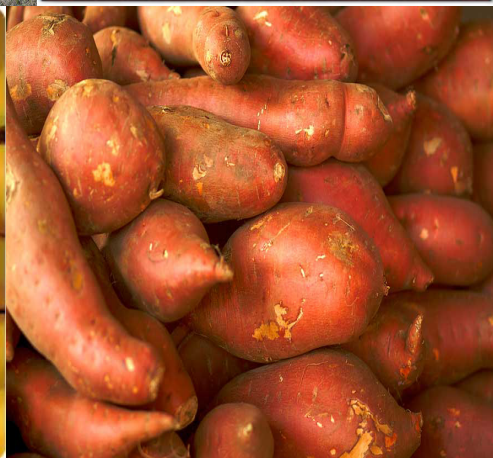
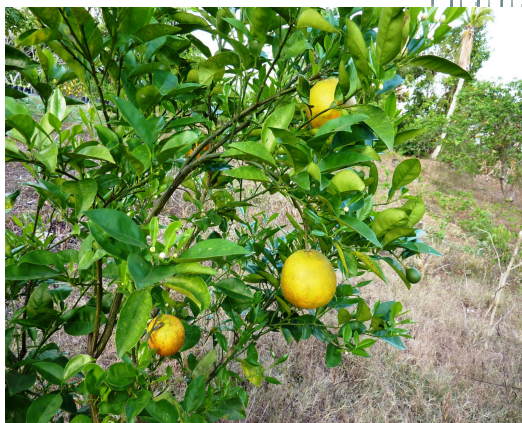


# NATIONAL AGROMET BULLETIN



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)

**June 2013**



## Highlights for June 2013

- ✚ Above normal rainfall expected for central and eastern parishes for July through September.**
- ✚ Highest rainfall amounts recorded for central and western parishes.**
- ✚ Northeastern parishes reporting moderate drought conditions.**

### Weather Summary for month of June 2013

Although the island observed no major rainfall events during the month, a significant increase in the number of tropical waves that affected the island's weather was observed during the month. Sangster International airport (Sangster) in the northwest recorded about 41% of its monthly average while Norman Manley International airport (Norman Manley) in the southeast received 29% of its 30 year mean rainfall. During the month, Sangster recorded 41.7 mm of rainfall, while Norman Manley recorded 18.8 mm. There were four rainfall days reported for Sangster and Norman Manley respectively during the month. The highest maximum temperature recorded for Sangster Airport was 35.5°C (6<sup>th</sup> June), while 34.5°C (18<sup>th</sup> June) 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        | June Monthly Total (mm) | Percent of 30 year Mean (%) | SPI for June |
|---------------|----------------|-------------------------|-----------------------------|--------------|
| St. Thomas    | Serge Island   | 57                      | 28                          | -0.18        |
| KSA           | Langley        | 24                      | 15                          | -0.30        |
| St. Catherine | Tulloch        | 182                     | 115                         | 0.19         |
| Clarendon     | Beckford Kraal | 88                      | 69                          | -0.75        |
| Manchester    | Sutton         | 84                      | 63                          | 0.57         |
| St. Elizabeth | Y.S Estates    | 76                      | 47                          | 0.18         |
| Westmoreland  | Sav-la-mar     | 171                     | 89                          | 0.16         |
| Hanover       | Mount Peto     | 233                     | 77                          | -0.08        |
| St. James     | Sangster       | 42                      | 41                          | -0.13        |
| Trelawny      | Orange Valley  | 29                      | 36                          | 0.64         |
| St. Ann       | Cave Valley    | 126                     | 95                          | 0.21         |
| St. Mary      | Hampstead      | 55                      | 64                          | <b>-1.01</b> |
| Portland      | Shirley Castle | 45                      | 31                          | <b>-1.30</b> |



### **Standardized Precipitation Index Discussion**

Moderately dry conditions are being reported for Shirley Castle in Portland and Hampstead in St. Mary. Beckford Kraal in Clarendon is reporting abnormally dry conditions. These three parishes have recorded below normal rainfall for three consecutive months; namely April to June, which represents the early replenishment period of the rainy season, therefore recovery will be needed in the late rainfall season. Four other stations are reporting normal drought conditions.

### **Precipitation Outlook – May to July 2013**

The Global Dynamic Models are forecasting that the Caribbean including Jamaica will continue to experience above normal rainfall, as well as warmer than normal air temperatures for the period July through to September. This correlates well with the outlook from the statistical climate predictability tool (CPT) for Jamaica for the same period. The model is predicting high level of confidence in forecasting an above normal rainfall season for all stations analysed across the island for the period July through to September.

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

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

| Stations         | Below (B) % | Normal (N) % | Above (A) % |
|------------------|-------------|--------------|-------------|
| Manley Airport   | 23          | 33           | 44          |
| Sangster Airport | 24          | 33           | 43          |
| Sav-la-mar.      | 27          | 33           | 40          |
| Beckford Kraal   | 22          | 33           | 45          |
| Serge Island     | 25          | 32           | 43          |



|                |           |           |           |
|----------------|-----------|-----------|-----------|
| Cave Valley    | 24        | 33        | 43        |
| Tulloch Estate | 24        | 34        | 42        |
| Y.S. Estate    | 28        | 33        | 39        |
| Hampstead      | 26        | 32        | 42        |
| Orange Valley  | 29        | 32        | 40        |
| <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 interests in St. Mary and Portland should monitor conditions as it relate to the available water content of the soil due to the deficit in rainfall combined with warm temperatures being experienced. Concern for hydrological interests however are less at this time since the drought index for the six month SPI is showing abnormally dry conditions.

The Precipitation outlook is forecasting above normal rainfall going into September especially for eastern and central parishes. Realisation of this forecast would be a welcomed improvement especially in the northeastern section of the island.