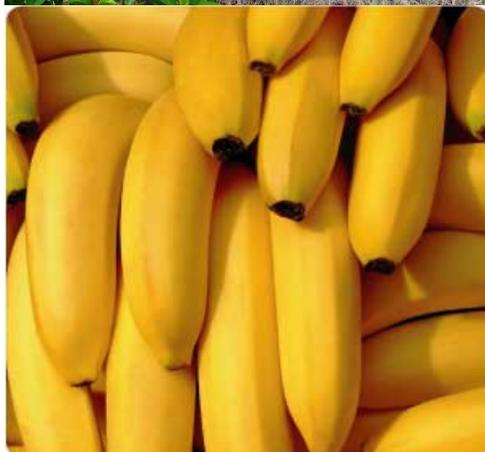


NATIONAL AGROMET BULLETIN



Issued by

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September 2013

Highlights for September 2013

- ✚ **Normal rainfall predicted for October through December.**
- ✚ **Extreme maximum temperature exceeded at Sangster International airport.**

Weather Summary for month of August 2013

Throughout the month the island's weather was predominantly affected by surface to low level troughs with occasional high pressure ridges accompanied by a few brief dry periods. The systems that impacted on the island's weather brought well needed rainfall to most areas that were experiencing longer than normal dryness.

Preliminary figures indicate that the rainfall amount for the month of September remained near normal with Sangster International airport (Sangster) in the northwest recorded 97% of its 30 year monthly mean while Norman Manley International airport (Norman Manley) in the southeast received 78% of its 30 year mean rainfall. During the month, Sangster recorded 128.2 mm of rainfall, while Norman Manley recorded 111.9 mm. There were thirteen rainfall days reported for Sangster, while Norman Manley had six rainfall days during the month.

Sangster Airport recorded 34.5°C (11th September) which exceeded the extreme maximum temperature 20 year mean for that station, while 33.9°C (17th September) 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
-0.50 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		

Parish	Station	September Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for September
St. Thomas	Serge Island	178	69	0.24
KSA	Langley	318	114	-0.07
St. Catherine	Tulloch	145	62	0.23
Clarendon	Beckford Kraal	140	69	0.31
Manchester	Sutton	243	103	1.15
St. Elizabeth	Y.S Estates	125	48	-0.68
Westmoreland	Sav-la-mar	254	115	N/A
Hanover	Mount Peto	490	132	0.02
St. James	Sangster	128	97	-0.03
Trelawny	Orange Valley	110	106	0.16
St. Ann	Cave Valley	310	244	1.39
St. Mary	Hampstead	129	137	-0.32
Portland	Shirley Castle	150	76	-0.46

Standardized Precipitation Index Discussion

Normal drought conditions were reported for four stations while Y.S Estates in St. Elizabeth was showing abnormally dry conditions for September. Moderately wet and very wet conditions were also reported for Sutton, Manchester and Cave Valley, St. Ann respectively.

Precipitation Outlook – October to December 2013

The Global Dynamic Models are forecasting near normal to below normal rainfall with warmer than normal air temperatures for most of the Caribbean regions. However, the northern Caribbean islands of the Bahamas are likely to receive below normal rainfall with cooler than normal air temperature for the period. While the forecast from the statistical climate predictability tool (CPT) for the same period strongly supports near normal to below normal conditions for most stations examined across Jamaica, the model demonstrates a low confidence level even with strong positive correlations between the rainfall means and sea surface temperatures across the region:

Of a total of ten stations that were examined, seven showed near normal, one below while Serge Island in the east and Sangster in the west demonstrated an above normal rainfall pattern. The overall average for Jamaica reflects a near normal rainfall pattern especially towards the latter part of the period.

Table 2. Climate Predictability Tool (CPT) Outlook OND 2013.

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley Airport	33	35	32
Sangster Airport	33	32	35
Sav-la-mar.	35	33	32
Beckford Kraal	33	35	32
Serge Island	33	32	35
Cave Valley	32	35	33
Tulloch Estate	33	35	32
Y.S. Estate	33	35	32
Hampstead	33	35	32



Orange Valley	32	35	33
Jamaica	33	35	32

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

Of the stations analysed none were showing worrying signs of drought for September. Based on the forecast for October through December for normal rainfall activity, realization of this forecast could see stations reporting deficit a lot sooner when the dry season begins. The confidence in the forecast is however, low and therefore it is unclear what scenario will play out.