

# ANTIGUA AND BARBUDA MONTHLY AGROMETEOROLOGICAL BULLETIN

ANTIGUA AND BARBUDA METEOROLOGICAL SERVICE CLIMATE SECTION

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## ANNOUNCEMENTS

The Antigua and Barbuda Meteorological Service (ABMS) will participate in the Caribbean Week of Agriculture slated for October 12 to 20 at the Sir Vivian Richards Stadium, Antigua. The ABMS will take part in a workshop to deal with issues surrounding water for agriculture, particularly in a changing climate. We look forward to this opportunity to interact with the Caribbean agricultural community. We continue to welcome feedback and questions from all, especially from farmers and the wider agricultural community on this and other products.

## WEATHER AND CLIMATE SUMMARY IN BRIEF FOR ANTIGUA - SEPTEMBER 2012

September was a very dry month for Antigua with near record low rainfall. The [rainfall](#) total of 30.2 mm was only 21% of the normal total (1981 – 2010). Further, this total was the lowest since 1978 and the second lowest on record (1928 – 2012). At the airport, the 6 rain days ( $\geq 1$  mm) were well below normal and the second lowest on record (1971 – 2012), with 1978 being the driest; further, there was one heavy rainfall day ( $\geq 10$  mm). The mean [temperature](#) of 28.2°C was near normal; however, on September 4, the maximum temperature reached 34.3°C, the highest for the month and the second highest on record. Further, the mean daily maximum (31.9°C) and minimum (25.2°C) temperatures were well above normal and near normal respectively. The absolute minimum temperature was 23.1°C. See table and map below.

For the period July to September (JAS) - the [rainfall](#), 207.5 mm or 8.17 inches, was well below normal, lowest since 2003 and the sixth lowest on record. The mean [temperature](#) of 28.2°C was near normal.

## WEATHER AND CLIMATE SUMMARY IN BRIEF FOR THE CARIBBEAN - SEPTEMBER 2012

Apart from St. Lucia, which was near normal, most of the Eastern Caribbean had below normal rainfall for September. Trinidad, Tobago, Grenada and St. Vincent were moderately dry; Barbados abnormally dry; Dominica exceptionally dry; and Antigua and Anguilla severely dry. Conditions in Guyana ranged from normal in the north to moderately dry in the east. Rainfall in Jamaica ranged from moderately dry in the west to moderately wet in the east; while in Belize it ranged from severely dry in the west to exceptionally dry in the east. ([rainfall descriptions](#)). See figure 1.

For JAS, apart from Barbados, much of the Caribbean had near to below normal rainfall. A number of places were moderately dry or worse. [Regional Bulletin](#)

