



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](#) looks forward to participating in the [CAMI](#) e-forum, which is set to recommence shortly. 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 - DECEMBER 2012

December was another very dry month for Antigua. The [rainfall](#) total of 52.6 mm or 2.07 inches was well below normal and the 15th lowest on record for the month (1928 – 2012). This was also the driest December since 2005 and amounting to only 52% of the normal total of 101.09 mm or 3.98 inches. At the airport, there was no heavy rainfall day (≥ 10 mm) for only the eighth time on record; the last time this happened for December was 2003. Meanwhile, the 10 wet days (≥ 1 mm) were below normal (1981 – 2012), and it is the third lowest rainfall accumulation for wet days in December. The mean [temperature](#) of 26.1°C was the warmest since 2009; however, it was near normal and above normal respectively. Meanwhile, the mean daily maximum (28.8°C) and minimum (23.8°C) temperatures were near normal and above normal respectively. Additionally, the absolute maximum and minimum temperatures were 29.8°C and 21.3°C respectively. See tables and maps below.

For the period October to December (OND) - the [rainfall](#), 439.2 mm or 17.29 inches, was near normal. The mean [temperature](#) of 26.7°C was also near normal.

WEATHER AND CLIMATE SUMMARY IN BRIEF FOR THE CARIBBEAN - DECEMBER 2012

In the Eastern Caribbean and Guyana, there was a clear distinction between the normal to above normal south and normal to below normal north. Trinidad and Barbados were abnormally wet; Tobago, Grenada, and St. Lucia moderately wet; Guyana from extremely wet in the north to normal in the east; St. Vincent and Dominica normal; and Antigua moderately dry. Jamaica ranged from moderately dry in the west to normal in the east. Conditions in Belize ranged from moderately dry in the south to normal in the north. Click on figure 1 for larger view. ([rainfall descriptions](#)).

For OND, conditions in the eastern Caribbean and Guyana were diverse. Trinidad, St. Vincent, and Antigua were normal; Tobago and St. Lucia abnormally wet; Grenada, Barbados and Dominica moderately dry; and Guyana from moderately wet in the north to normal in the south. Jamaica was normal. Conditions in southern Belize were moderate and the northern areas abnormally dry.

Concern about agricultural drought in the southern Caribbean, particularly in the vicinity of Grenada; was relieved to some extent during a moderate to very wet December. However, the conditions should continue to be monitored over the coming months. Attention has now turned to the western Caribbean (including Belize) where

conditions over the past three months have been drier than normal. With a normal to below normal dry season being predicted, this may be a cause for some concern.

[Regional Bulletin](#)

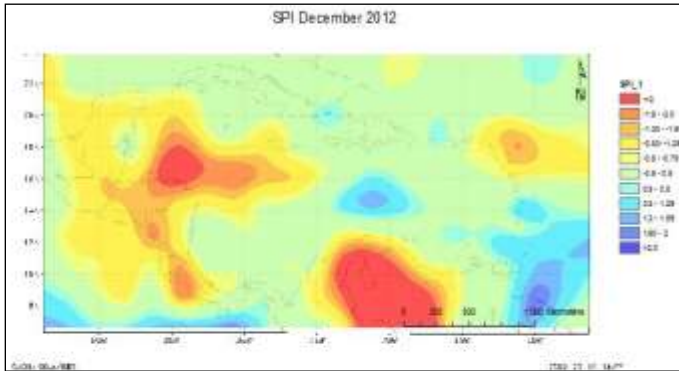
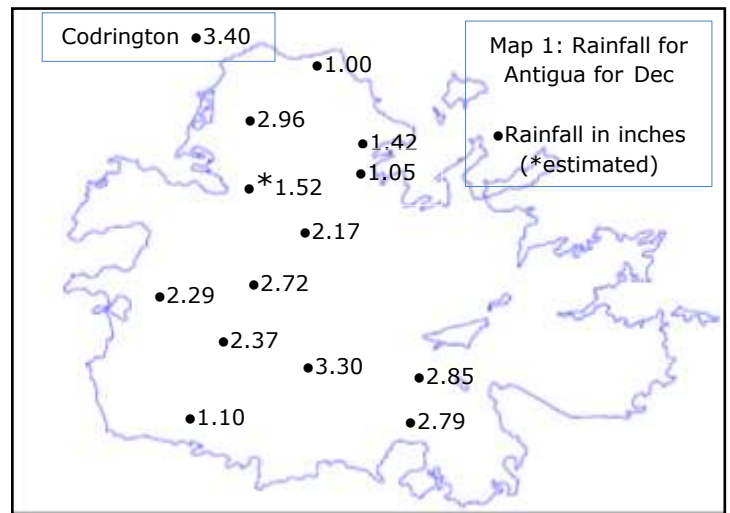


