

Volume 2 Issue 1


#### Abstract

ANNOUNCEMENTS The Antigua and Barbuda Meteorological Service (ABMS) Climate Section (CliSec) will be setting up a tripartite steering committee, which will provide the basis for the long term sustainable outcome of the CAMI Project, whose overarching goal is to increase and sustain agricultural productivity at the farm level in Antigua and Barbuda and the rest of the Caribbean. The committee will comprise representatives of the ABMS, the Ministry of Agriculture and a farmer group. We continue to welcome feedback and questions from all, especially from farmers and the wider agricultural community indicating usefulness, relevance, appropriateness of language and possible changes to be made to this bulletin.


WEATHER AND CLIMATE SUMMARY IN BRIEF FOR ANTIGUA AND BARBUDA - OCTOBER 2011

Antigua and Barbuda experienced below normal rainfall during October. The total for the month was 71.6 mm ( 2.82 inches island average); this was only $44 \%$ of the normal total (1981 - 2010). This is the lowest total since 2000 and the $14^{\text {th }}$ lowest on record for the month. At Coolidge, the number of rainy days/wet days of nine (9) was below normal with one (1) heavy rainfall day ( $>=10 \mathrm{~mm}$ ). The main rain-producer of October was a tropical wave, which was responsible for over $40 \%$ of the total. Although a number of factors favoured more rainfall, the hostile upper level wind shear, which has been evident for most of the hurricane season, retarded the development of rain-producing systems. Similar wind shear wreaked havoc on the storms of September, which was welcome.

The mean temperature at Coolidge for October of $27.6^{\circ} \mathrm{C}$ was near normal; the mean daily maximum and minimum temperatures of $30.3^{\circ} \mathrm{C}$ and $25.0^{\circ} \mathrm{C}$ were below and above normal respectively.

WEATHER AND CLIMATE SUMMARY IN BRIEF FOR CAMI ISLANDS - OCTOBER 2011

Based on Standardised Precipitation Index (SPI) analysis in the Eastern Caribbean and Guyana, there was a clear distinction between the north and the south, with the south being generally above normal and the north below normal. Trinidad was generally moderately wet and Guyana ranged from moderately to very wet. Tobago, Grenada, Barbados, St. Vincent, St. Lucia and Dominica were normal. However, Antigua was moderately dry. Further to the west, Jamaica was moderately wet. Apart from the northern extreme that was abnormally wet, rainfall in Belize was near-normal.


Figure 1. Standardised Precipitation Index (SPI) for the Caribbean for October. More information on the SPI can be viewed at http://63.175.159.26/~cdpmn/spimonitor.html.


| Period | Rainfall (inches) |  |  |  | Rainfall Record - 1928 to 2011 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Previous <br> Month(s) | Actual | $\begin{gathered} \text { Normal } \\ (1981-2010) \end{gathered}$ | $\begin{gathered} \text { Anomaly } \\ (1981-2010) \end{gathered}$ | $\begin{aligned} & \text { Description } \\ & (1981-2010) \end{aligned}$ | Max | Year | Min | Year |
| 1(Oct) | 2.82 | 6.34 | - 3.52 | Below normal | 15.13 | 2008 | 1.13 | 1953 |
| 3(Aug - Oct) | 19.18 | 16.45 | + 2.73 | Above normal | 32.63 | 1995 | 6.43 | '68 \& '94 |
| 6(May - Oct) | 39.53 | 27.21 | + 12.32 | Well above normal | 45.01 | 1951 | 13.10 | '30 \& '53 |
| 9(Feb - Oct) | 47.61 | 34.81 | + 12.80 | Above normal | 55.88 | 2010 | 16.25 | 1930 |
| 12(Nov-Oct) | 56.06 | 47.37 | +8.69 | Above normal | 67.70 | 1987 | 24.88 | 1968 |
| 24(Nov-Oct) | 120.70 | 94.23 | + 26.47 | Well above normal | 132.45 | 1952 | 65.06 | 1968 |

Table 1: Rainfall (inches) over the past 24 months. The rainfall for October was the lowest since 2000 and the $14^{\text {th }}$ lowest on record.

| TEMPERATURE SUMMARY FOR ANTIGUA AND BARBUDA - OCT 2011 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean |  |  | Maximum |  |  | Minimum |  |  |
| Station | Temp( ${ }^{\circ} \mathrm{C}$ ) | Rank (Total) | Anomaly ( ${ }^{\circ} \mathrm{C}$ ) | Temp( ${ }^{\circ} \mathrm{C}$ ) | Rank (Total) | Anomaly ( ${ }^{\circ} \mathrm{C}$ ) | Temp( ${ }^{\circ} \mathrm{C}$ ) | Rank (Total) | Anomaly ( ${ }^{\circ} \mathrm{C}$ ) |
| Coolidge | 27.6 | 15(41) | + 0.1 | 31.1 | 32(41) | - 0.9 | 21.5 | 31(42) | - 0.7 |
| Jolly Hill | 27.6 | - | - | 32.8 | - | - | 21.6 | - | - |
| Table 1: Temperature Summary for Antigua and Barbuda - October 2011. Temperatures are ranked from the highest to the lowest. |  |  |  |  |  |  |  |  |  |

WEATHER AND CLIMATE OUTLOOKS FOR ANTIGUA AND BARBUDA

## MONTLY WEATHER OUTLOOK - NOVEMBER

## Rainfall

Near normal rainfall is most likely with 3.69 to
6.68 inches. Probabilistically, there is a

- 35\% chance of above normal rainfall;
- 40\% chance of near normal rainfall and
- $\mathbf{2 5 \%}$ chance of below normal rainfall.