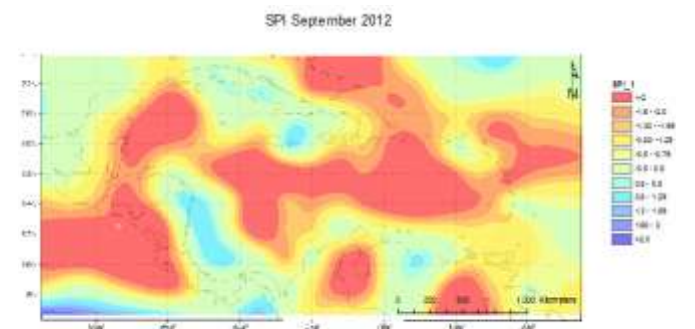
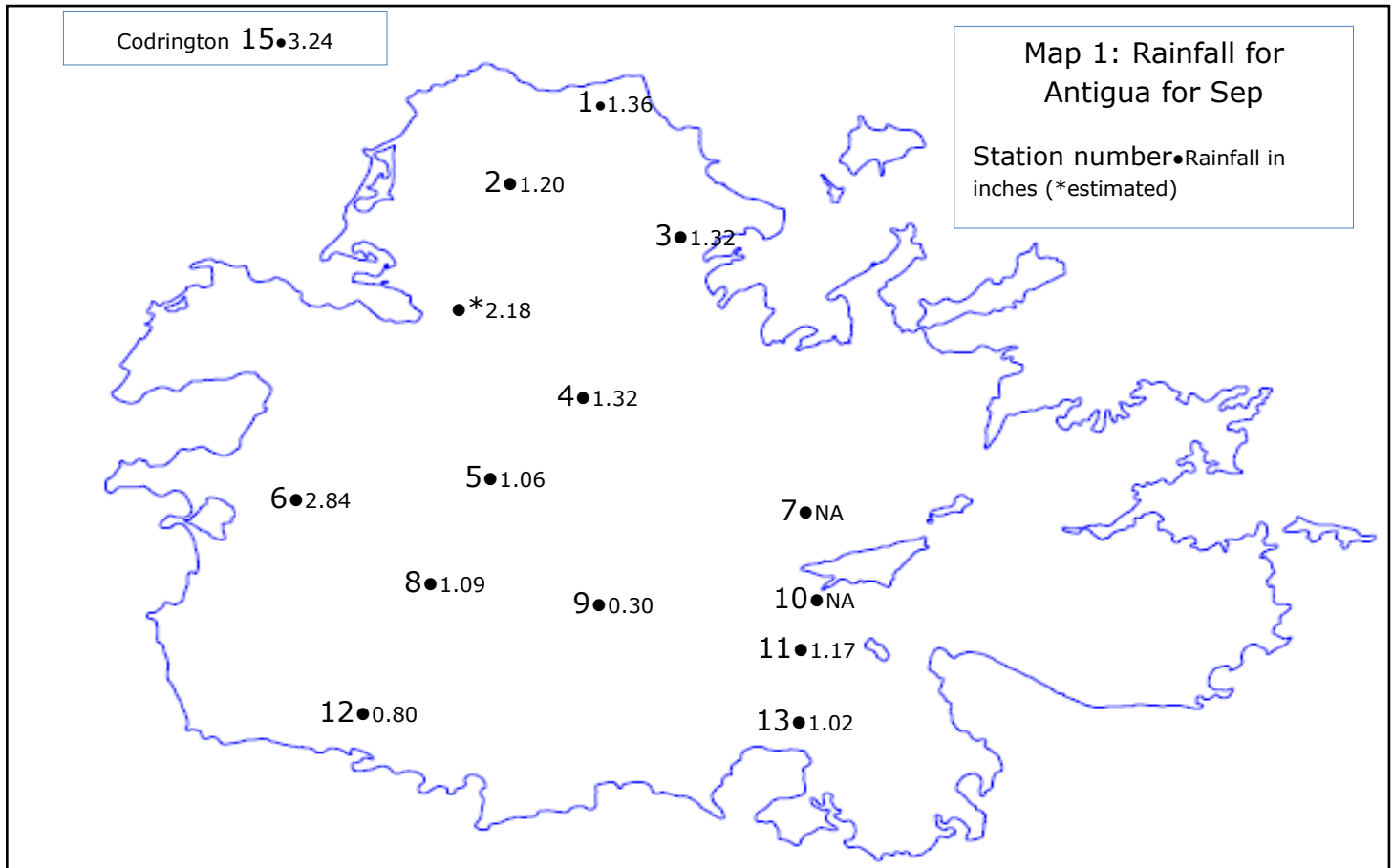


Figure 1. Standardised Precipitation Index for Sep.



| Period        | Rainfall (inches) |                      |                       | Description (1981 – 2010) | Rainfall Record – 1928 to 2012 |      |       |      |
|---------------|-------------------|----------------------|-----------------------|---------------------------|--------------------------------|------|-------|------|
|               | Actual            | Normal (1981 – 2010) | Anomaly (1981 – 2010) |                           | Max                            | Year | Min   | Year |
| 1(Sep)        | 1.19              | 5.67                 | - 4.48                | Well below normal         | 14.69                          | 1995 | 0.99  | 1978 |
| 3(Jul – Sep)  | 8.17              | 14.06                | - 5.89                | Well below normal         | 28.43                          | 1995 | 6.17  | 1968 |
| 6(Apr – Sep)  | 16.86             | 24.24                | - 7.38                | Well below normal         | 43.06                          | 2010 | 10.19 | 1939 |
| 9(Jan – Sep)  | 22.08             | 31.17                | - 9.09                | Well below normal         | 50.44                          | 1951 | 14.28 | 1939 |
| 12(Oct – Sep) | 39.27             | 47.24                | + 7.97                | Below normal              | 67.74                          | 1952 | 23.82 | 2001 |
| 24(Oct – Sep) | 103.09            | 94.20                | + 8.89                | Above normal              | 133.44                         | 1952 | 64.90 | 1966 |

Table 1: Rainfall (inches) over the past 24 months Antigua.

| TEMPERATURE SUMMARY FOR ANTIGUA AND BARBUDA – SEPTEMBER 2012 |          |              |              |              |              |              |              |              |              |
|--|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Station  | Mean     |              |              | Mean Maximum |              |              | Mean Minimum |              |              |
|  | Temp(°C) | Rank (Total) | Anomaly (°C) | Temp(°C)     | Rank (Total) | Anomaly (°C) | Temp(°C)     | Rank (Total) | Anomaly (°C) |
| Coolidge   | 28.2     | 13(42)       | +0.1         | 31.9         | 2(44)        | +0.8         | 25.2         | 13(44)       | +0.2         |
| Jolly Hill   | 28.3     | -            | -            | 32.9         | -            | -            | 23.6         | -            | -            |

Table 2: Temperature Summary for Antigua – September 2012. Temperatures are ranked from the highest to the lowest.

