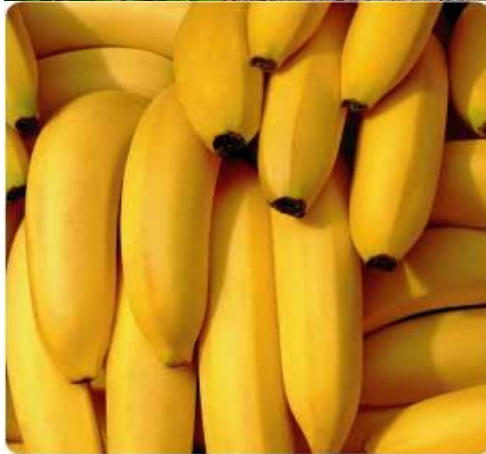
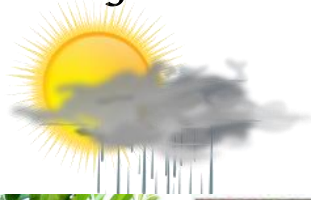


NATIONAL AGROMET BULLETIN



Issued by
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July 2015

-  **Exceptional drought conditions reported for southeastern and northwestern stations.**
-  **Below normal rainfall forecast for most stations for August through October.**
-  **Above normal Temperature forecast to continue through October 2015.**

Weather Summary for month of July 2015

Throughout the month of July tropical waves passing close to Jamaica coupled with a few troughs were the dominant weather features affecting the island.

During the month, Sangster in the northwest recorded 19.9 mm of rainfall, while Norman Manley in the southeast recorded 21 mm of rainfall. There were three (3) rainfall days reported for Sangster while Norman Manley International had four (4) rain days. Both Manley and Sangster received below average rainfall for the month of July 30 year mean (1971-2000) however Sangster received less than 50 % of the mean rainfall.

The highest maximum temperature recorded for Norman Manley Airport was 34.6°C (22nd July) meanwhile Sangster Airport reported 35.6°C (5th July) which exceeded the 20-year average for that location.

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	July Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for July
Hanover	Mount Peto	92	37	-1.1
Westmoreland	Sav-la-mar	89	51	-1.9
Westmoreland	Frome	242	105	-0.2
Manchester	Sutton	22	24	-1.7
St. Elizabeth	Y.S Estates	239	133	-0.1
St. Elizabeth	Potsdam	24	29	-0.5
Clarendon	Beckford Kraal	0	0	-0.8
St. Catherine	Tulloch	64	43	-1.5
St. Catherine	Worthy Park	14	13	-2.5
Trelawny	Orange Valley	31	57	-1.0
St. James	Sangster	20	38	-2.3
St. Ann	Cave Valley	117	135	-0.6
St. Mary	Hampstead	35	55	-1.7
Portland	Shirley Castle	128	91	-0.9
St. Thomas	Serge Island	34	21	-2.7
KSA	Langley	89	92	-0.1
KSA	Manley Airport	21	71	-1.4

Standardized Precipitation Index Discussion

All stations were reporting some level of drought however the worst affected areas were Sangster in St. James, Worthy Park in St. Catherine and Serge Island in St. Thomas which were all reporting exceptional drought which represents the lowest level on the SPI scale (see Key above). Sutton in Manchester, Sav-la-mar in Westmoreland and Hampstead in St. Mary are not far behind reporting extreme drought for July. All stations have seen worsened drought conditions since June which highlights the impacts of the significant deficit in rainfall in some sections of the island.

