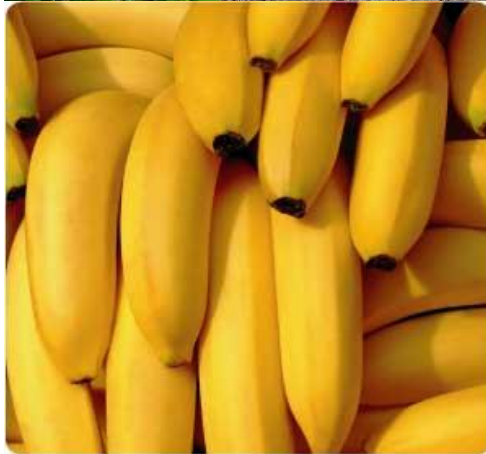


NATIONAL AGROMET BULLETIN



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May 2015

- + Severe drought conditions reported for sections of St. Thomas.**
- + Below normal rainfall forecast for most stations for June through August.**
- + Above normal Temperature forecast to continue through August 2015.**

Weather Summary for month of May 2015

Throughout the month of May several persistent low pressure systems dominated weather conditions across island. This resulted in increased rainfall activities across most northern and western parishes. However, Manley in the Southeast and Sangster in the Northwest both recorded below their monthly climatological means.

During the month, Sangster in the northwest recorded 12.3 mm of rainfall, while Norman Manley in the southeast received 7.6 mm of rainfall during the period. There were three (3) rainfall days reported for Sangster while Norman Manley International airports recorded only one (1) rain day. Both Manley and Sangster received about 11% of the normal rainfall expected for the month of May.

The highest maximum temperature recorded for Sangster Airport was 34.6°C (5th May) meanwhile 33.9°C (31th May) was reported for Norman Manley Airport. It was noted that the extreme maximum temperature was exceeded at both airports.

Standardized Precipitation Index (SPI)

The Standardized Precipitation Index (SPI), developed by T.B. McKee, N.J. Doesken, and J. Kleist in 1993, is based only on precipitation. One unique feature is that the SPI can be used to monitor conditions on a variety of time scales namely 1- month, 3-month, 6-month, 9-month and 12-month periods. This temporal flexibility allows the SPI to be useful in both short-term agricultural and long-term hydrological applications.

KEY

SPI Value	Category	SPI Value	Category
0 to -0.4	Normal drought	0 to 0.4	Normal Wetness
-0.5 to -0.7	Abnormally Dry (30%tile)	0.5 to 0.7	Abnormal Wetness (70%tile)
-0.8 to -1.2	Moderate Drought (20%tile)	0.8 to 1.2	Moderate Wetness (80%tile)
-1.3 to -1.5	Severe Drought (10%tile)	1.3 to 1.5	Severe Wetness (90%tile)
-1.6 to -1.9	Extreme Drought (5%tile)	1.6 to 1.9	Extreme Wetness (95%tile)
-2.0 or less	Exceptional Drought (2%tile)	2.0 or more	Exceptional Wetness (98%tile)

Table 1. Rainfall and Drought Analysis for Selected Stations

Parish	Station	April Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for April
Hanover	Mount Peto	473	118	0.8
Westmoreland	Sav-la-mar	123	51	0.1
Westmoreland	Frome	340	118	0.4
Manchester	Sutton	125	51	-0.2
St. Elizabeth	Y.S Estates	366	112	0.4
St. Elizabeth	Potsdam	192	109	-0.6
Clarendon	Beckford Kraal	248	106	-0.4
St. Catherine	Tulloch	151	75	-0.5
Trelawny	Orange Valley	55	61	-0.1
St. James	Sangster	12	12	-0.9
St. Ann	Cave Valley	194	101	-0.5
St. Mary	Hampstead	30	21	0.3
Portland	Shirley Castle	121	39	-1.1
St. Thomas	Serge Island	12	5	-1.5
KSA	Langley	235	91	-0.6
KSA	Manley Airport	8	11	-0.5

Standardized Precipitation Index Discussion

Eleven of sixteen stations are reporting drought conditions up to the end of May. Of this number the three worst cases are Sangster in St. James and Shirley castle in Portland reporting moderate drought while Serge Island in St. Thomas is now reporting severe drought conditions. St. Thomas has been receiving below normal rainfall as since the start of the year and therefore deterioration would be expected. Some improvement was seen in St. Elizabeth where conditions at Potsdam has improved from extreme drought to abnormally dry conditions however this may be a temporary recovery.

