ANTIGUA AND BARBUDA
MONTHLY AGROMETEOROLOGICAL BULLETIN

ANTIGUA AND BARBUDA METEOROLOGICAL SERVICE CLIMATE SECTION

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ANNOUNCEMENTS

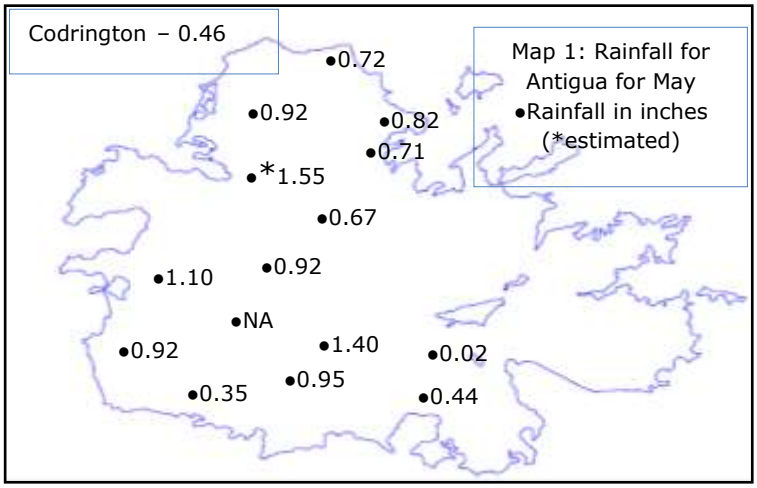
The Antigua and Barbuda Meteorological Service (ABMS) Climate Section will be taking part in a consultation in late July with climate scientists at the International Research Institute for Climate and Society, New York. The aim of the consultation is to further advance climate services in the Caribbean. The ABMS Climate Section has started to publish a monthly newsletter to highlight recent weather and climate events, and the outlooks for the upcoming months. We continue to welcome feedback on this on all of our other products.

WEATHER AND CLIMATE SUMMARY IN BRIEF FOR ANTIGUA – MAY 2015

Warm nights and severely dry weather prevailed during May. The month had total rainfall of 20.8 mm (0.82 in); the lowest since 2001 and the fourth lowest on record dating back to 1928. At the V. C. Bird International Airport, the three wet days (days with at least 1 mm/0.04 in) tied the record lowest. There were no heavy rainfall days (days with at least 10 mm/0.40 in), the first time since 2007.

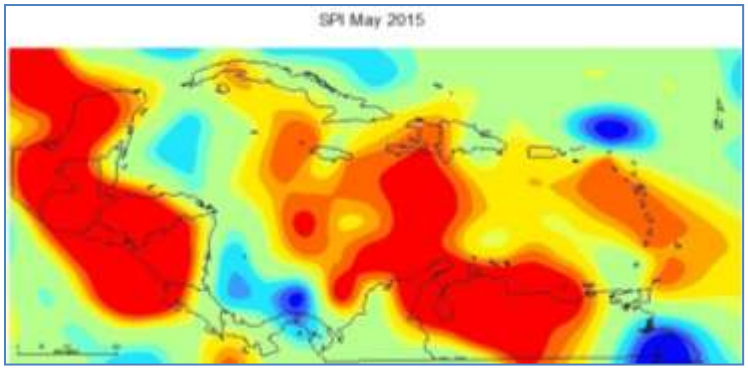
Like most other months for the year, except March, the mean minimum (night-time) temperature was much warmer than normal. It was 25.0 °C (77 °F), the highest since 2010 and tied with May 1973 for the fifth highest for the month on record dating back to 1971. The other temperatures were near normal; the absolute maximum and minimum temperatures were 31.6 °C (88.9 °F) and 22.1 °C (71.8 °F) respectively.

Meanwhile, spring–March to May (MAM), had well below normal rainfall–70.6 mm (2.78 in); it's the third driest spring on record and the tenth driest season overall. The mean temperature for spring was near normal–26.3 °C (79.3 °F), but the highest since 2009.



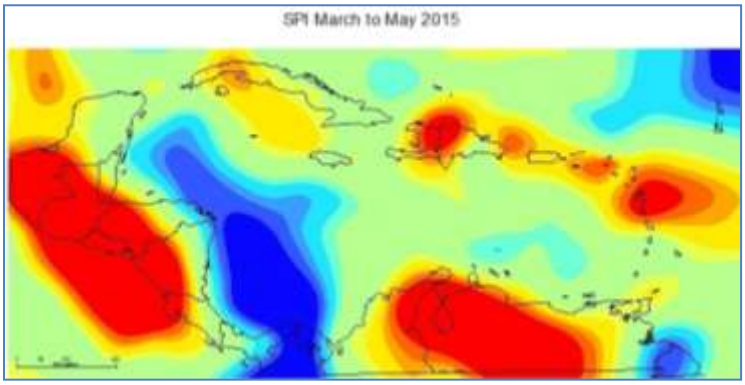
WEATHER AND CLIMATE SUMMARY IN BRIEF FOR THE CARIBBEAN – MARCH TO MAY 2015

[With respect to rainfall] normal to below normal conditions persisted in the islands of the Eastern Caribbean. Trinidad was normal to slightly dry; Tobago, Barbados, St. Vincent severely dry; St. Lucia, Dominica and St. Kitts extremely dry; St. Maarten moderately dry; Anguilla normal and St. Croix slightly dry. Guyana was exceptionally wet in the west and extremely wet in the east (SPI explanation). Read more…



