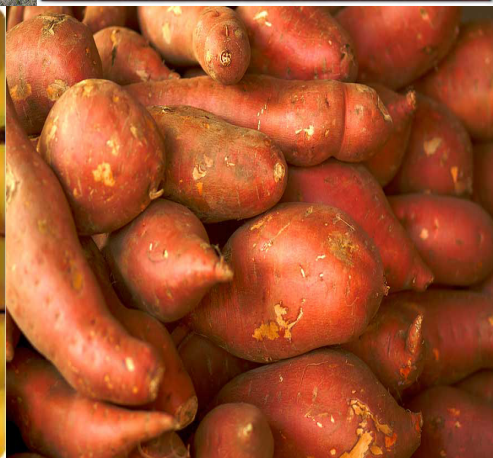


NATIONAL AGROMET BULLETIN



Issued by

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October 2013



Highlights for October 2013

- ✚ **Above normal rainfall predicted for November through January.**
- ✚ **Extreme maximum temperature exceeded at Sangster and Norman Manley International airport.**

Weather Summary for month of October 2013

Surface to low level troughs were the dominate weather features that affected the island throughout the month. The figures indicate that the rainfall amount for the month of October remained near normal over the interior areas of the island, however Sangster International airport (Sangster) in the northwest recorded 17% of its 30 year monthly mean while Norman Manley International airport (Norman Manley) in the southeast received 13% of its 30 year mean rainfall. During the month, Sangster recorded 28.1 mm of rainfall, while Norman Manley recorded 15.6 mm. There were nine rainfall days reported for Sangster, while Norman Manley had three rainfall days during the month.

Sangster Airport recorded 34.0°C (2nd October), while 34.4°C (24th October) 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
-0.50 to 0.50	Normal	-0.80 to -0.51	Abnormally dry
0.80 to 0.51	Abnormally wet	-1.30 to -0.81	Moderately dry
1.30 to 0.81	Moderately wet	-1.60 to -1.31	Severely dry
1.60 to 1.31	Very wet	-2.00 to -1.61	Extremely dry
2.00 to 1.61	Extremely wet	≤ -2.01	Exceptionally dry
≥ 2.01	Exceptionally wet		

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	87	33	-0.12
KSA	Langley	254	71	-0.46
KSA	Manley airport	16	14	-0.19
St. Catherine	Tulloch	193	81	0.14
Clarendon	Beckford Kraal	133	50	-0.52
Manchester	Sutton	378	149	0.74
St. Elizabeth	Y.S Estates	272	91	-0.61
Westmoreland	Sav-la-mar	108	45	-0.48
Hanover	Mount Peto	454	128	1.08
St. James	Sangster	28	17	-0.95
Trelawny	Orange Valley	65	44	-0.74
St. Ann	Cave Valley	226	113	1.09
St. Mary	Hampstead	93	67	-0.19
Portland	Shirley Castle	191	49	-0.62

Standardized Precipitation Index Discussion

Ten of the fourteen stations are showing normal to abnormally dry conditions for October. Realisation of the precipitation outlook could see improved conditions for those stations expected to have above normal rainfall however for Savanna-la-mar, Hampstead and Orange Valley which are predicted to have below normal rainfall combined with drought indices already showing drying could result in worsened conditions especially in the farming areas.

Precipitation Outlook – November 2013 to January 2014

The Global Dynamic Models are forecasting near normal to above normal rainfall with warmer than normal air temperatures for most of the Caribbean region. However, the northern Caribbean islands of the Bahamas are likely to receive below normal rainfall with cooler than normal air temperature for the period. The forecast from the statistical climate predictability tool (CPT) for the same period strongly supports above normal to near normal conditions for most stations examined across Jamaica.

Of a total of ten stations that were examined, seven showed above normal, while Hampstead, Orange Valley and Savanna-la-mar in the southwest demonstrated below normal rainfall pattern. The overall average for Jamaica reflects an above to near normal rainfall pattern especially towards the latter part of the period.

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

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley Airport	25	31	44
Sangster Airport	33	30	37
Sav-la-mar.	40	32	28
Beckford Kraal	24	30	46
Serge Island	28	32	40



Cave Valley	23	31	46
Tulloch Estate	24	31	45
Y.S. Estate	30	33	37
Hampstead	39	30	31
Orange Valley	36	34	30
Jamaica	30	31	38

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 November through January for above normal to normal activity. Realization of this forecast would be welcomed since the period represents a good portion of the dry season. There is however some concern for the stations showing abnormally dry conditions combined with forecasts for below normal activity; such areas will need to be closely monitored. This is especially important because stations in the western section of the island and sections of St. Mary were showing signs of drought from as early as December 2012. These conditions continued well into the early rainfall season (2013) for some areas which resulted in farmers complaining that assistance was needed to provide irrigation for their farms.