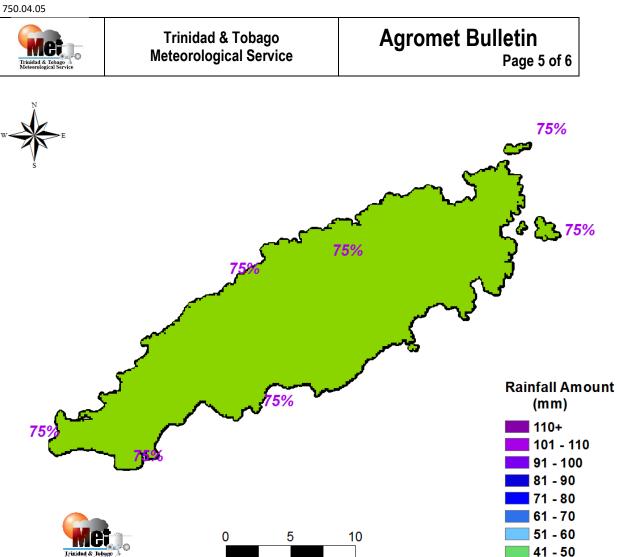


Figure 2. Rainfall Map of Tobago showing possible rainfall totals for varying districts during the third dekad of August, 2017 and possible probability of occurrence

Kilometers

Temperatures

Trinidad's: Temperature Forecasts for the Third Ten Days of August (21st-31st) 2017

High chance (75%) of daily maximum temperatures exceeding 32.0°C, peaking near 33.0°C. High chance (75%) of daily minimum night temperatures remaining above 24.5° C.

Tobago's: Temperature Forecasts for the Third Ten Days of August (21st-31st)2017

High chance (75%) of daily maximum temperatures exceeding 30.0 °C, peaking near 32.0°C. High chance (75%) of daily minimum night temperatures remaining above 24.0°C.

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Summary

The weather forecast for the third ten days of August (21st-31st) 2017 favours weather that will be beneficial to agriculture in most areas. Light to moderate rainfall is expected on most days with possible daily totals in excess of 5.0 mm on at least five days. There is a 75% chance for possible ten-day rainfall totals between 30.0 and 50.0 mm across Trinidad and between 30mm and 40.0mm for Tobago. Temperatures are set to peak near 33.0°C in Trinidad and near 32.0°C in Tobago. Based on expected moist and hot conditions, chances are enhanced for rapid multiplication of some agricultural pests, diseases and fungi.

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