

# 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) [Climate Section](#) is soliciting feedback via our [weather survey](#). Please participate and help us to improve the way weather information is communicated. Also, 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 - FEBRUARY 2013

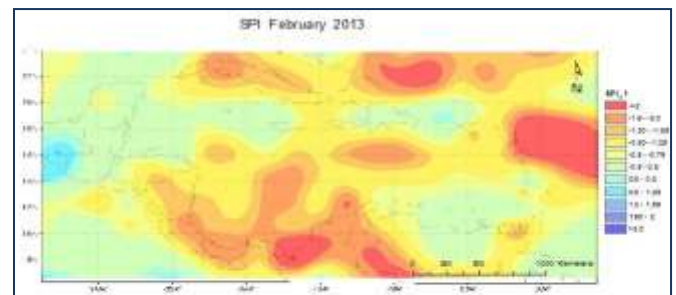
The island had the lowest rainfall for February in a generation; in some locals, it was the driest February in over two generations. The [rainfall](#) total of 10.7 mm or 0.42 inches – the driest since 1983 and the second driest on record (1928 – 2013). At the airport, there were only three wet days ( $\geq 1$  mm); this tied with February 2010 for the second lowest on record. The wettest day only had 2.2 mm. The mean [temperature](#) of 25.2°C was near normal. Meanwhile, the mean daily minimum temperature (23.1°C) tied February 2007 for the highest on record; on the other hand, the mean daily maximum temperature (28.1°C) was near normal. Additionally, the absolute maximum and minimum temperatures were 28.6°C and 18.8°C respectively. See tables and maps below.

The period December to February (DJF) had below normal rainfall, the 10<sup>th</sup> driest on record and the driest since 2000. Further, November to February is the third driest on record and the driest since 1968, for the given period. The rainfall deficit for NDJF is 6.78 inches, which is considered severe; hence, the [meteorological drought](#) continues.

The mean [temperature](#) for DJF of 25.5°C was also near normal.

## WEATHER AND CLIMATE SUMMARY IN BRIEF FOR THE CARIBBEAN – FEBRUARY 2013 ([Taken from CIMH](#))

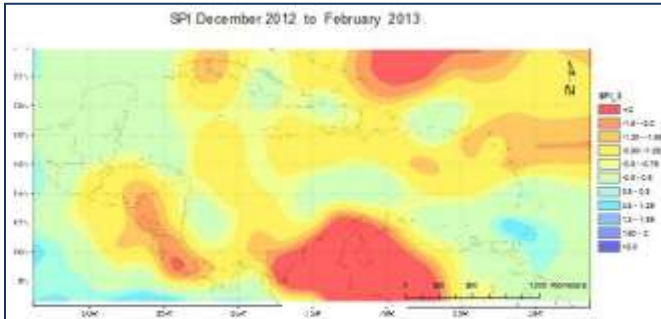
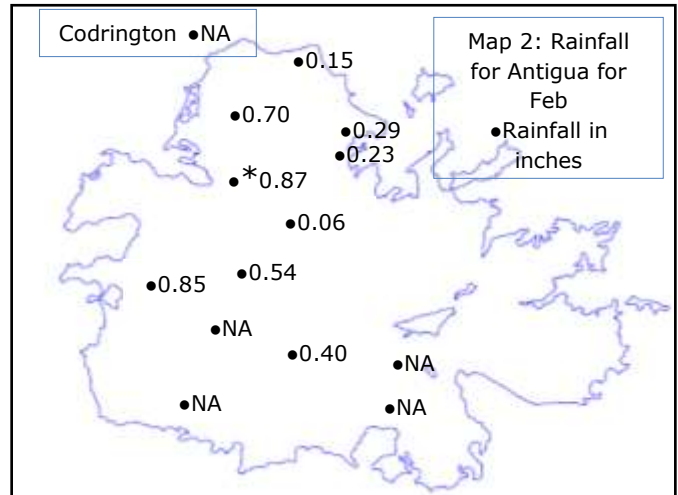
Conditions in the eastern Caribbean and Guyana were normal to below normal. Trinidad was severely dry; Tobago abnormally dry; Grenada, St. Lucia and Guyana normal; Barbados and St. Vincent, moderately dry; Dominica extremely dry; and Antigua exceptionally dry. Jamaica was normal in the west and abnormally dry in the east. Meanwhile Belize was normal. Click on map 1 for larger view. ([rainfall descriptions](#)).



