

CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



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A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

KEY MESSAGES

Short-term drought likely to evolve in the Cayman Islands and west-central Belize by end of January 2020. **Long-term drought of immediate concern** for most territories especially north-western Belize by end of November 2019. Interest should pay attention to water supplies following the concluding below normal wet season.

Areas in long term drought (by end of November) may experience **significantly reduced water levels** in large reservoirs, large rivers and groundwater during the upcoming dry season. Thus water rationing may be (or continue to be) of necessity in some territories.

Flooding and flash flooding still remains a concern.

SEPTEMBER IN REVIEW

The islands of the eastern Caribbean experienced mixed conditions throughout the month of September. Trinidad, Antigua and St. Kitts were predominantly normal with some slightly wet areas; Tobago moderately wet; Grenada moderate to very wet from north to south; Barbados, St. Maarten, Anguilla and St. Croix slight to moderately dry; St. Vincent moderately dry; St. Lucia and Dominica normal to slightly dry; Martinique was normal to severely dry from south to north; Guadeloupe from moderately wet in the west to extremely dry in the east; and St. Thomas normal. Curacao was predominantly normal. In the Guiana's, conditions ranged from exceptionally wet in south-western Suriname to exceptionally dry at the northern Suriname/French Guiana border, with portions of north central Guyana being very wet and northern French Guiana extremely wet.

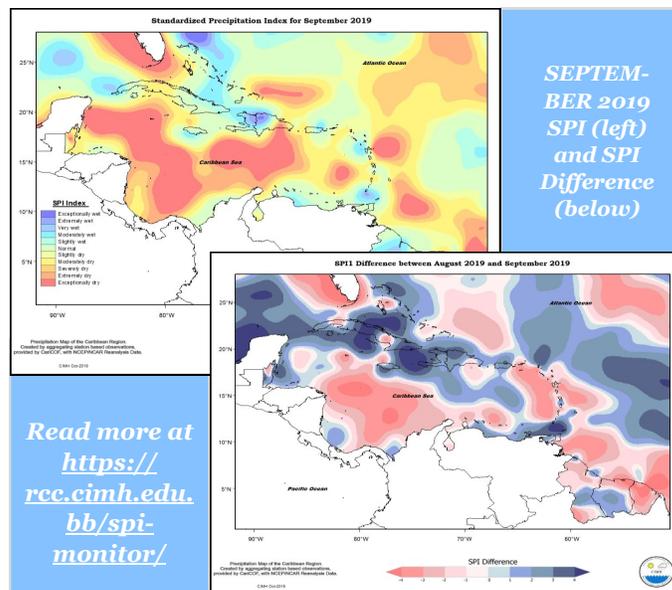
Puerto Rico ranged from moderately wet in the east to moderately dry in the west. Conditions in Hispaniola ranged from normal to exceptionally wet from south to north, with the exception of the eastern central areas of the Dominican Republic which were slight to exceptionally dry. Jamaica was mostly normal with the exception of a small area in the extreme North West which was slight to moderately dry, and in the south that was slight to moderately wet. Grand Cayman was exceptionally dry. In Cuba, western and eastern areas were normal to moderately wet with west central areas being slight to moderately dry, while northern Bahamas ranged from severely dry to severely wet.

ABOUT CariSAM

The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises, and more. Visit us at: www.carisam.cimh.edu.bb

Belize ranged from exceptionally dry in central areas to normal in the west and to moderately dry in the north and south.

The month of September yielded less rainfall than the month of August for much of the Eastern Caribbean and the Guianas.



AGRI-NEWS

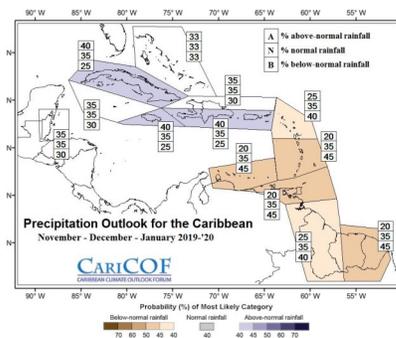
Belize: Drought brings strange citrus fruit. Specifically, the oranges used to make juice and other products are literally not growing... Read more <https://www.breakingbelizenews.com/2019/09/24/drought-brings-strange-citrus-fruit/>

Jamaica: Fifty farmers from Cascade in St. Ann are benefiting from improved access to irrigation, through a \$29-million community-based agricultural pilot project. Read more <https://jis.gov.jm/farmers-in-cascade-st-ann-benefit-from-irrigation-project/>

Barbados: Agricultural rebranding could lead to Caribbean food security. Read more <https://www.forbes.com/sites/daphneewingchow/2019/10/29/agricultural-rebranding-could-lead-to-caribbean-food-security/#4ad9ce11231d>

REGIONAL OUTLOOKS

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEAT (NOVEMBER 2019–JANUARY 2020)

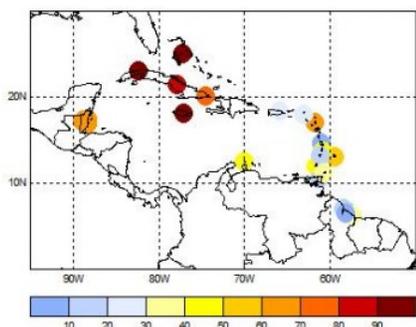


As the region enters into its dry season, decreasing surface wetness makes environmental conditions less conducive to moisture related pests, especially in the ABC Islands, the Guianas and the Lesser Antilles.

