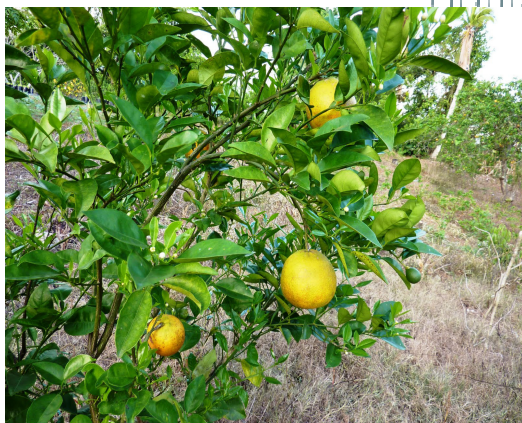


NATIONAL AGROMET BULLETIN



Issued by

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August 2013



Highlights for August 2013

- + Below normal rainfall expected for south-eastern, south-central and northwestern parishes for September through November.**
- + Mean maximum temperature exceeded at Sangster International airport.**
- + Above normal rainfall recorded over most parishes.**

Weather Summary for month of August 2013

The main rainmakers for the month of August were surface troughs. These systems had a significant impact of the island's weather which resulted in increased levels of rainfall across our two main synoptic stations. Sangster International airport (Sangster) in the northwest recorded 20% above its 30 year monthly mean while Norman Manley International airport (Norman Manley) in the southeast received 146% above its 30 year mean rainfall. During the month, Sangster recorded 110.1 mm of rainfall, while Norman Manley recorded 179.9 mm. There were thirteen rainfall days reported for Sangster, while Norman Manley had nine rainfall days during the month.

Sangster Airport recorded 35.0°C (15th August) which exceeds the 20 year mean on record for that station, while 34.6°C (3rd August) 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		

Table 1. Rainfall and Drought Analysis for Selected Stations

Parish	Station	August Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for August
St. Thomas	Serge Island	271	122	-0.13
KSA	Langley	233	114	-0.27
St. Catherine	Tulloch	411	194	0.93
Clarendon	Beckford Kraal	227	158	1.07
Manchester	Sutton	373	228	0.95
St. Elizabeth	Y.S Estates	330	121	-0.29
Westmoreland	Sav-la-mar	205	83	-0.21
Hanover	Mount Peto	343	111	-0.41
St. James	Sangster	110	122	-0.16
Trelawny	Orange Valley	51	64	-0.33
St. Ann	Cave Valley	283	199	1.20
St. Mary	Hampstead	60	65	-0.70
Portland	Shirley Castle	193	99	-0.66



Standardized Precipitation Index Discussion

Conditions have improved in Hampstead, St. Mary however the station remains in drought conditions (abnormally dry) while Shirley Castle in Portland has worsened and shares a similar fate to Hampstead. The stations in the central and western sections of the island have shown some improvement in drought conditions since for the month of August.

Precipitation Outlook – September to November 2013

The Global Dynamic Models are forecasting near normal to below normal rainfall for the Caribbean region as well as near normal to cooler than normal air temperatures for the period September through to November. While the forecast from the statistical climate predictability tool (CPT) for the same period strongly supports near normal to below normal conditions for all stations examined across Jamaica, the model demonstrates a high confidence level for below normal conditions over the following parishes: **St Thomas, Kingston and St Andrew, St Catherine, Clarendon and St James.**

Of a total of ten stations that were examined, all showed a below normal rainfall pattern, with relatively high confidence over south-eastern and south-central parishes. The overall average for Jamaica reflects a below normal rainfall pattern especially towards the latter part of the period. This forecast period coincides with the primary rainfall season and although the forecast is for below average rainfall, the island will not see any substantial drought periods.

**Table 2. Climate Predictability Tool (CPT) Outlook SON 2013.**

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley Airport	41	33	25
Sangster Airport	41	32	27
Sav-la-mar.	36	33	31
Beckford Kraal	41	35	24
Serge Island	42	31	27
Cave Valley	40	34	27
Tulloch Estate	42	32	26
Y.S. Estate	34	33	33
Hampstead	36	33	31
Orange Valley	40	32	28
Jamaica	39	33	28

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

St. Mary received some reprieve for the month of August however farmers still need to monitor the situation since the forecast is for below normal rainfall for September through November and this represents a critical replenishment period for farming interests. There is also high confidence of below normal rainfall for KSA and depending on the possible deficit water shortage for



household use could also become an issue so hydrological interests will need to pay keen attention as well.

METEOROLOGICAL SERVICE, JAMAICA