MONTHLY AGRO-METEOROLOGICAL BULLETIN

Vol. 5 Issue 6 **December 2016**

OVERVIEW OF CONDITIONS FOR DECEMBER

Rainfall for December across Dominica ranged from below normal along parts of the eastern coast to above normal along the central and western areas. The Atlantic High Pressure System dominated the weather conditions resulting in frequent passing shower activity and gusty winds.

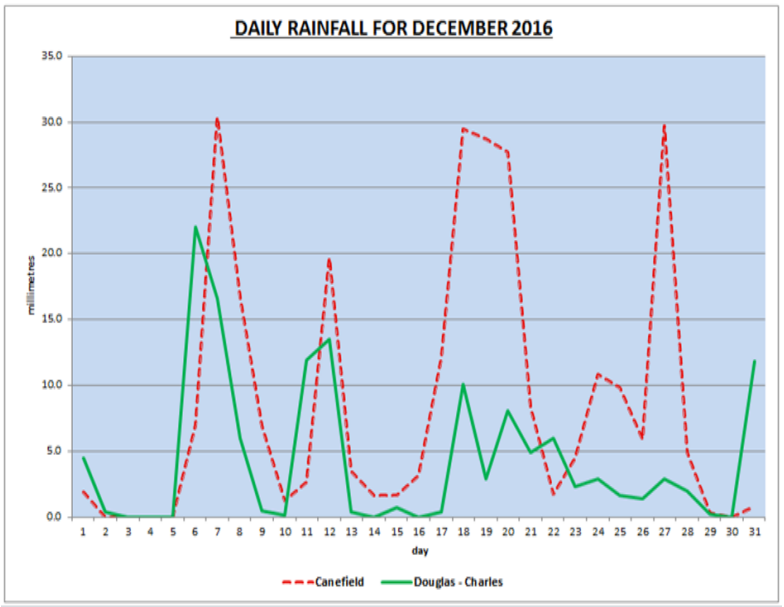


Figure 1 Daily rainfall at Canefield and Douglas-Charles Airports

Parameter (DECEMBER)	Canefield Airport	Douglas-Charles Airport
Rainfall Total Normal Wettest day	270.9mm (above normal) 76.7 to 113.6mm 7th (30.4mm)	134.1mm (below normal) 140.7 to 209.6mm 6th (22.0mm)
Wet Days (≥1.0mm)	24 (above normal)	18 (normal)
Temperature 30 year average	27.3°C 26.9°C	27.2°C 26.6°C
Maximum Tempera-ture	33.0°C (2nd, 3rd)	30.7°C (24th)
Minimum Temperature	20.8°C (31st)	20.5°C (31st)
Relative Humidity	69%	76%
Maximum wind gust	52km/h(18th,27th)	65km/h (17th,18th)
Average daily sunshine hours Normal	-	6hrs 36mins 6hrs 24mins

Table 1 December weather parameters

SUMMARY OF 2016

DOUGLAS-CHARLES AIRPORT

Rainfall

- **2592.9mm (normal)**
- **Wettest month (October -370.4mm)**
- **Driest month (February -102.3mm)**
- **Wettest day (May 11th –110.6mm)**

Temperature

- **27.7°C (above normal)**
- **Hottest month (August– 29.2°C)**
- **Coolest month (January- 26.1°C)**
- **Highest temperature (October 9th -32.4°C)**
- **Lowest temperature (February 5th-18.7°C)**

CANEFIELD AIRPORT

Rainfall

- **1956.9mm (above normal)**
- **Wettest month (November– 312.0mm)**
- **Driest month (April-30.2mm)**
- **Wettest day (September 28th – 98.6mm)(Tropical Storm Matthew)**

Temperature

- **28.2°C (normal)**
- **Hottest month (August- 29.5°C)**
- **Coolest month (January 26.5°C)**
- **Highest temperature (October 12th-35.5°C)**
- **Lowest temperature (January 11th-19.7°C)**

SUMMARY OF 2016

The year 2016 was filled with mixed weather patterns that had significant impacts on the agricultural sector. The seasonal forecast issued during the year for normal to above normal rainfall conditions were observed by those in the farming community. Vegetable production was severely affected by the excessive water and strong winds. Root crop production on the other hand saw different results as production of these crops were high. Tree and fruit crop production had an average production level. The recovery efforts from Tropical Storm Erika can be observed on many farmers holdings. However, in 2016 the agricultural sector was again negatively impacted by Tropical Storm Mathew and other weather events.

Flooding on the west coast as a result of a trough system.

SUMMARY OF DECEMBER

⇒ Continuous rainfall during the month resulted in waterlogged soils. Soil erosion was reported on steep sloping lands. Crops planted in heavy clay soils faced water stress by an overabundance of water in the soil. Most crops were well supplied with all their water demands. Rain water harvesting and storage containers on farms were filled to capacity.

