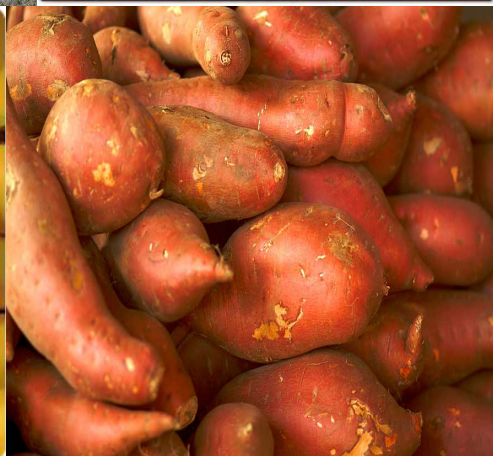


NATIONAL AGROMET BULLETIN



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September 2012



Weather Summary for month of September 2012

During the latter parts of September 2012, the island experienced a significant increase in rainfall activities especially over eastern parishes. One major rainfall event was reported during the month (September 29-30), which resulted in flash flooding over some eastern and central parishes. **Surface Troughs** were the most significant weather feature that affected the island accounting for the increased rainfall.

During the month, Sangster in the northwest recorded 67.9 mm of rainfall, while Norman Manley in the southeast recorded 231.3 mm. There were six rainfall days reported for both Sangster and Norman Manley International airports. Sangster recorded below average rainfall or approximately 47% of the 1971-2000 while Norman Manley recorded 131% of the 1971-2000 mean. The highest maximum temperature recorded for Sangster Airport was 34.7°C (2nd September) which exceeded the 20-year average by 0.4°C. At Norman Manley Airport the highest maximum was 34.5 °C recorded on the 26th September and this equaled the 20- year average for that station.

Table 1. Rainfall and Drought Analysis for Selected Stations

Parish	Station	September Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for July	SPI for August	SPI for September
St. Thomas	Serge Island	No data	n/a	n/a	n/a	n/a
KSA	Langley	365	130	-0.66	0.04	0.48
St. Catherine	Tulloch	No data	n/a	n/a	n/a	n/a
Clarendon	Beckford Kraal	278	136	-0.97	0.41	0.76
Manchester	Sutton	325	n/a	1.23	1.21	1.19
St. Elizabeth	Y.S Falls	312	121	-0.93	-1.15	-0.54
Westmoreland	Sav-la-mar	208	94	-0.71	0.04	0.48
Hanover	Mount Peto	324	88	-0.66	0.04	0.48
St. James	Sangster	68	52	-0.13	0.12	-0.65
Trelawny	Orange Valley	76	73	-0.81	0.38	0.43
St. Ann	Cave Valley	197	155	0.34	0.35	0.72
St. Mary	Hampstead	62	66	-0.11	0.26	0.41
Portland	Shirley Castle	181	92	-1.37	-0.15	0.30



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. SPI also allows monitoring of both extremes that is extreme dry and extreme wet conditions.

KEY

SPI Value	Category
-0.50 to 0.50	Normal
0.80 to 0.51	Abnormally wet
1.30 to 0.81	Moderately wet
1.60 to 1.31	Very wet
2.00 to 1.61	Extremely wet
≥ 2.01	Exceptionally wet
-0.80 to -0.51	Abnormally dry
-1.30 to -0.81	Moderately dry
-1.60 to -1.31	Severely dry
-2.00 to -1.61	Extremely dry
≤ -2.01	Exceptionally dry

Standardized Precipitation Index Discussion

Most stations were showing drought indices which ranged from normal to abnormally dry and abnormally wet. Looking at the figures for July and August a similar trend is seen for the selected stations.

Precipitation Outlook

Of a total of five stations that were examined, all except Savanna-La-Mar are indicating above normal rainfall season for the three months seasonal forecast. The forecast shows no clear signal hence very little confidence in the forecast output. The overall rainfall forecast for Jamaica continues to show a near normal to above normal rainfall pattern for the period October through to December.

**Table 2. Climate Predictability Tool (CPT) Outlook.**

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley	26	32	42
Sangster	34	31	35
Savanna-la-Mar	37	32	31
Beckford	30	33	37
Serge Island	33	32	35
Jamaica	33	32	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

Expected Agricultural Impacts

There is no sign of drought being indicated for the selected stations at this time. The precipitation outlook is forecasting above normal to normal conditions over the next three months although there is little confidence in the forecast, however with the current prediction for El Nino to remain weak into the winter time the likelihood of normal rainfall is greater.

In our next issue in Oct 2012.... Look out for:

- Report on Hurricane Sandy and crop damage.
- A New approach to yield estimation for root crops.