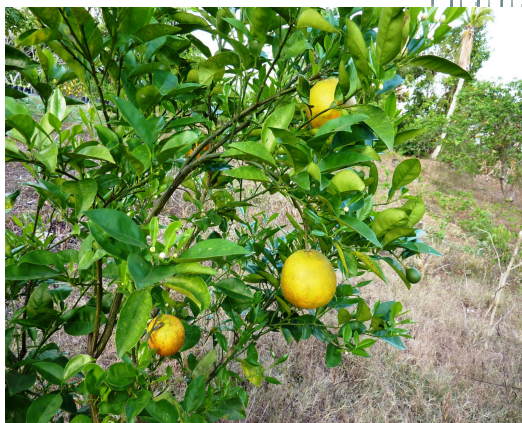


# NATIONAL AGROMET BULLETIN



Issued by

Climate Branch

Meteorological Service, Jamaica

65 ¾ Half Way Tree Road

Kingston 10

Telephone: 929-3700/3706

Email: [datarequest@metservice.gov.jm](mailto:datarequest@metservice.gov.jm)

**November 2013**



## Highlights for November 2013

- + Below normal rainfall predicted for December through February.**
- + Extreme maximum temperature exceeded at Sangster and Norman Manley International airport.**
- + Drought observation is now presented pictorially as well as in tabular form.**

### Weather Summary for month of November 2013

In a month where the number of rainfall days had decreased by half compared to the average, surface to low level troughs continued to be the dominate weather feature that affected the island. Preliminary figures indicate that the rainfall amount for the month of November remained near normal, with Sangster International airport (Sangster) in the northwest recorded 95% of its 30 year monthly mean while Norman Manley International airport (Norman Manley) in the southeast received 87% of its 30 year mean rainfall. During the month, Sangster recorded 97.3 mm of rainfall, while Norman Manley recorded 74.1 mm. There were seven rainfall days reported for Sangster, while Norman Manley had two rainfall days during the month.

Sangster Airport recorded 33.3°C (12<sup>th</sup> November), while 34.4°C (11<sup>th</sup> November) was reported for Norman Manley Airport. It should be noted here that both International airports exceeded the maximum 20-year mean temperature.

### 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**

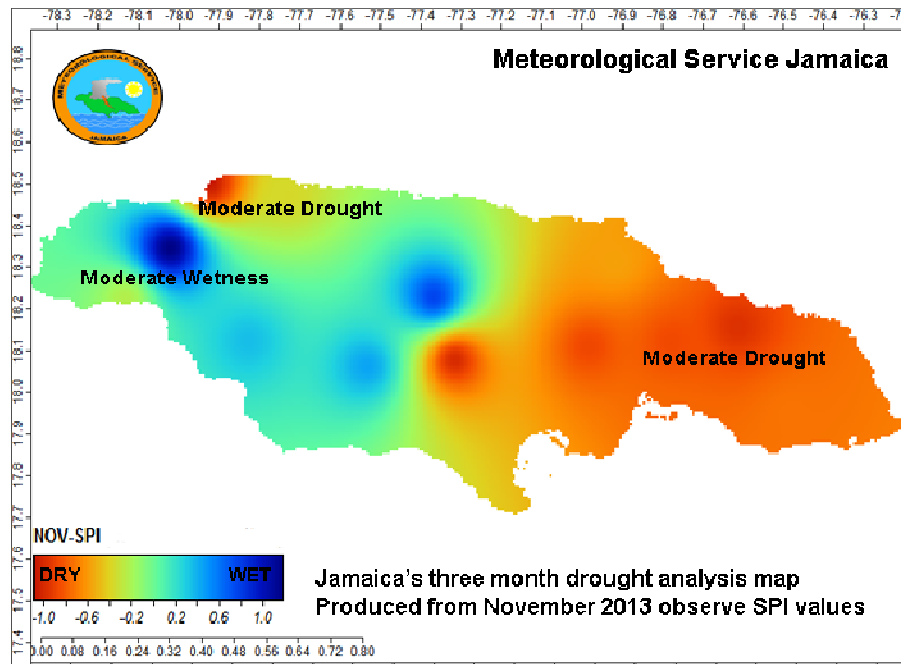
SPI Value	Category	SPI Value	Category
-0.5 to -0.7	Abnormally Dry (30%tile)	0.5 to 0.7	Abnormal Wetness (70%tile)
-0.8 to -1.2	Moderate Drought (20%tile)	0.8 to 1.2	Moderate Wetness (80%tile)
-1.3 to -1.5	Severe Drought (10%tile)	1.3 to 1.5	Severe Wetness (90%tile)
-1.6 to -1.9	Extreme Drought (5%tile)	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	October Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for October
St. Thomas	Serge Island	69	31	-0.74
KSA	Langley	no data	no data	no data
KSA	Manley airport	74	87	-0.78
St. Catherine	Tulloch	117	75	-0.89
Clarendon	Beckford Kraal	112	89	0.54
Manchester	Sutton	157	117	0.43
St. Elizabeth	Y.S Estates	no data	no data	no data
Westmoreland	Sav-la-mar	143	105	-0.25
Hanover	Mount Peto	177	141	1.16
St. James	Sangster	97	96	-1.08
Trelawny	Orange Valley	104	92	-0.38
St. Ann	Cave Valley	118	97	0.75
St. Mary	Hampstead	93	39	-0.59
Portland	Shirley Castle	297	48	-0.98

**Standardized Precipitation Index Discussion**

Of the twelve reporting stations eight (8) were showing varying levels of drought from normal to moderate drought. The worst cases of drought are currently evident over the eastern and central parts of the island as well as coastal St. James at the Sangster station as shown in figure 1.



**Fig.1 Station drought condition for November 2013**

**Precipitation Outlook – December 2013 to February 2014**

The Global Dynamic Models are forecasting below normal conditions across the western Caribbean while near normal to above normal rainfall is expected over the eastern Caribbean with warmer than normal air temperatures over the entire Caribbean basin.

The forecast from the statistical climate predictability tool (CPT) is forecasting below normal rainfall for all areas examined across Jamaica. Of a total of ten stations that were examined, all showed below normal with high confidence in the forecast. The overall average for Jamaica reflects a below normal rainfall pattern especially over south-western parishes.

**Table 2. Climate Predictability Tool (CPT) Outlook DJF 2013/14.**

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley Airport	34	33	32
Sangster Airport	41	31	28
Sav-la-mar.	54	29	17
Beckford Kraal	44	31	25
Serge Island	44	32	24
Cave Valley	35	34	31
Tulloch Estate	44	32	24
Y.S. Estate	54	29	17
Hampstead	47	29	24
Orange Valley	40	32	28
<b>Jamaica</b>	<b>44</b>	<b>31</b>	<b>25</b>

**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

**Summary and Expected Agricultural Impacts**

There is improved confidence in the precipitation forecast for December through February for below normal activity. Realization of this forecast would be problematic especially in farming communities in eastern and central parishes. This is especially important because drier than normal conditions in the dry season could result in the need for irrigation for crops and therefore farmers might need to put contingency plans in place.