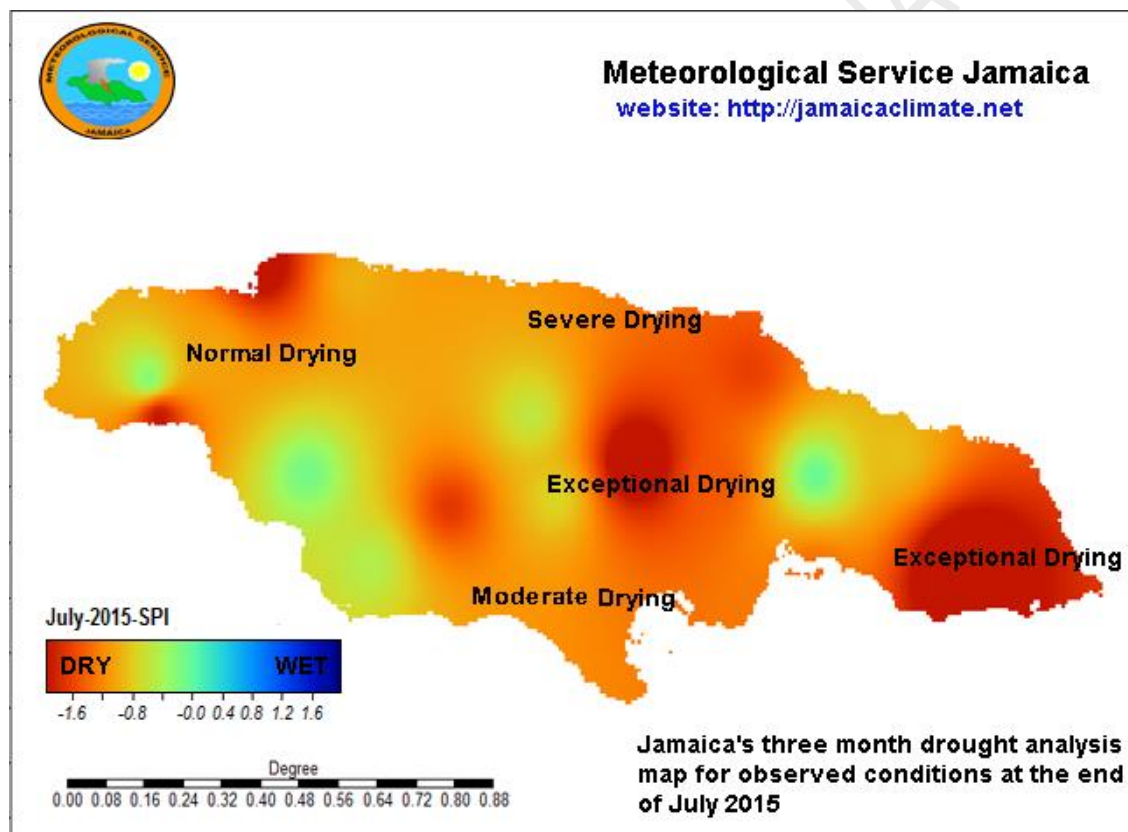


Fig.1 Station observed drought conditions for end of July 2015

Precipitation Forecast – August to October 2015

The rainfall outlook for the period August to October, from the Global Dynamic Models as well as Climate Predictability Tool (CPT) are indicating warmer than normal temperatures with continued below normal rainfall for the Caribbean as well as the Jamaica.