Figure 1. Standardised Precipitation Index for Dec



Period	Rainfall (inches)			Description (1981 – 2010)	Rainfall Record – 1928 to 2012			
	Actual	Normal (1981 – 2010)	Anomaly (1981 – 2010)		Max	Year	Min	Year
1(Dec)	2.07	3.98	-1.91	Below normal	11.02	1971	0.96	1947
3(Oct – Dec)	17.29	16.19	+1.10	Near normal	31.18	1999	5.63	1983
6(Jul – Dec)	25.46	30.26	-4.80	Below normal	44.26	1951	15.97	1983
9(Mar – Dec)	34.15	40.43	-6.28	Below normal	62.60	1979	22.47	1930
12(Dec – Nov)	39.37	47.37	-8.00	Below normal	69.45	1951	26.83	1983
24(Dec – Nov)	102.74	93.86	+8.88	Above normal	133.02	1951	66.55	1929

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

TEMPERATURE SUMMARY FOR ANTIGUA AND BARBUDA – DECEMBER 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	26.1	8(42)	+0.2	28.8	16(44)	-0.5	23.8	3(44)	+0.8
Jolly Hill	25.8	-	-	29.7	-	-	22.0	-	-

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

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

Near normal rainfall is most likely with **2.01 to 2.82 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 **25.2 to 25.6°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 – JANUARY TO MARCH**Rainfall**

Near normal rainfall is most likely with **5.67 to 7.83 inches**. Probabilistically, there is a

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

Temperature

Above normal temperature is most likely with **greater than 25.5°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





The drought, which started in February last year and reach serious levels in September, came to an abrupt end in October. However, since then rainfall totals have been below normal, resulting in a significant rainfall deficit accumulation again. Thus, barring near record rainfall for January, which is unlikely, the island will slip back into a meteorological drought. The island could be back on the road to island-wide water

rationing by the water authority, which was diffused by the flooding rainfall of October.

With conditions being quite dry for the past couple of months, many farmers, who harvest water, would have been depleting their reserves. This depletion would have started in the wet season and now carrying over into the dry season. Ideally, farmers would want to be increasing their water storages in the wet season to be used in the dry season.

Despite the high likelihood of a drought, due to the below normal rainfall of November and December, the outlook for the next three months, January to March, looks fairly encouraging. The projection of near to above normal rainfall should result in the rainfall deficit not falling too low. Thus, water should be available for irrigation during the dry spells. With respect to temperature, the same period is expected to have above normal values, which may have a negative impact on some crops that only thrive at this time of the year. (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 agricultural activities.

