



# 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 (CliSec) with the support of the Caribbean Agro-Meteorological Initiative (CAMI) is proud to announce the first monthly agrometeorological bulletin. This bulletin seeks to be a vital source of information on weather, climate and agricultural developments nationally, regionally and internationally. Emphasis will be placed on rainfall, which is the most variable and limiting climate parameter in agriculture in Antigua and Barbuda. Feedback and questions on this bulletin are welcome from all, especially from farmers and the wider agricultural community indicating usefulness, relevance, appropriateness of language and possible changes to be made.

## WEATHER AND CLIMATE SUMMARY IN BRIEF FOR ANTIGUA AND BARBUDA - SEPTEMBER 2011

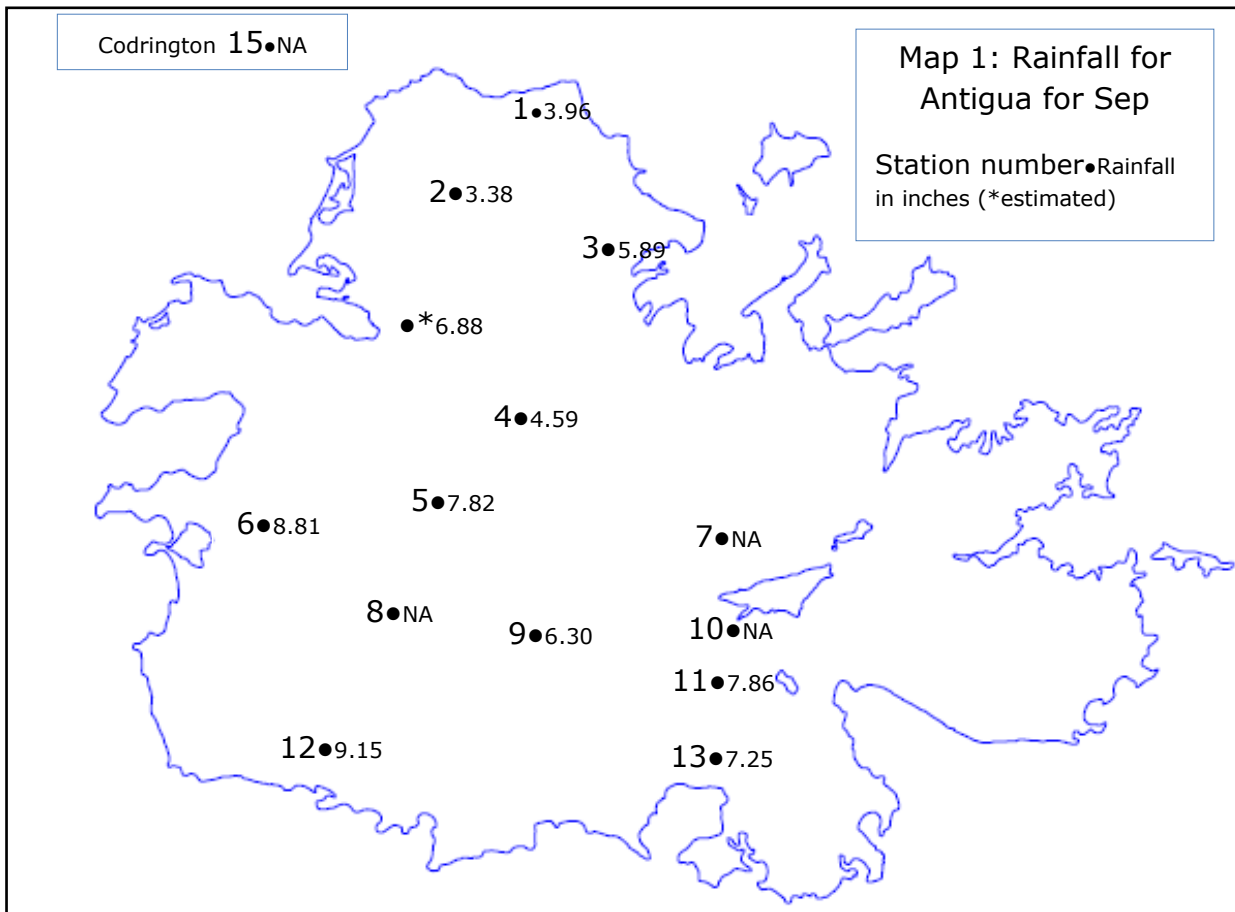
Antigua and Barbuda was threatened by three tropical cyclones during September. The first of the three was Hurricane Katia; however, it eventually passed over 300 miles northeast of Antigua and Barbuda on September 3. The second was Tropical Storm, Maria, which approached the islands on September 9. However, when it got close, it was severely hampered by strong upper level wind shear which eventually weakened the storm to nearly a tropical depression on September 10. The shear eased a bit and Maria regained 50 mph winds as it moved out of the area on September 11. The last tropical cyclone for the month, Tropical Storm Ophelia, also encountered strong upper level wind shear, to the extent that it actually dissipated on 25 September in the area. However, two days later, on September 27, the remnants of Ophelia regenerated into a tropical storm just east of the islands and moved slowly north-northwest out of the area by September 30.