Map 1. [Standardised Precipitation Index for Feb](#)

Most annual cropping takes place over a period of about three months. Trinidad and St. Lucia were abnormally wet; Tobago and Grenada moderately wet; Barbados, St. Vincent and Guyana normal; Dominica moderately dry; and Antigua severely dry. Apart from the western extremity that was abnormally dry, Jamaica was moderately dry. Belize was abnormally dry in the south and normal in the north. Click on map 2 for larger view.

Concern about agricultural drought in the western Caribbean, including Jamaica and Belize, continues. The area of concern in the northern Caribbean has extended south along the eastern chain to Grenada. With normal dry season conditions expected to persist for march and into May water availability levels must be closely monitored. Some countries may have to issue drought and water watches or alerts. [Regional Bulletin](#)



Map 3. Standardised Precipitation Index for DJF

Period	Rainfall (inches)			Description (1981 – 2010)	Rainfall Record – 1928 to 2013			
	Actual	Normal (1981 – 2010)	Anomaly (1981 – 2010)		Max	Year	Min	Year
1(Feb)	0.42	2.20	- 1.78	Well below normal	5.15	1982	0.32	1982
3(Dec – Feb)	5.42	8.89	- 3.47	Well Below normal	17.16	1936	3.28	1930
6(Sep – Feb)	21.83	26.68	- 4.85	Below normal	42.36	1936	13.78	1930
9(Jun – Feb)	29.34	37.39	- 8.05	Below normal	58.31	1936	21.12	1930
12(Mar – Feb)	38.51	46.44	- 7.93	Below normal	71.77	1936	23.95	1930
24(Mar – Feb)	102.81	93.88	+ 8.93	Above normal	129.80	2010	65.22	1929

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

TEMPERATURE SUMMARY FOR ANTIGUA AND BARBUDA – FEBRUARY 2013									
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	25.2	16(43)	0.0	28.1	26(45)	- 0.3	23.1	1(45)	+ 0.9
Jolly Hill	25.4	-	-	29.5	-	-	21.2	-	-

Table 2: Temperature Summary for Antigua – February 2013. Temperatures are ranked from the highest to the lowest.

**WEATHER AND CLIMATE OUTLOOKS FOR ANTIGUA****MONTLY WEATHER OUTLOOK – MARCH****Rainfall**

Below normal rainfall is most likely with less than **1.31 inches**. Probabilistically, there is a

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

**Temperature**

Near normal temperature is most likely with **25.4 to 25.7°C**. Probabilistically, there is a

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

**SEASONAL OUTLOOKS – MARCH TO MAY****Rainfall**

Below normal rainfall is most likely with less than **6.60 inches**. Probabilistically, there is a

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

**Temperature**

Above normal temperature is most likely with greater than **26.5°C**. Probabilistically, there is a

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





**NATIONAL AGRICULTURAL SUMMARY**

A [meteorological drought](#) is firmly in effect. The near record low rainfall experienced during February has reinforced the drought, which started in November. However, things would have been much worse if not for the above normal rainfall for January. The current drought is considered serious based on the deficit for the period November to January. Of course, the presence of a meteorological drought means that there

also exists an agricultural drought. However, most of the impacts of the drought, particularly to agriculture, continue to be mask, mainly for farmers with irrigation potential. The present drought will likely transitioned into a [hydrological drought](#), in a couple months, at which time, the impacts on agriculturalist and the general population will be unmistakable. Already, the water authority is talking about bring online an additional desalination plant to makeup or reduce the possible shortfall.

The outlooks for the next three months do not look very encouraging for farming with respect to weather. The projection of below normal rainfall for the period March – May could result in the drought getting worse. Thus, water for irrigation could become scarce. With respect to the temperature, the same period is expected to have above normal values. (See inserts on the left). 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 tools for planning day-to-day agricultural activities.

