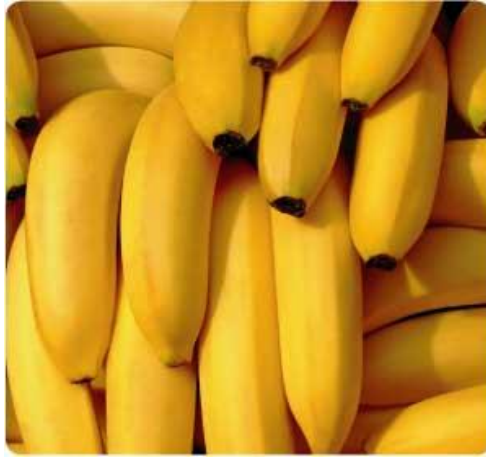


NATIONAL AGROMET BULLETIN



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February 2015

- ✚ Extreme drought conditions being reported for Potsdam.**
- ✚ Above normal rainfall forecast for all stations except for Serge Island in St. Thomas.**
- ✚ Above normal Temperature forecast to continue through May 2015.**

Weather Summary for month of February 2015

Throughout the month of February high pressure systems were the most dominant weather feature affecting the island. However, towards the middle of the month the country was affected by a series of surface troughs and cold fronts, this resulted in an increase in shower activities mainly over northern parishes.

During the month, Sangster in the northwest recorded 76.4 mm of rainfall, while Norman Manley in the southeast received 12.0 mm of rainfall. There were five (5) rainfall days reported for Sangster while Norman Manley International airports had three (3) rain days. Manley received about 60% of average rainfall during the period, while Sangster received about 23% above the average (1971-2000 mean).

The lowest minimum temperature recorded for Sangster Airport was 18.2°C (13th February) meanwhile 21.6°C (16th February) was reported for Norman Manley Airport.



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	February Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for February
Hanover	Mount Peto	113	103	0.5
Westmoreland	Sav-la-mar	20	24	-0.4
Manchester	Sutton	76	120	1.4
St. Elizabeth	Y.S Estates	93	83	0.6
St. Elizabeth	Potsdam	52	80	-1.6
Clarendon	Beckford Kraal	23	40	-0.1
St. Catherine	Tulloch	28	32	-0.5
Trelawny	Orange Valley	46	79	0.5
St. James	Sangster	76	124	0.9
St. Ann	Cave Valley	14	23	0.3
St. Mary	Hampstead	143	122	1.7
Portland	Shirley Castle	208	56	0
St. Thomas	Serge Island	4	6	-0.1
KSA	Langley	81	54	-0.5
KSA	Manley Airport	7	34	-0.8

Standardized Precipitation Index Discussion

Seven of fifteen stations were showing some level of drought however the concern is for Potsdam which is now showing severe drought conditions. It is therefore important for agricultural interests in this area to begin irrigation so as to reduce the impact on crops until the rains begin in April.

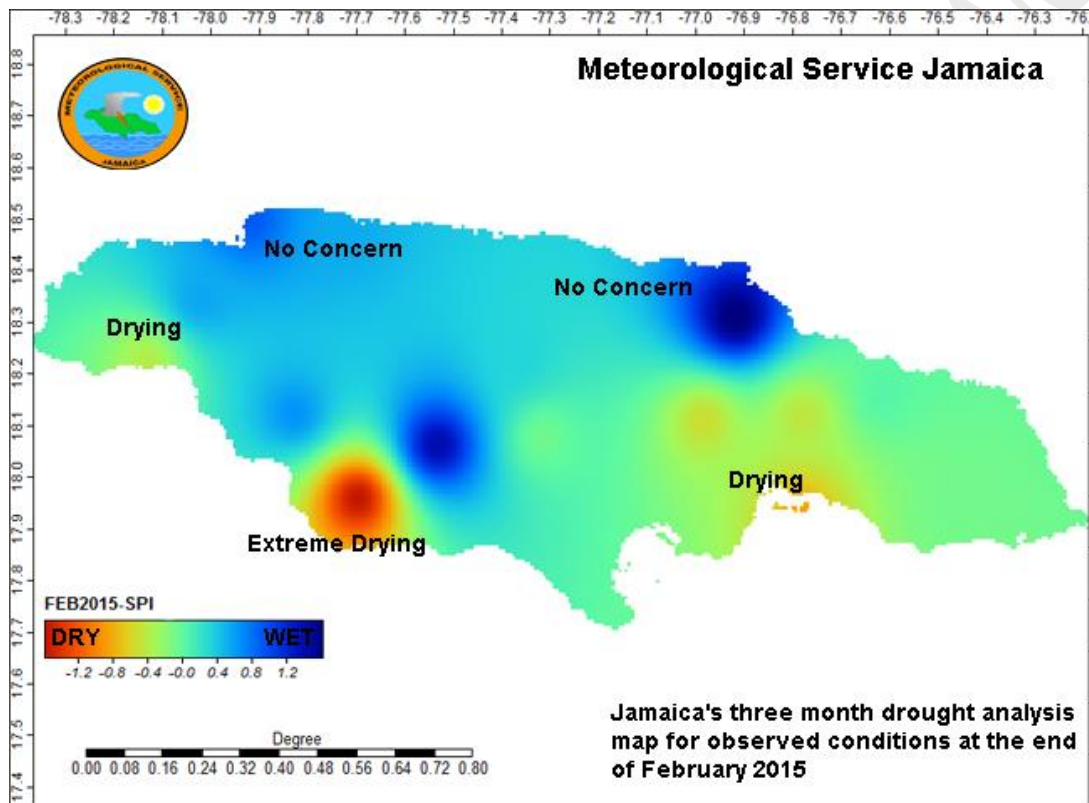


Fig.1 Station observed drought conditions for February 2015



Precipitation Forecast – March to May 2015

The rainfall outlook for the period March to May, both from the Global Dynamic Models as well as Climate Predictability Tool (CPT), indicate near normal to above normal rainfall with warmer than normal temperatures likely to continue across most areas of the Caribbean, including Jamaica.