Above average rainfall was experienced for September with 174.2 mm (6.86 inches – island average); this was 121% of the normal total. At Coolidge, the number of rainy days/wet days of 16 was above normal with six heavy rainfall days ( $\geq 10$  mm). Tropical cyclones were responsible for over 65% of the total with rainfall from Katia, Maria and Ophelia.

The mean temperature at Coolidge for September of 27.5°C was below normal; the mean daily maximum and minimum temperatures of 30.6°C and 25.0°C respectively were near normal.

## WEATHER AND CLIMATE SUMMARY IN BRIEF FOR CAMI ISLANDS - SEPTEMBER 2011

Rainfall experienced in CAMI islands of the eastern Caribbean varied. Tobago and St. Lucia were generally near-normal; Grenada, St. Vincent and Barbados above normal; Trinidad normal to above normal; and Dominica normal to below normal. From west to east in Guyana conditions were normal to below normal. Further to the west, Jamaica was generally near-normal. In Belize the north and south of the country were above normal and the remainder near-normal.



Period	Rainfall (inches)			Description (1981 – 2010)	Rainfall Record – 1928 to 2011			
	Actual	Normal (1981 – 2010)	Anomaly (1981 – 2010)		Max	Year	Min	Year
1(Sep)	6.86	4.45	+ 1.91	Above normal	14.69	1995	0.99	1978
3(Jul – Sep)	24.78	14.06	+ 10.72	Well above normal	28.43	1995	6.17	1968
6(Apr – Sep)	39.84	24.24	+ 15.60	Well above normal	43.06	2010	10.19	1939
9(Jan – Sep)	46.08	31.17	+ 14.91	Well Above normal	50.44	1951	14.28	1939
12(Oct – Sep)	63.72	47.24	+ 16.48	Well above normal	67.74	1952	23.82	2001
24(Oct – Sep)	121.39	94.20	+ 27.19	Well above normal	133.44	1952	64.90	1966

Table 1: Rainfall (inches) over the past 24 months. The rainfall for September was the second highest since 2000. The rainfall for July to September is the fifth highest on record.

TEMPERATURE SUMMARY FOR ANTIGUA AND BARBUDA – SEP 2011									
Station	Mean			Maximum			Minimum		
	Temp(°C)	Rank (Total)	Anomaly (°C)	Temp(°C)	Rank (Total)	Anomaly (°C)	Temp(°C)	Rank (Total)	Anomaly (°C)
Coolidge	27.5	32(41)	-0.6	32.2	19(41)	-0.3	22.4	19(42)	+0.2
Jolly Hill	27.8	-	-	33.3	-	-	22.7	-	-

Table 1: Temperature Summary for Antigua and Barbuda – Sep 2011. Temperatures are ranked from the highest to the lowest.

## WEATHER AND CLIMATE OUTLOOKS FOR ANTIGUA AND BARBUDA

### MONTHLY WEATHER OUTLOOK - OCTOBER

#### Rainfall

Near normal rainfall is most likely with **4.88 to 7.17 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

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

- **15%** chance of above normal temperature;
- **45%** chance of near normal temperature and
- **40%** 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

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

#### Temperature

Near normal temperature is most likely with **25.8 and 26.2°C**. Probabilistically, there is a

- **25%** chance of above normal temperature;
- **55%** chance of near normal temperature and
- **20%** chance of below normal temperature.

Based on the outlook for the rest of the year, reasonably favourable weather conditions will prevail for farming with near normal rainfall and temperature anticipated most of Antigua and Barbuda. Farmers should pay

attention to the 7-Day Forecast when planning specific activities.

### NATIONAL AGRICULTURAL SUMMARY

The above normal rainfall which started in April of this year and continued through September has resulted in significant reduction in agricultural products. Because of the prolonged abundant rainfall, many farmers have been unable to prepare their fields for planting. Fields have been persistently too wet for ploughing especially in low lying areas.

For those farmers who were able to plant, all had some amount of crop losses ranging from minor to major. The excess rainfall impacted crops at various stages. Crops were lost because of soil erosion and root rot. The high moisture levels also resulted in above normal levels of bacteria, fungi and weeds attacking crops, which also resulted in crop losses. In one case, a farmer lost four acres of carrots because of the excess rainfall. There were other losses including butternut squash, pumpkins, melons cucumbers and others from the cucurbits family of crops.