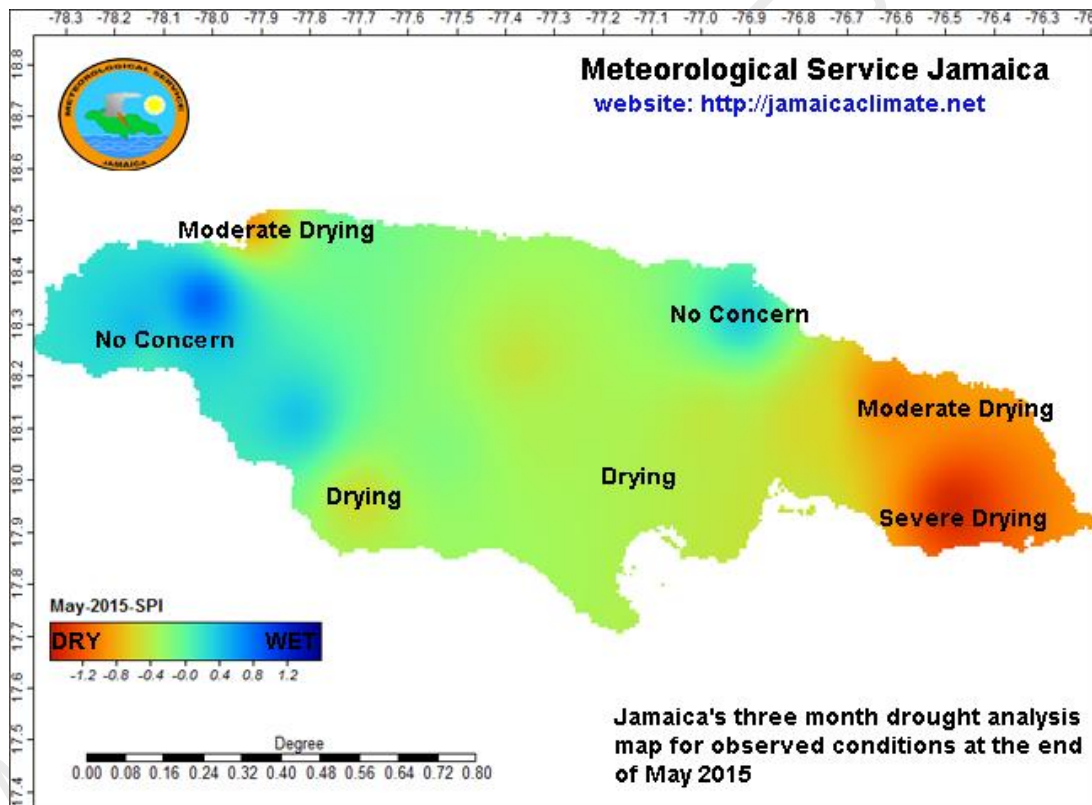


Fig.1 Station observed drought conditions for end of May 2015



Precipitation Forecast – June to August 2015

The rainfall outlooks for the period June to August, from the Global Dynamic Models as well as Climate Predictability Tool (CPT) are indicating below normal rainfall conditions for the Caribbean. Temperatures are forecast to be above normal during the period.

Of the sixteen rainfall stations that were examined across the island, fifteen are likely to receive below normal rainfall. Based on our most recent forecast the parish of St. Thomas will continue to experience the greatest deficit in rainfall during the period.

Table 2. Climate Predictability Tool (CPT) Outlook MJJ 2015.