**WEATHER AND CLIMATE OUTLOOKS FOR ANTIGUA****MONTHLY WEATHER OUTLOOK – OCTOBER****Rainfall**

Near normal rainfall is most likely with **4.88 to 6.68 inches**. Probabilistically, there is a

- **35%** chance of above normal rainfall;
- **45%** chance of near normal rainfall and
- **20%** chance of below normal rainfall.

**Temperature**

Near normal temperature is most likely with **27.3 to 27.8°C**. Probabilistically, there is a

- **30%** chance of above normal temperature;
- **45%** chance of near normal temperature and
- **25%** chance of below normal temperature.

**SEASONAL OUTLOOKS – OCTOBER TO DECEMBER****Rainfall**

Near normal rainfall is most likely with **12.54 to 18.92 inches**. Probabilistically, there is a

- **25%** chance of above normal rainfall;
- **40%** chance of near normal rainfall and
- **35%** chance of below normal rainfall.

**Temperature**

Near normal temperature is most likely with **26.6 to 26.9°C**. Probabilistically, there is a

- **20%** chance of above normal temperature;
- **45%** chance of near normal temperature and
- **35%** chance of below normal temperature.

**NATIONAL AGRICULTURAL SUMMARY**

Rainfall deficits have reached significant levels. From all reports, the lack of adequate rainfall for farming has resulted in low crop production levels. While dry weather is important for land preparations, farms have been prepared now for quite a while to plant. If there is a silver-lining to this dismally dry weather, it is that it's unlikely to get any worse, rainfall wise, for the rest of the year.

Most farmers remain ready to plant; however, the absence of adequate rainfall is keeping many at bay. For those who have planted, artificial irrigation is almost the sole source of crop water. However, for these farmers, there are getting to their limit either because their personal water resources are drying up or it is becoming too expensive to use public water.

Naturally, there have been lots of complaints about the below normal rainfall; conditions have gotten worse in all places. Cracks are also evident in a number of fields due to very low soil moisture content. Further, even grasses are having a difficult time growing owing to the dry conditions.

The existing meteorological drought, which started in February, has reached serious levels as of the end of September. The rainfall deficit for the year, so far, is 9.09 inches - 29% below the climatological normal.

Based on the outlook through October and October to December, near normal rainfall and temperature are most likely (See inserts to the left). The outlooks are generally projecting the same or an ease in the adverse agricultural conditions for the rest of the year. For agricultural purposes and other activities, especially those sensitive to the weather, the 7-Day Forecast and the Hazardous Weather Outlook are strongly recommended as very useful inputs for planning agricultural activities.

Notwithstanding, crops planted in September included carrots, tomatoes, onions, cassavas and squashes. Meanwhile, crops harvested included most of the above items plus butternuts, okras, lattice and egg plants. Butternuts and okras are in great abundance, if not glutting the market, while scarce items include beets, egg plants and tomatoes.

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**International Weather and Crop Summary – September 23 - 29**

**EUROPE:** Heat and dryness returned to the Balkans, while much-needed rain arrived on the Iberian Peninsula.

**FSU-WESTERN:** Dry, warm weather reduced soil moisture for winter wheat establishment in southern portions of the region.

**FSU-EASTERN:** Dry weather accelerated spring wheat harvesting toward completion in Russia, while the Kazakhstan spring wheat harvest campaign was virtually complete.

**MIDDLE EAST:** Mostly dry weather favored winter grain planting after last week's showers.

**SOUTH ASIA:** The monsoon withdrew from northwestern India as dry weather throughout much of India facilitated summer crop harvesting.

**EAST ASIA:** Showers slowed maturation and harvesting in northeastern China, while beneficially warm, dry conditions aided summer crop drydown on the North China Plain and in the Yangtze Valley.

**SOUTHEAST ASIA:** Monsoon rains continued to provide late-season moisture to reproductive rice in Thailand.

**AUSTRALIA:** Showers benefited winter grains and oilseeds in Western Australia, while little rain fell across the southeast.