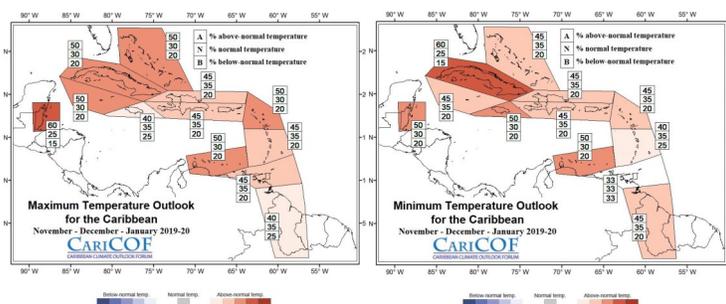
However, flash flood potential remains a concern through the month of December in the event of very wet spells.

The occurrence of at least three 7-day dry spells increases especially across Jamaica, Cuba and the northern portion of The Bahamas.

Probability of at least THREE 7-day dry spells Nov–Jan



Day (maximum) and night (minimum) time temperatures even though they could be warmer than usual, would be comfortable for this season. The chance of the occurrence of heat wave remain favourable across the Guianas for October.



DROUGHT

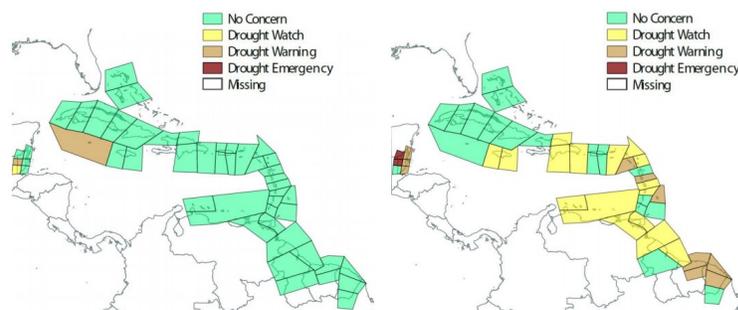
At the end of September 2019, severe (or worse) shorter term drought has developed in Barbados, much of Belize, eastern Hispaniola, St. Vincent, and Trinidad. Severe (or worse) long term drought has developed in Aruba, Barbados, Cayman, eastern Cuba, parts of French Guiana, much of Hispaniola, Martinique, western Puerto Rico, St. Barth, St. Thomas, and Trinidad.

By the end of January 2020, shorter term drought is likely to be evolving in The Cayman Islands and west-central Belize. Shorter term drought might possibly continue in southwest Belize.

By the end of November, long term drought is of immediate concern in north-western Belize. Long term drought may be evolving in Barbados, eastern Belize, Dominica, French Guiana, Saint Kitts, and Suriname.

Long term drought might possibly develop or continue in the ABC islands, Antigua, Dominican Republic, Jamaica, Martinique, northern Guyana, Saint Lucia, Sint Maarten/St-Martin, Trinidad, US Virgin Islands.

Territories may experience significantly reduced water levels in large reservoirs, large rivers and groundwater during the upcoming dry season. Thus water rationing may be (or continue to be) of necessity in some territories.



Short term drought alert levels by the end of January 2020 (updated October 2019 – covering August to January 2019)

Long term drought alert levels by the end of November 2019 (updated October 2019 – covering December 2018 to November 2019)

Visit <http://rcc.cimh.edu.bb/climate-outlooks/> to access the latest climate outlooks.

CLIMATE-SMART ADVISORIES

- ◆ With decreasing rainfall totals after a drier than usual wet season for some territories, farmers may need alternate water sources for on-farm activities. Continue to carry out measures to conserve water, especially in areas where water reservoirs may be severely impacted. Water conservation and management techniques (e.g. mulching and drip irrigation) should be employed where necessary.
- ◆ In preparation for planting, farmers should consider planting in areas where limited water resources would satisfactorily irrigate.
- ◆ Irrigate in the early morning preferably as there is less chance of wind and lower evaporation rates.
- ◆ To minimize the effects of flash flooding farmers are advised to maintain drains around crop stands and/or plant crops on raised beds; house animals on high ground and/or on raised pens; and store fertilizer away from moisture and water sources.
- ◆ Agricultural pest and diseases may increase after excess periods of precipitation. Monitor and employ recommended treatment as necessary.

Please also take into consideration your local weather and climate advisories.

Disclaimer

The information contained herein is provided with the understanding that the CARDI, and the CIMH make no warranties, either expressed or implied concerning the accuracy, completeness, reliability or suitability of said information. This bulletin provides a broad overview of climate conditions up to 6 months in advance. It is recommended that stakeholders should use this information in combination with nearer term weather forecasts to guide operational decision making. The bulletin may be freely used by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material.

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