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley (Kingston)	47	11	42
Sangster (St. James)	37	33	30
Sav. (Westmoreland)	42	32	26
Beckford (Clarendon)	44	13	43
Serge Island (St. Thomas)	48	26	26
Cave Valley (St. Ann)	47	11	42
Tulloch Estate (St. Cath.)	48	12	40
Y.S. Estate (St. Elizabeth)	47	15	38
Hampstead (St. Mary)	48	18	34
Orange Valley (Trelawny)	43	31	26
Langley (Kingston)	47	11	42
Mount Peto (Hanover)	41	31	28
Shirley Castle (Portland)	38	31	31



Suttons (Manchester)	40	10	50
Potsdam (St. Elizabeth)	45	20	35
Frome (Westmoreland)	35	34	31
Jamaica	45	20	35

Key

- A: Above normal rainfall means greater than 66 percentile of the rank data
- N: Near normal rainfall means between 33 and 66 percentile of the rank data
- B: Below normal rainfall means below 33 percentile of the rank data

Drought Forecast – August 2015

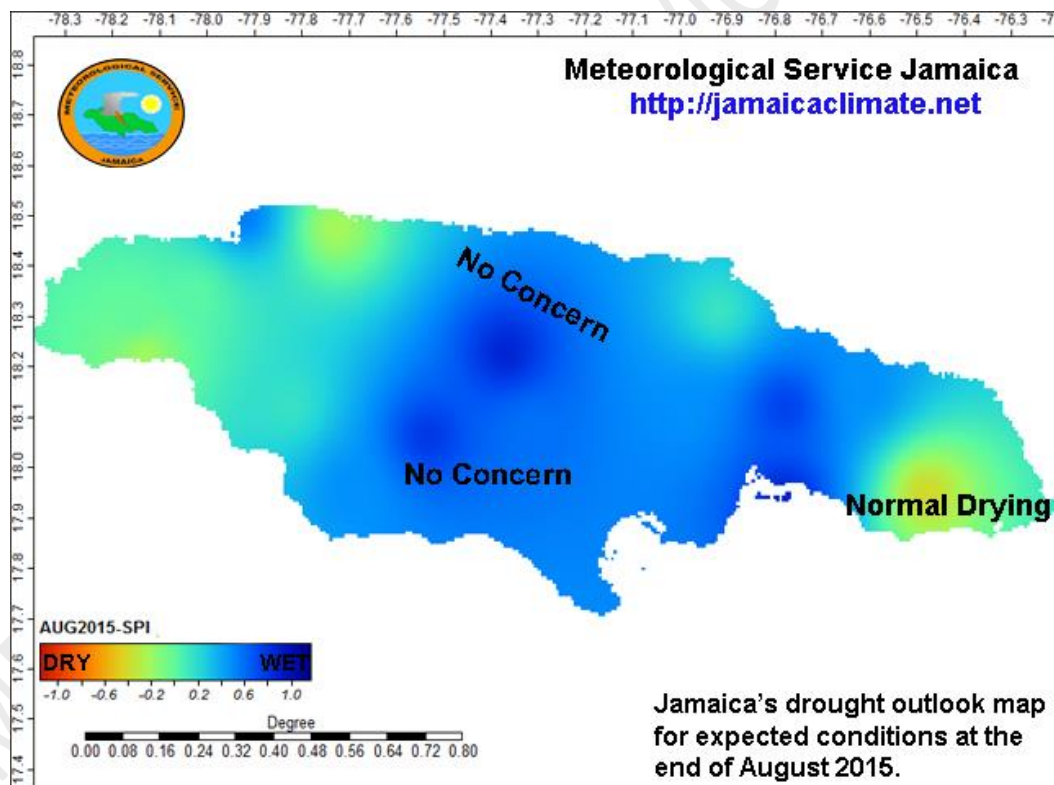


Fig.2 Expected drought conditions by end of August 2015



Temperature Forecast – June to August 2015

Location	Below (B) %	Normal (N) %	Above (A) %
Jamaica Temperature Outlook	15	20	65

Summary and Expected Agricultural Impacts

Drought conditions across the island has improved for a few areas but on the larger scale the situation has deteriorated. This is especially true for sections of Portland and St. Thomas. Precipitation forecast for the coming months (June to August) are below normal for most parishes and this could result in significant rainfall deficits and water problems for farmers and other interests.

These areas will be closely monitored to ensure that information can be provided to inform the decision- making process as we approach the end of the early rainfall season (AMJ).