**ARGENTINA:** Cool, dry weather slowed growth of winter grains.

**BRAZIL:** Seasonal showers promoted soybean planting.

**MEXICO:** Showers intensified throughout the south and northwest, giving a late-season boost to rain-fed summer crops and reservoirs.

**CANADIAN PRAIRIES:** Spring grain and oilseed harvesting was rapidly nearing completion.

**EASTERN CANADA:** Drier, albeit cooler, conditions spurred late winter wheat planting and harvesting of summer crops.

## U.S. Agricultural Summary – Sep 24 to 30

**Corn:** By week's end, 94% of the corn crop was at or beyond the mature stage, 20% points ahead of last year and 22% ahead of the 5-year average. Aided by mild, mostly dry weather in the Midwest, harvest was advancing at one of the quickest paces on record. By September 30, producers had harvested 54% of the nation's corn crop, 36% ahead of last year and 34% ahead of the 5-year average. In Indiana, high levels of aflatoxin left producers reluctant to store harvested corn in on-farm bins. Overall, 25% of the corn crop was reported in good to excellent condition, up slightly from last week but 27% below the same time last year.

**Soybeans:** Leaf drop in this year's soybean crop continued to advance rapidly, evidenced by double-digit progress in 12 of the 18 estimating states during the week. Nationwide, 85% of the crop was at or beyond the leaf-dropping stage by September 30, 14% ahead of last year and 8% ahead of the 5-year average. With ample time for fieldwork, producers in over half of the major producing states harvested 13% or more of their crop during the week. By week's end, 41% of the soybean crop was harvested, 26% points ahead of last year and 22% ahead of the 5-year average. This represents one of the quickest harvest paces on record. Overall, 35% of the soybean crop was reported in good to excellent condition, unchanged from last week but 19% below the same time last year.

**Winter Wheat:** Where field conditions allowed, winter wheat seeding advanced rapidly during the week. By September 30, producers had sown 40 percent of the nation's intended 2013 acreage, 4% ahead of last year but 3% behind the 5-year average. Unfavorably dry soils in portions of the Great Plains and Pacific Northwest led to delays in seeding and crop emergence. By week's end, 12% of the winter wheat crop was emerged, on par with last year but 4% behind the 5-year average.

**Cotton:** By week's end, 78% of this year's cotton crop was at or beyond the boll opening stage, 3% behind last year but 5% ahead of the 5-year average.

The most significant delays were evident in the Carolinas, where progress was well behind both last year and normal. Nationally, 14% of the cotton crop had been harvested by September 30, slightly behind both last year and the 5-year average. In Texas, many producers in northern and western regions were ready to begin defoliation in the coming weeks. Overall, 42% of the cotton crop was reported in good to excellent condition, down slightly from last week but 13% better than the same time last year.

**Rice:** In the Delta, harvest slowed as progress neared completion well ahead of the normal pace. Nationally, producers had harvested 75% of this year's rice crop by September 30, 14% ahead of last year and 11 points ahead of the 5-year average. In California, overall progress was 20% behind normal despite harvest being in full swing.

**Other Crops:** By week's end, 22% of the peanut crop was harvested, 5% ahead of last year and 6% ahead of the 5-year average. In Georgia, producers in some areas were rapidly digging peanuts ahead of forecasted rainfall. Overall, 79% of the peanut crop was reported in good to excellent condition, up 2% from last week and 40% better than the same time last year.

By September 30, producers had harvested 19% of the sugarbeet crop, 8% ahead of last year and 4% ahead of the 5-year average. In Michigan, sunny days coupled with cool nights aided overall quality of the crop, as producers anticipated an October 22 start to open piling and long-term storage.

With double-digit progress aided by mild, dry weather in the Dakotas during the week, sunflower producers had harvested 14 percent of the nation's crop by September 30. This was 11 percentage points ahead of both last year and the 5-year average.

**References**

Caribbean Institute for Meteorology and Hydrology  
*CAMI Monthly Bulletin*, [online]. Available from:  
<[http://63.175.159.26/~cimh/cami/regional\\_bulletin.html](http://63.175.159.26/~cimh/cami/regional_bulletin.html)> [Accessed 16 July, 2012]

United States Department of Agriculture, *Weekly Weather and Crop Bulletin*, [online] Available from:  
<[http://usda01.library.cornell.edu/usda/waob/weather\\_weekly//2010s/2012/weather\\_weekly-06-27-2012.pdf](http://usda01.library.cornell.edu/usda/waob/weather_weekly//2010s/2012/weather_weekly-06-27-2012.pdf)> [Accessed 18 July, 2012]

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