## Temperature

Near normal temperature is most likely with 26.6
to $27.1^{\circ} \mathrm{C}$. Probabilistically, there is a

- $\mathbf{3 0 \%}$ chance of above normal temperature;
- 50\% chance of near normal temperature and
- $\mathbf{2 0 \%}$ chance of below normal temperature.


## SEASONAL OUTLOOKS - NOVEMBER TO JANUARY

## Rainfall

Near normal rainfall is most likely with 8.89 to
14.85 inches. Probabilistically, there is a

- 30\% chance of above normal rainfall;
- $\mathbf{4 5} \%$ chance of near normal rainfall and
- $\mathbf{2 5} \%$ chance of below normal rainfall.


## Temperature

Near normal temperature is most likely with
25.8 and $26.2^{\circ} \mathrm{C}$. Probabilistically, there is a

- 35\% chance of above normal temperature;
- $\mathbf{4 5 \%}$ chance of near normal temperature and
- $\mathbf{2 0 \%}$ chance of below normal temperature.

Based on the outlook through January, reasonably favourable weather conditions will prevail for farming with near normal rainfall and temperature anticipated for most of Antigua and Barbuda. However, farmers should pay attention to the 7-Day Forecast when planning specific activities.

## NATIONAL AGRICULTURAL SUMMARY

The above normal rainfall for most of the year, abated in October; this allowed for a lot of field preparation and planting by farmers. However, the above normal rainfall of previous months is still hampering some farmers, mainly in low lying areas where soil moisture levels are still quite high. Agricultural production continues to be low.

The farmers who are being hampered most by the high moisture content are the smaller farmers who rely on assistance from the Ministry of Agriculture to get their fields ploughed. Arrangements to have their fields ploughed were unsuccessful partly due to resource availability and sufficient rainfall to make the task impossible. The larger farmers have their own field preparation equipment. The field preparations of October involved the use of a lot of weedicide, fungicide and insecticide to deal with the natural by-products of the pervious above normal rainfall.

Agricultural products are even lower than they were in September. The low or nonproductions on farms have now caused significant shortages and scarcities of a number of crops such as tomatoes, sweet peppers and egg plants. For the products that are on the market, they are quite expensive as demands far exceed supplies. Naturally, imports are quite high in an effort to makeup for the shortfalls.

Notwithstanding the challenges, there were crops planted and harvested. Crops planted included cabbages, butternut squash, onions, tomatoes, sweet peppers and carrots. Crops harvested included pumpkins, root crops such as sweet potatoes and yams, bananas and egg plants. With most farmers planting around the same time, gluts are anticipated for Christmas; however, there are a number of farmers who because of the above normal rainfall for the year may not get the opportunity to plant for the rest of the year.

## International Weather and Crop Summary

EUROPE: Showers favoured winter wheat in southern Europe, while dry conditions elsewhere favoured late-autumn fieldwork.

MIDDLE EAST: Periods of rain and mountain snow maintained favourable soil moisture for winter grains from the eastern Mediterranean Coast into Iran.

SOUTH ASIA: Warm, sunny conditions aided the opening of cotton bolls in the southern half of India and winter crop development in the north.

EAST ASIA: Showers in the first half of the week brought beneficial moisture to vegetative winter crops across eastern China.

SOUTHEAST ASIA: Heavy showers continued in Vietnam, while consistent rainfall aided rice transplanting in Indonesia.

AUSTRALIA: Drier weather allowed harvesting to slowly gain momentum in Western Australia, while soaking rains in
South-eastern Australia temporarily halted fieldwork.
SOUTH AFRICA: Warm, dry weather promoted summer crop planting but moisture was needed for uniform germination and establishment.

ARGENTINA: Heavy rain further improved winter grain prospects in southern production areas.
BRAZIL: Drier conditions prevailed in south-central farming areas, promoting soybean planting and other fieldwork but reducing moisture for crop development.

## U.S. Crop Production Highlights

Corn production is forecast at 12.3 billion bushels, down 1 percent from the October forecast and down 1 percent from last year. If realized, this will be the fourth-largest U.S. production total on record. Yields are expected to average 146.7 bushels per acre, down 1.4 bushels from the October forecast and down 6.1 bushels from 2010. If realized, this will be the lowest average yield since 2003. Area harvested for grain is forecast at 83.9 million acres, unchanged from the October forecast.

Soybean production is forecast at 3.05 billion bushels, down slightly from the October forecast and down 9 percent from 2010. Yields are expected to average 41.3 bushels per acre, down 0.2 bushel from last month and down 2.2 bushels from last year. If realized, the average yield will be the second lowest since 2003. Area for harvest is forecast at 73.7 million acres, unchanged from October but down 4 percent from 2010.

All cotton production is forecast at 16.3 million 480-pound bales, down 2 percent from the October forecast and down 10 percent from last year. Yield is expected to average 794 pounds per harvested acre, down 18 pounds from last year. Upland cotton
production is forecast at 15.6 million 480-pound bales, down 12 percent from 2010. American Pima production, forecast at 737,200 bales, was carried forward from last month.

## References

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