The low productions on farms have caused shortages and scarcities of a number of crops such as those mentioned above along with cabbages, egg plants, tomatoes, sweet peppers, season peppers and onions. Naturally, imports are up in an effort to makeup the shortfalls.

The low agricultural productions could also be attributed to the active hurricane season, to some extent, in that, some farmers did not attempt to plant much on account of the high potential of a storm impacting the islands and wiping out their investments.

## International Weather and Crop Summary

COUNTRY CITY	TEMPERATURE ( C )						PRECIPITATION (MM)	
	AVG MAX	AVG MIN	HI MAX	LO MIN	AVG	DPART F/NRM	TOTAL	DPART F/NRM
BAHAMA NASSAU	33	25	35	23	29	1.4	331	171
CANADA TORONTO	22	13	31	6	18	2.4	85	8
MONTREAL	22	13	30	6	18	3.1	110	20
WINNIPEG	21	7	31	-4	14	1.8	69	19
CALGARY	22	7	30	0	14	3.4	11	-33
EDMONTON	22	7	33	1	15	3.2	16	-25
VANCOUVER	20	12	25	6	16	1.8	70	17
CHINA BEIJING	25	16	29	10	21	0.3	41	-6
CUBA HAVANA	32	22	33	20	27	0.5	163	18
FRANCE PARIS/ORLY	23	13	31	7	18	1.8	36	-18
GERMAN HAMBURG	20	12	27	7	16	2.1	42	-27
BERLIN	21	12	29	7	17	2.3	57	12
KENYA NAIROBI	26	14	30	11	20	1.4	28	1
MEXICO GUADALAJARA	27	16	29	10	22	1.0	74	-86
NORWAY OSLO	16	8	25	2	12	2.9	160	71
P RICO SAN JUAN	31	25	36	23	28	0.2	152	10
RUSSIA ST.PETERSBURG	16	11	21	6	13	2.4	117	51
SPAIN MADRID	30	13	35	8	22	1.1	1	-22
VENEZU CARACAS	32	26	34	23	29	1.2	32	-15

**EUROPE:** Unseasonable warmth and dryness further reduced soil moisture for winter wheat planting in the Balkans.

**MIDDLE EAST:** Showers provided soil moisture for winter grain planting in southeastern Turkey.

**SOUTH ASIA:** The early withdrawal of the monsoon from some areas reduced moisture supplies for late-developing cotton.

**EAST ASIA:** Wet weather in China slowed harvesting and raised further concerns over cotton yields in the east.

**SOUTHEAST ASIA:** Typhoon Nesat caused extensive damage to agriculture in the Philippines, while Typhoon Nalgae was threatening the same areas at week's end.

**AUSTRALIA:** Wet weather benefited immature winter grains and oilseeds and further increased moisture supplies in advance of summer crop planting in most major production areas.

**ARGENTINA:** Scattered showers brought some relief from dryness to the southern winter grain belt.

**BRAZIL:** Seasonal rains intensified over Mato Grosso, encouraging soybean planting.

**MEXICO:** Warmth and dryness continued in some southern corn areas, but showers increased in coastal farming areas and over northern watersheds.

**CANADIAN PRAIRIES:** Warm, mostly dry weather hastened completion of spring grain and oilseed harvesting.

**EASTERN CANADA:** Warm, showery weather kept topsoils moist for winter wheat germination but slowed seasonal fieldwork.

## 2011 Small Grain Summary

**All wheat** production totaled 2.01 billion bushels in 2011, down 9 percent from 2010. Grain area totalled 45.7 million acres, down 4 percent from the previous year. The U.S. yield is 43.9 bushels per acre, down 2.4 bushels from the previous year's record high but still ranks as the fifth-highest yield on record. The levels of production and changes from 2010 by type are: winter wheat, 1.49 billion bushels, up 1 percent; other spring wheat, 462 million bushels, down 25 percent; Durum wheat, 51.9 million bushels, down 51 percent.

**Oat** production is estimated at a record-low 54.0 million bushels, down 33 percent from 2010. Yield is estimated at 57.5 bushels per acre, down 6.8 bushels from the previous year. Harvested area, at 940 thousand acres, is 26 percent below last year. This is the smallest acreage harvested for grain on record, surpassing the previous record low set in 2010.

**Barley** production is estimated at 155 million bushels, down 14 percent from 2010, and the lowest since 1936. Average yield per acre, at 69.2 bushels, is down 3.9 bushels from the previous year. Producers seeded 2.56 million acres in 2011, down 11 percent from last year. This is the lowest planted acreage on record. Harvested area, at 2.24 million acres, is down 9 percent from 2010, and the lowest level since 1881.

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### Acknowledgements

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