⇒ This wet conditions experienced during the month impacted negatively on vegetable production. Farmers who tried to establish their vegetable crops experienced severe losses as most seedlings were not able to withstand the conditions. In general vegetable production was relatively low with cabbage, spinach and culinary herbs having average production.

⇒ Root and tree crop farmers continued establishments. Dasheen farmers took advantage of the rainy conditions as these conditions are favourable. Root crops especially dasheen, citrus, sorrel, plantain and banana crops were the main harvest for the period.

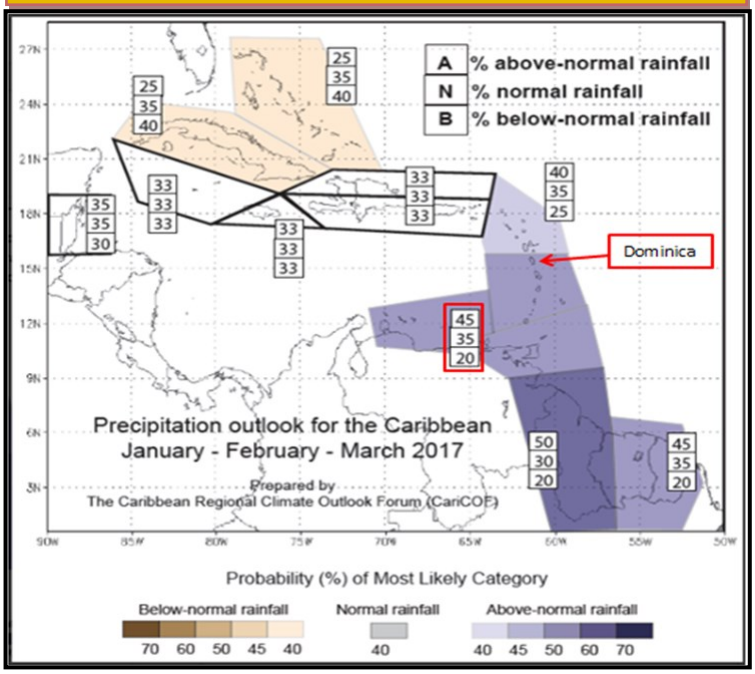
Sorrel plant

⇒ Livestock farmers reported an increase in internal parasite, worms and ticks. De-worming practices and tick control measures were enforced during the month. Livestock farmers reported minimal loss of livestock. Small ruminants surveillance and monitoring is ongoing.

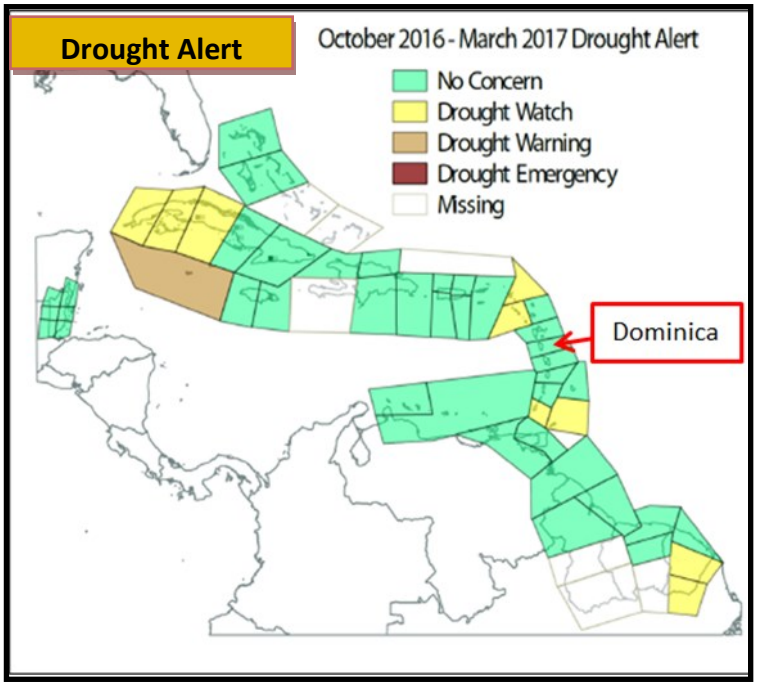
⇒ The weather conditions experienced were conducive for pests and disease proliferation. Surveillance by Plant Protection Officers were conducted. The Black Sigatoka Program experienced some challenges with activities such as scheduled spraying on farms that were planned for the period.

Black Sigatoka Disease infected leaves

Rainfall Outlook



Drought Alert



Forecast:

⇒ Above to normal rainfall totals can be expected for the season January to March 2017.

⇒ There is a 45% chance for above normal rainfall; 35% chance normal and a 20% chance for below normal.

⇒ Little change from the usual amount of wet days is expected. The forecast range is around 26 to 63 days, with expected 7-day wet spells to range from 0 to 3.

