

Agro-meteorological Bulletin and Assessment for Farmers and Livestock Producers of Trinidad and Tobago for the Third dekad (1st to 10th) of May 2015

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 third dekad of April (21st -30th) 2015

Very little or no rain fell over Trinidad and Tobago during the third dekad of April as persistent hot temperatures and harsh dry weather conditions continued to affect the farming community in the country. Average temperatures increased during the third dekad of April as scanty rainfall occurred on the sixth day in Trinidad. In Tobago, temperatures increased as there was scanty rainfall occurring on the second

<u>Disclaimer</u>



day of the third dekad. Overall, the ten-day rainfall total was a dry period with 0.1mm at Piarco and an unmeasurable amount at Crown Point. This would have been similar in other districts across the country. The hot and dry conditions during the dekad became a cause for concern for the health of crops and livestock and would have required farmers to use heat and water stress management methods to protect crops and livestock.

Compared to the previous dekad, the average maximum temperature increased by 1.1°C, while minimum temperatures decreased by 0.4°C in Trinidad. In Tobago, maximum temperature decreased by 0.5°C while minimum temperatures increased by 0.5°C. Maximum temperatures peaked at only 33.1 °C at Piarco and 30.2 °C at Crown Point. With little or no rain falling during the period, weather conditions during the third dekad was unfavourable for agriculture with the potential for the increase in heat and water stress.

Expected Weather for the First Dekad (1st - 10th) of May, 2015 and Likely Impact on Agriculture

The forecast for the first ten days of May shows strong possibilities for weather that will continue to be unfavourable for agriculture. Scanty rainfall is most likely towards the end of the dekad. There is a 75% chance for the ten-day rainfall not to exceed 5.0 mm with rainfall totals to range between 0.0 mm and 5.0 mm across varying districts of the country, with south-eastern Trinidad likely to receive the highest rainfall amounts. Average daily rainfall is expected to be near 0.5 mm in Trinidad and Tobago.

Throughout the dekad, temperatures are forecasted to range between 27.0 °C and 32.5 °C during daylight hours in both islands while maximum temperatures in Trinidad are likely to peak near 32.8 °C and near 31.0 °C in Tobago. Average relative humidity values are expected to range between the high forties (40's) to high sixties (60's) percentage in both island during daylight hours, with higher values during rainfall occurrence. Wind speeds are expected to continue being moderate (5 – 8 meters per second) at 2.0 meters from the surface.

The anticipated conditions are likely to decrease water availability for agricultural purposes. The drier conditions are likely to increase irrigation needs especially in newly planted and transplanted crops. Without adequate irrigation, expect an increase in water and heat stress in crops. Farmers are encouraged to continue practising crop water management by harvesting by using mulching and harvesting rainfall whenever it occurs. Moderate to strong winds may affect opportunities for certain types of fertilizer applications.

Preliminary Rainfall and Temperature Outlook for Second Ten Days of May 2015

The second ten days of May favour dry conditions for the first five days. Maximum temperatures are forecasted to be slightly warmer than usual.

<u>Disclaimer</u>



Trinidad Rainfall Forecast for the First Dekad of May $(1^{st} - 10^{th})$ 2015



Figure 1. Rainfall Map of Trinidad showing expected mean rainfall totals for districts across Trinidad during the first ten days of May 2015 and percentage probability of occurrence.

Eastern and North-Eastern areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

South-Eastern areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

Southern areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

South-Western areas

Moderate chance (75%) of mean daily rainfall up to 0.5 mm.

Northern, North-Western areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

<u>Disclaimer</u>



Central, West-Central and inland areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

Tobago Rainfall Forecast for the First Dekad of May (1st-10th) 2015

Percentage Probability Rainfall Map of Tobago Final Dekad of May 2015 Rainfall Amount (mm) 0 - 5 - 10 51 11 - 15 56 60 16 - 20 61 65 21 - 25 66 - 70 26 30 71 - 75 31 - 35 76 - 80 36 40 81 - 85

Figure 2. Rainfall Map of Tobago showing expected mean rainfall totals for districts across Tobago during the first ten days May 2015 and percentage probability of occurrence.

North-Eastern areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

South-Western areas

Moderate chance (75 %) of mean daily rainfall up to 0.5 mm.

Temperatures

Trinidad Temperature Forecast for the first dekad of May (1st – 10th) 2015

High chance (75 % chance) for above normal mean daily temperatures (warmer than 27.4 °C).

High chance (75 % chance) for the daily maximum temperature to exceed 32.5 °C.

<u>Disclaimer</u>



Low chance (30 % chance) for the minimum night-time temperature to remain above 24.5 °C.

Tobago Temperature Forecast for the first dekad of May (1st- 10th) 2015

High chance (75 % chance) for above normal mean daily temperatures (warmer than 27.6 °C).

High chance (75 % chance) for the daily maximum temperatures to exceed 31.0 °C.

Low chance (30 % chance) of the minimum night-time temperatures remaining above 24.5 °C.

Summary

For the first ten days of May expect little to no rainfall. Ten-day rainfall totals are not expected to exceed 5.0 mm but there is a 75 % chance for it to range between 0.0 mm and 5.0 mm across varying agriculture districts. Temperatures are expected to remain slightly warmer than average with average daytime temperatures ranging between 27.0 °C and 32.5 °C in both islands. Maximum temperatures are forecasted to peak near 32.5°C in Trinidad and 31.0°C in Tobago. Farmers are encouraged to continue practising crop water management by harvesting by using mulching and harvesting rainfall whenever it occurs.

Disclaimer