With conditions being the way they were, it was another good month for field preparation and harvesting; also, for planting by those with irrigation and access to pipe-bourn water, which many do. During the month, the crops planted included tomatoes, seasoning peppers, bell peppers, zucchini squashes, butternut squashes and cucumbers. Meanwhile, crops harvested included much of what were mentioned above plus okras and sweet potatoes. Scarce items include yams and butternuts. Glutting the market are tomatoes and chives. With the dry weather giving rise to many occurrences of sunny skies, a few young seedlings and fruits of peppers have shown signs of sun scorching. Please see our website for more products: [www.antiguamet.com/Climate](http://www.antiguamet.com/Climate)

<b>MOON PHASES FOR MARCH – MAY 2013</b>			
<b>New Moon</b>	<b>First Quarter</b>	<b>Full Moon</b>	<b>Last Quarter</b>
			
<b>March</b>			
Mon 11	Tue 19	Wed 27	Mon 4
<b>April</b>			
Wed 10	Thu 18	Thu 25	Wed 3
<b>May</b>			
Thu 9	Sat 18	Sat 25	Thu 2

### International Weather and Crop Summary (Highlights) – Feb 17 to 23

**EUROPE:** Cold, snowy weather across northern and central Europe was favorable for dormant winter crops, while showers continued in the south and west.

**WESTERN FSU:** Unseasonable warmth in the south eased winter grains out of dormancy and prompted unusually early spring grain planting.

**MIDDLE EAST:** Mild, unsettled weather benefited winter grains, although crops remained dormant in central Turkey.

**NORTHWEST AFRICA:** Rain continued, maintaining favorable prospects for vegetative winter grains.

**SOUTHEAST ASIA:** Somewhat drier conditions in Java, Indonesia, aided rice maturation, while flooding rains caused harvest delays and some damage to rice and corn in the eastern Philippines.

**AUSTRALIA:** Scattered showers continued to benefit immature cotton and sorghum.

**SOUTH AFRICA:** Warm, dry weather hastened development of rain-fed summer crops but limited moisture remained a problem in western sections of the corn belt.

**ARGENTINA:** Rainfall intensified throughout major summer grain, oilseed, and cotton areas, although unseasonable dryness persisted in southern-most production areas.

**BRAZIL:** Beneficial rain continued in key corn and soybean areas of southern and central Brazil, but pockets of dryness lingered in the northeastern interior.



## U.S. Agricultural Summary (Highlights) – Feb 17 to Feb 23

Cooler-than-normal weather dominated much of the nation during the week. Most notably, a large winter storm held weekly temperatures more than 9°F below average in portions of the Corn Belt and Great Plains. Conversely, warm weather and mostly dry conditions in southern Texas provided producers plenty of time for fieldwork. Much of the central Great Plains and Southeast received above-average precipitation during the week, boosting soil moisture levels.

Heavy rainfall pounded Florida's Panhandle, aiding the developing winter wheat crop. Conversely, much of the remainder of the state received less than one-tenth of an inch of moisture during the week. By February 19, abnormally dry to extreme drought conditions covered 91 percent of the state.

Early-week freezes caused some damage to potato fields. Strawberry harvest was ongoing in central Florida, while sweet corn, watermelon, and a variety of winter vegetables were planted in Miami-Dade County. Irrigation continued across the citrus region, as drought conditions spread. Grove activities included general maintenance and fertilization. Valencia harvest was underway.

While much of Texas was dry, some northern and eastern locations received more than an inch of precipitation during the week. Despite slight improvement in winter wheat conditions, additional moisture will be needed to sustain crop growth. Row crop producers in the Plains regions applied fertilizers and herbicides in anticipation of rain. Dry conditions in the Edwards Plateau and South Central regions delayed cotton planting.

Chile fields were prepared in the Trans-Pecos, while onions and potatoes were planted in East Texas. In Arizona, scattered precipitation and below-average temperatures promoted fieldwork during the week. Producers continued to harvest hay from approximately two-thirds of the state's alfalfa fields, while sheep grazed various alfalfa fields in many areas. Small grain seeding was virtually complete. Fruit and vegetable growers in central and western portions of the state continued to ship a variety of crops.

Cool weather and light, widespread moisture blanketed California during the week. Small grain crops showed good growth due to recent moisture; however, most

dryland crops needed additional precipitation to sustain development. Field crop producers applied fertilizers and herbicides. Fruit and nut orchards were irrigated because of the lack of significant rainfall. Bloom was underway in almond orchards. A variety of vtruid citrus crops continued to be harvested. Vegetable growers prepared land for spring crops, while many crops were being harvested.

### 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 Mar, 2013]

United States Department of Agriculture, *Weekly Weather and Crop Bulletin*, [online] Available from: <[http://usda01.library.cornell.edu/usda/waob/weather\\_weekly//2010s/2013/weather\\_weekly-02-26-2013.pdf](http://usda01.library.cornell.edu/usda/waob/weather_weekly//2010s/2013/weather_weekly-02-26-2013.pdf)> [Accessed 16 Mar, 2013]

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