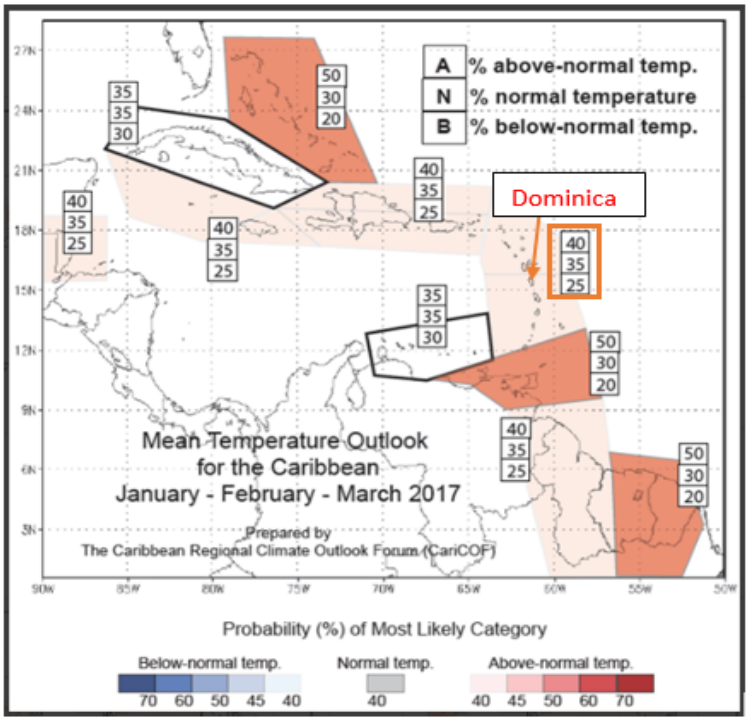
⇒ The chances for 3-day extreme wet spells are low.

⇒ There are no drought concerns for Dominica for the season.

⇒ Disruptions of outdoor activities by rainfall will become fewer as the months progress.

⇒ Depletion of large reservoirs during the dry season would likely be slower than in 2015.

Temperature Outlook



Temperatures across the Caribbean are forecast to rise but generally continue to be comfortable until April, with the chance of heat waves appearing in May and June for many.

(Maximum temperature normal range: 28-30°C)
(Minimum temperature normal range: 21-22°C)

Probability for: Maximum/ day-time temperature, Minimum/ night-time temperature and Average temperature is 40% chance of above normal; 35% chance normal; 25% chance of below normal.

CLIMATE SUMMARY FOR JANUARY

Parameter	Canefield Airport	Douglas-Charles Airport
Rainfall	81.6 -138.2mm	97.0 – 153.9mm
-highest total	228.2mm (2011)	249.0mm (1998)
-lowest total	31.3mm (2001)	68.6mm (1989)
Temperature	26.4°C	26.1°C
-maximum	32.0°C (2005)	31.8°C (1987)
-minimum	18.2°C (2008)	17.1°C (1988)
Chance of 5 day dry spell	71%	39%
Chance of 10 day dry spell	36%	3%

Table 2 climate summary for January

FARMER'S OUTLOOK

Based on the forecast for above to normal rainfall amounts:

- Farmers must remain vigilant in the fight of pest and disease problems.
- Water management on farms is also critical. This includes fresh and waste water management and must be factored in your farm management techniques.
- The relationship between the available water in the soil and the water demand of the crop must be understood for making decisions regarding the irrigation needs of the farm.
- Farmers must also pay attention to their land management. Avoid leaving excessive amount of soils bare and exposed to the factors of the weather. The top soil which is the most fertile part of the soil can easily be eroded by excessive water or strong wind.
- Crop planting schedule is important to meet the market demands and to have a consistent supply of quality products on the market.
- Producers need to schedule their planting dates with favourable weather conditions.
- Researchers, technicians and extension officers should incorporate weather information in their work plans and programs as most of the activities undertaken within the farming community are directly link to weather.
- Paying close attention to the weather and climate can save or help a farmer with his/her investment
- The meteorological service has and will continue to provide daily, monthly, quarterly and six month weather and climate forecast and can be used as an early warning system.
- Farmers are encouraged to provide feedback and suggestions for the continued improvement of this bulletin. The Division of Agriculture would like to improve the reading experience of the bulletin and provide information for farmers that will be useful and meaningful.

MOON PHASES

FQ:05th **FM:12th** **LQ:19th** **NM:28th**

Agromet bulletins from across the region can be accessed via http://rcc.cimh.edu.bb/climate-bulletins/agriculture/

This bulletin is prepared by the Dominica Meteorological Service with support from the Ministry of Agriculture. Feedback on this bulletin should be forwarded to metoffice@cwdom.dm or aictudoa@gmail.com . Tele: 767 445 7878, 767 449 1990. Website: www.weather.gov.dm Hotline: 447 5555