The findings from the CPT indicates most areas are likely to experience near normal to above normal rainfall, however sections of St Thomas are likely to continue receiving normal to below normal rainfall.

Of the fifteen rainfall stations that were examined across the island, fourteen are likely to receive near normal to above normal rainfall, while one station in the southeast indicates below normal rainfall during the period. The parish of St Thomas continues to show the greatest deficit in rainfall during the period.

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

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley (Kingston)	32	18	50
Sangster (St. James)	31	17	52
Sav. (Westmoreland)	32	34	34
Beckford (Clarendon)	24	33	43
Serge Island (St. Thomas)	37	29	34
Cave Valley (St. Ann)	30	17	53
Tulloch Estate (St. Cath.)	26	32	42
Y.S. Estate (St. Elizabeth)	28	32	40
Hampstead (St. Mary)	30	27	43
Orange Valley (Trelawny)	27	33	40
Langley (Kingston)	35	18	47



Mount Peto (Hanover)	30	34	36
Shirley Castle (Portland)	35	18	47
Suttons (Manchester)	30	16	54
Potsdam (St. Elizabeth)	34	19	47
Jamaica	31	25	44

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 – May 2015

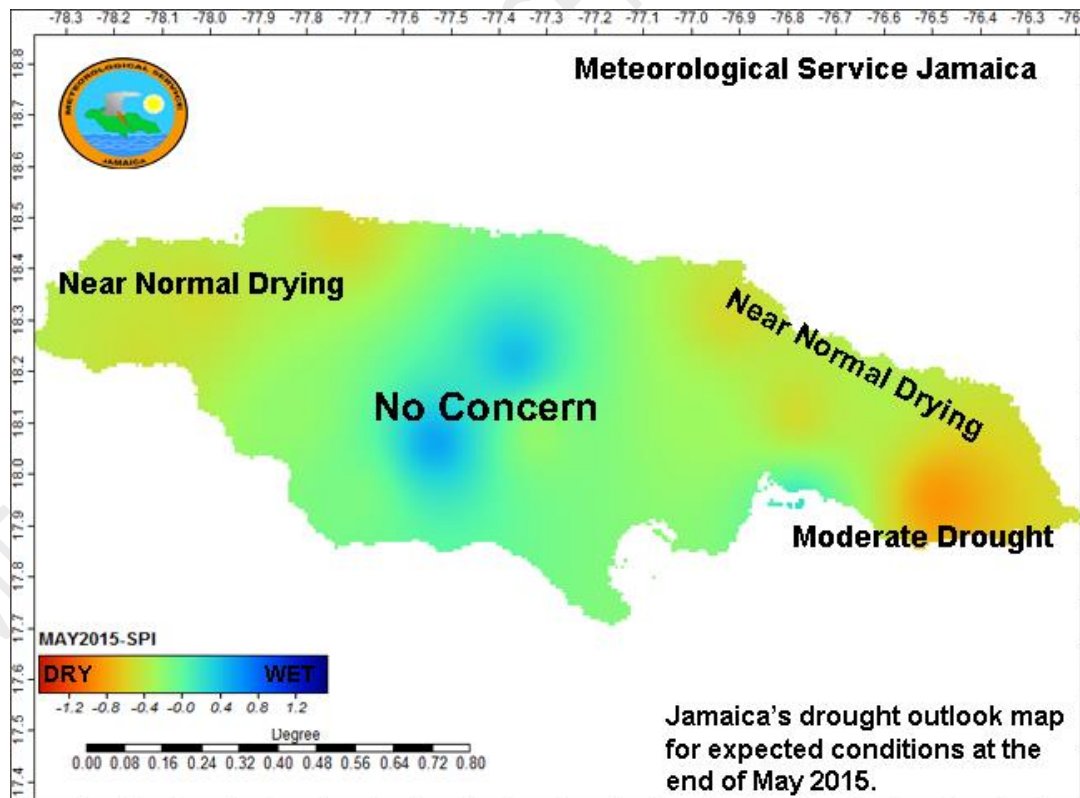


Fig.2 Expected drought conditions by end of May 2015



Temperature Forecast – March to May 2015

Location	Below (B) %	Normal (N) %	Above (A) %
Jamaica Temperature Outlook	24	18	58

Summary and Expected Agricultural Impacts

Most sections of the island are currently above drought conditions or showing normal drought except for Potsdam which is reporting extreme drought conditions. Irrigation should have been employed in this area because significant rainfall is not expected until April which could create serious problems and loss of crops on the farms. Serge Island in St. Thomas is now reporting normal drought however continued forecast of below normal rainfall may result in worsening of drought conditions by the end of March. Close monitoring is therefore recommended to ensure the availability of water throughout the dry season especially for agricultural interests in these areas. Drought forecast has maintained near normal conditions over most parishes for the early rainfall season (April- June).