Map 2: Standardised Precipitation Index (SPI) for May

For the three month period [MAM], normal to below normal rainfall was experienced in the Eastern Caribbean islands. Trinidad was slightly dry; Tobago, St. Kitts and Anguilla moderately dry; Grenada, Barbados, St. Vincent and St. Lucia normal… Read more…



Map 3: Standardised Precipitation Index for MAM

WEATHER AND CLIMATE OUTLOOKS FOR ANTIGUA

EXPERIMENTAL MONTHLY OUTLOOK – JUNE

Rainfall
Below normal rainfall is most likely i.e. less than **53.3 mm** (2.1 in). Probabilistically, there is a

- 20% chance of above normal rainfall;
- 30% chance of near normal rainfall and
- **50%** chance of below normal rainfall.

Temperature
Near to above normal temperature is most likely i.e. greater than **27.8 °C** (82 °F). 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 – JUNE TO AUGUST

Rainfall
Below normal rainfall is most likely i.e. less than **226.1 mm** (8.9 in). Probabilistically, there is a

- 15% chance of above normal rainfall;
- 25% chance of near normal rainfall and
- **60%** chance of below normal rainfall.

Temperature
Near to above normal temperature is most likely i.e. greater than **28.0 °C** (82.4°F). Probabilistically, there is a

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

NATIONAL AGRICULTURAL SUMMARY

With May being extremely dry, the ongoing drought has dipped to severe levels. This means that the rainfall total for the last three months (March-May) was among the 5% driest such period. In this case, it is the third driest March-May on record. Of course, with this severely dry period, surface and ground water levels have dwindled further. However, the impacts of the drought continue to be mask by the country's desalinated water resources, without which we would be in a socio-economic crisis.

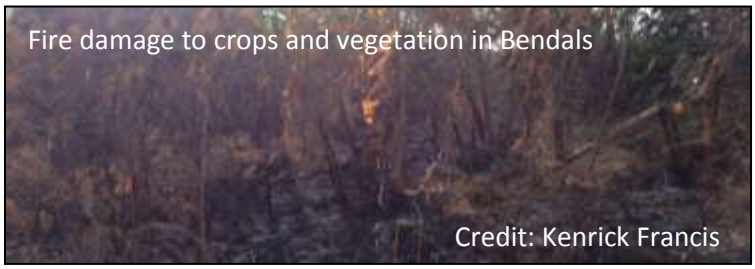
Agriculture extension officers have estimated that about two-thirds of the country's approximately 1500 farmers are out of business due to the severe rainfall deficits. Those out of business are mainly the smaller farmers, which amounts to around one-third of all agricultural lands. For those who are able to produce, it is mainly with the use of potable water, which has significantly increased the cost of production.

According to Antigua Public Utility Authority (APUA) – the water resource authority, half of the country's major surface water catchments - Hamilton, Big Creek and Break Knocks are below extraction levels. Meanwhile, the other surface catchments, including Potworks Dam, are weeks away from drying up. The country is projected to be out of surface water by the end of July, if there are no serious downpours. Normally, surface water contributes to around 30% of the country's potable water mix. Desalinated water from the sea, which is about five times more costly than surface water resources, is expected to take up most of the shortfall.

Compared to this time last year, farming conditions are much worse. January-May 2015 is about 44% drier than the same period last year, and overall, it is around 62% drier than normal. Farmers are having difficulties germinating crops while some existing ones are wilting. According to extension officers, the poor rainfall has caused difficulty in germinating crops, stunted growth, delayed maturity due to heat stress and abortion of fruits and flowers.

Farmers are encouraged to practice climate smart agriculture, which emphasizes the need for water conservation and efficiency. This is especially so in times of rainfall deficits. Water efficiency by farmers can be improved by making the right decisions on crop selection, irrigation scheduling and methods and source of water.

Crops harvested and planted during May included corns, okras, sweet potatoes, yams, tomatoes and sweet peppers. Losses of crops including cabbages and eggplants were reported due the dry conditions, related pests and fires. Crop importations are also up due to scarcities on the market caused by the austere farming conditions.


Fire damage to crops and vegetation in Bendals

Credit: Kenrick Francis

The outlooks for rainfall remain disheartening: below normal for the next six months. (See inserts on the left). For agricultural and other activities the 7-Day Forecast and the Hazardous Weather Outlook are recommended as useful short term planning tools.

Acknowledgements
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Produced by Dale C. S. Destin (follow @anumetservice)