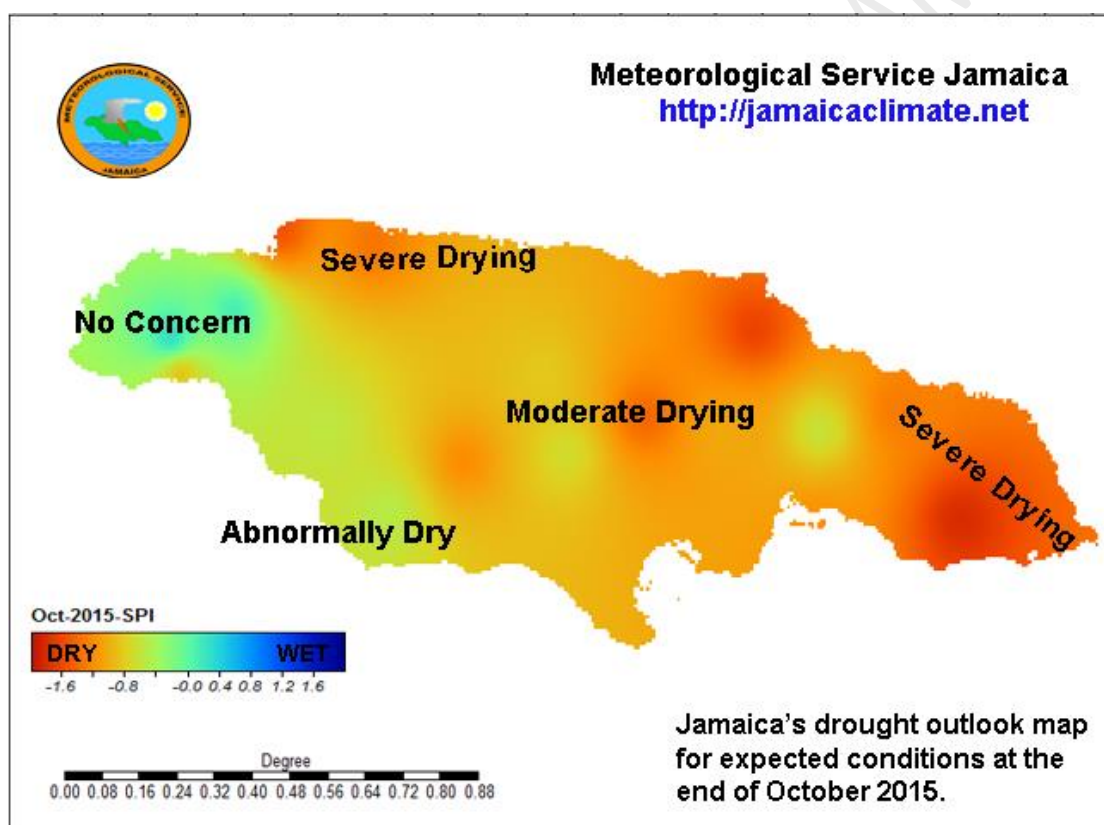
Of the seventeen rainfall stations that were examined across the island, all stations are likely to receive below normal rainfall. Our most recent forecast indicates most eastern parishes as well as some central parishes are likely to experience the highest rainfall deficit during the next three months.

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

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley (Kingston)	50	15	35
Sangster (St. James)	60	15	25
Sav. (Westmoreland)	50	30	20
Beckford (Clarendon)	60	15	25
Serge Island (St. Thomas)	45	25	30
Cave Valley (St. Ann)	55	15	30
Tulloch Estate (St. Cath.)	60	15	25
Y.S. Estate (St. Elizabeth)	60	15	25
Hampstead (St. Mary)	45	20	35
Orange Valley (Trelawny)	60	15	25
Langley (Kingston)	60	15	25
Mount Peto (Hanover)	60	15	25
Shirley Castle (Portland)	50	20	30
Suttons (Manchester)	60	15	25
Potsdam (St. Elizabeth)	45	20	35
Frome (Westmoreland)	50	20	30
Worthy Park (St. Cath.)	50	20	30
Jamaica	50	20	30

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 – October 2015**Fig.2 Expected drought conditions by end of October 2015**

Temperature Forecast – August to October 2015

Location	Below (B) %	Normal (N) %	Above (A) %
Jamaica Temperature Outlook	15	10	75

Summary and Expected Agricultural Impacts

Precipitation forecast through October remains below normal for most stations with highest deficits expected for central and eastern parishes. Western parishes have enjoyed fairly good rainfall amounts since the beginning of the year and is expected to be in a better position at the end of October when compared to the rest of the island. Conditions will however worsen for the other sections of the island if the forecast of below normal activity is realized.

El Nino continues to strengthen and now has a strong chance of continuing into the dry season (Dec-Mar 2015/2016). The impact of this would be very severe because the island is expected to maintain a deficit in rainfall going into 2016.

Planning should be done for the remainder of this year as well as early 2016 which would include the early rainfall season.