With conditions being the way they were, it was a good month for field preparation and harvesting. Also for planting since there is water reserves from the rainfall of October. During the month, the crops planted included tomatoes, sweet peppers, egg plants, cucumbers. Meanwhile, crops harvested included much of what were mentioned above plus pumpkins, okras, sweet potatoes, carrots, cabbage and spinaches. Pumpkins continued to glut the market while scarce items included tomatoes, sweet peppers, onions, butternuts, season peppers and yams. As for pests, worms were posing a bit of a challenge. Please see our website for more products: www.antiguamet.com/Climate

MOON PHASES FOR JANUARY – MARCH 2013			
New Moon	First Quarter	Full Moon	Last Quarter
			
January			
Fri 11	Fri 18	Sun 27	Fri 4
February			
Sun 10	Sun 17	Mon 25	Sun 3
March			
Mon 11	Tue 19	Wed 27	Mon 4

International Weather and Crop Summary (Highlights) December 16 - 22

EUROPE: Wet, mild weather maintained generally favourable conditions for winter grains and oilseeds.

WESTERN FSU: Bitter cold maintained a heightened risk for burnback and winterkill of exposed winter grains in Russia, while wind-driven snow continued to fall across western and southern portions of the region.

MIDDLE EAST: Heavy rain and high-elevation snow persisted from Turkey into northern Iran, favouring winter wheat and barley.

NORTHWEST AFRICA: Sunny skies favoured winter wheat and barley establishment after a wetter-than-normal autumn.

SOUTHEAST ASIA: Rain in Java, Indonesia, benefited vegetative rice.

AUSTRALIA: Hot, mostly dry weather favoured winter grain harvesting in western and southeastern Australia.

SOUTH AFRICA: Warm, mostly dry weather promoted development of rain-fed summer crops.

ARGENTINA: Heavy rain returned to central Argentina, further disrupting corn and soybean planting.

BRAZIL: Showers maintained favourable levels of moisture for soybeans in southern production areas.

U.S. Agricultural Summary (Highlights) Dec 17 to 23

Despite a large, late-week winter storm that brought heavy snow to portions of the Midwest and Ohio Valley, temperatures throughout much of the United States were above average during the week. Most notably, portions of the Northeast and Great Lakes region recorded weekly averages more than 10°F above normal. Conversely, temperatures in the Four Corners region dipped to more than 12°F below average. While much of the Great Plains remained dry, beneficial precipitation fell across much of the country east of the Mississippi River and from the Rocky Mountains westward.

The arrival of winter brought Florida's first cold front of the season, with varied rainfall totals and temperatures dipping into the mid-20s (°F) in northern portions of the State; however, overwintered small grain crops were in need of additional moisture. Fruit and vegetable growers continued to market a variety of crops, as they prepared to check for damage done by the sub-freezing temperatures. Mostly warm weather and only light rainfall in the citrus-producing region led to heavy irrigation in most orchards. Early and mid-season oranges harvest continued at a rapid pace. Grove activity included pre-harvest mowing and other general maintenance.

Arizona recorded mostly below-average temperatures and light, widespread rainfall during the week. Despite recent improvements in moisture levels, the long-term drought effects remained severe with pastures and ranges rated in mostly very poor to fair condition. Alfalfa hay was being harvested from nearly half of the State's acreage, as sheep were turned out to graze other alfalfa fields. Fruit and vegetable growers shipped a variety of crops during the week.

California received widespread precipitation from a series of storms during the week. As a result, most small grain crops were reported in good to excellent condition, as some producers in southern portions of the State seeded their rice fields with winter crops. Fruit growers continued to prune, disc, and shred vineyards and stone fruit orchards. A variety of fruit crops were still being harvested, including table grapes, kiwi, persimmon, and pomegranate. Winter vegetables were growing well in Tulare County, while producers in Fresno County harvested broccoli, cabbage, carrots, and lettuce. Field activities included fumigation for next year's melon, onion, and tomato fields.

Caribbean Institute for Meteorology and Hydrology
CAMI Monthly Bulletin, [online]. Available from:
<http://63.175.159.26/~cimh/cami/regional_bulletin.html> [Accessed 15 Jan, 2013]

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-12-27-2012.pdf> [Accessed 15 Jan, 2013]

Acknowledgements

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