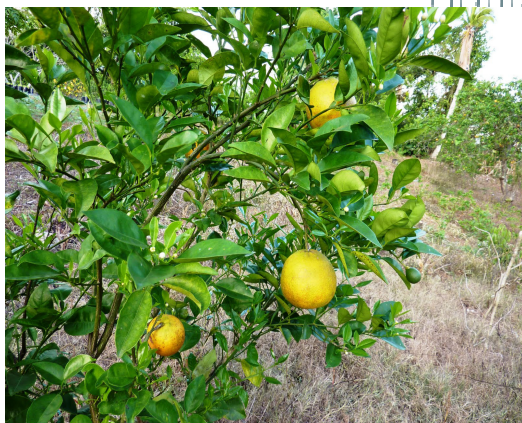


# NATIONAL AGROMET BULLETIN



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)

**July 2013**



## Highlights for July 2013

- ✚ Above normal rainfall expected for south-central and south-eastern parishes for August through October.**
- ✚ Mean maximum temperature exceeded at Norman Manley airport.**
- ✚ Northeastern parishes reporting abnormal to moderate drought conditions.**

### Weather Summary for month of July 2013

Throughout the month, the island was impacted by a combination of surface troughs, tropical waves and high pressure ridges. The troughs and tropical waves which affected the island resulted in increased levels of rainfall activity across sections of the island. Sangster International airport (Sangster) in the northwest recorded 70% of its 30 year monthly mean while Norman Manley International airport (Norman Manley) in the southeast received 79% above its 30 year mean rainfall. During the month, Sangster recorded 36.3 mm of rainfall, while Norman Manley recorded 83.6 mm. There were five rainfall days reported for Sangster, while Norman Manley had four rainfall days during the month.

Sangster Airport recorded 34.3°C (24<sup>th</sup> July), while 35.3°C (10<sup>th</sup> July) was reported for Norman Manley Airport which exceeds the 20 year mean on record for that station.



## 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	July Monthly Total (mm)	Percent of 30 year Mean (%)	SPI for July
St. Thomas	Serge Island	127	78	-0.14
KSA	Langley	91	94	<b>1.53</b>
St. Catherine	Tulloch	119	80	0.37
Clarendon	Beckford Kraal	185	213	-0.09
Manchester	Sutton	250	266	0.99
St. Elizabeth	Y.S Estates	165	92	-0.55
Westmoreland	Sav-la-mar	147	84	-0.30
Hanover	Mount Peto	138	56	<b>-0.80</b>
St. James	Sangster	36	70	-0.53
Trelawny	Orange Valley	55	102	0.79
St. Ann	Cave Valley	159	183	0.41
St. Mary	Hampstead	0	0	<b>-1.06</b>
Portland	Shirley Castle	73	52	-0.54



### **Standardized Precipitation Index Discussion**

Langley in the southeast reported very wet conditions for the month of July while drought conditions worsened in Hampstead in the northeast due to continued lack of rainfall in that area. Conditions also worsened in Hanover due to continued below normal activity in that area. Three other stations are reporting normal drought conditions namely; Serge Island, Beckford Kraal and Savanna-la-mar.

### **Precipitation Outlook – August to October 2013**

The Global Dynamic Models continues to forecast above normal rainfall for the region as well as warmer than normal air temperatures for the period August through to October. The Statistical climate predictability tool (CPT) for the same period also indicates above normal conditions for all stations examined across Jamaica. The model however did demonstrate high confidence of above normal conditions over south-eastern and south-central parishes while lower confidence of above normal forecast are likely across most northern and south-western parishes.

Of a total of ten stations that were examined, all showed an above normal rainfall pattern, with relatively high confidence over south-eastern and south-central parishes. The overall average for Jamaica reflects an above normal rainfall pattern for the period.

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

Stations	Below (B) %	Normal (N) %	Above (A) %
Manley Airport	21	34	<b>45</b>
Sangster Airport	24	33	<b>43</b>
Sav-la-mar.	26	32	<b>42</b>
Beckford Kraal	20	34	<b>46</b>
Serge Island	23	34	<b>43</b>



Cave Valley	23	33	<b>44</b>
Tulloch Estate	22	33	<b>45</b>
Y.S. Estate	27	32	<b>41</b>
Hampstead	30	32	<b>38</b>
Orange Valley	26	33	<b>41</b>
<b>Jamaica</b>	<b>25</b>	<b>33</b>	<b>42</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

Agricultural and hydrological interests in St. Mary should now be putting plans in place to minimize the effects of this ongoing drought which is affecting sections of the parish. This is because the 6- month SPI for Hampstead is now indicating a deficit of rainfall for the replenishment of watersheds due to the continued dry spell in these communities.

The Precipitation outlook is forecasting above normal rainfall for August through October (ASO) however the confidence is not high for the areas currently experiencing the worst drought conditions and therefore insufficient rainfall in these areas could make the situation much worse especially if it is looked at in the context of this period representing the primary rainfall season.