

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

Increased rainfall amounts are expected in The Bahamas, the Cayman Islands, Cuba and the Guianas with the transition into the Wet Season. Moreover, the onset of the wet season may be delayed by up to one month in the other islands and in Belize.

Moderate to high potential for flooding, flash floods and related hazards due to recurrent very wet spells and extreme wet spells, particularly in the Guianas and the western Caribbean (in the event of extreme wet spells).

Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across Antigua, southwest Belize and St. Kitts, by the end of May 2021.

Dry spells, though decreasing in frequency, may spark heat-waves throughout Belize and the Caribbean Islands.

MARCH IN REVIEW

Mixed conditions prevailed throughout the islands of the eastern Caribbean during the month of March. Trinidad exceptional to slightly wet from southwest to northeast; Tobago slight to very wet; Grenada very to moderately wet; Barbados normal to moderately dry; St Vincent, Saint Lucia, St Kitts and St Thomas normal; Martinique and Anguilla normal to slightly wet; Dominica slight to moderately wet; Guadeloupe moderately wet to moderately dry; Antigua and St Maarten normal to slightly dry and St Croix moderately dry. In the Guianas, conditions ranged from normal in northern areas of Guyana Suriname and French Guiana to exceptionally wet on the central border of Guyana/Suriname. Aruba was moderately wet.

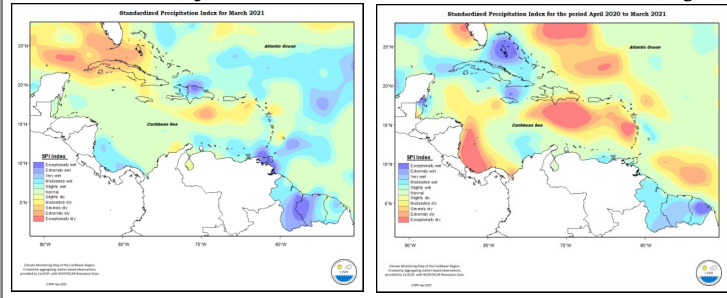
Puerto Rico was normal. Hispaniola ranged from normal in southern areas to exceptionally wet in north-western Dominican Republic. Jamaica ranged from normal in western and south-western areas to slightly dry in north western and eastern areas. Grand Cayman was normal. Cuba ranged from extremely dry in the west to normal in the east. Northern Bahamas was normal to extremely dry and Belize was predominantly normal with slightly wet conditions in central areas.

ABOUT CarISAM

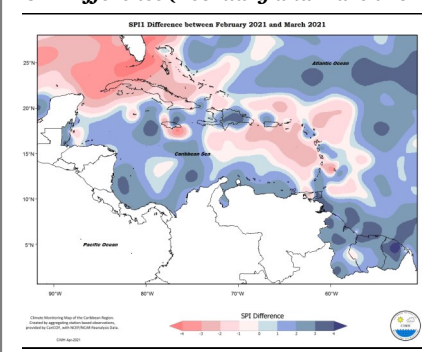
The Caribbean Society for Agricultural Meteorology (CarISAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises,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

For the 12-month period rainfall was above normal in the northwestern section of The Bahamas and Cuba, northern Belize, Jamaica and the Guianas.

MAR 2021 SPI (left) and 12-month SPI APR 2020–MAR 2021 (right)



SPI Difference (February and March 2021)



Mixed moisture differences were observed between the month of March and February with predominantly higher moisture levels across the Guianas, Trinidad and Hispaniola in March. However, March was markedly drier across Cuba and The Bahamas.

Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

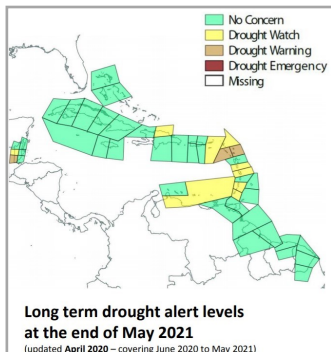
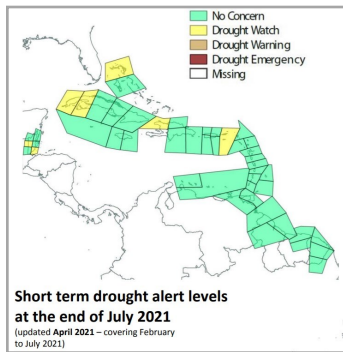
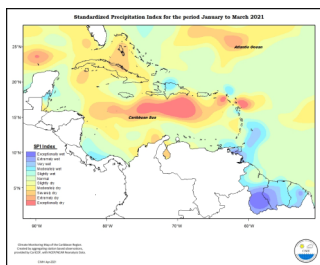
AGRI-NEWS

St. Vincent: St Vincent's Deputy PM says north east agriculture sector destroyed. Read more <https://www.nationnews.com/2021/04/12/st-vincents-deputy-pm-says-north-east-agriculture-sector-destroyed/>

REGIONAL OUTLOOKS

DROUGHT

As at the end of March 2021, moderate (or worse) short term drought has developed in most parts of The Bahamas, southwest Belize, Grand Cayman, Cuba, southeastern and southwestern Hispaniola, the Leeward Islands and St. Vincent. Moderate (or worse) long term drought has developed in southwest Belize, along the southern coast of Hispaniola, St. Croix, St. Kitts and the west coasts of the Windward Islands.



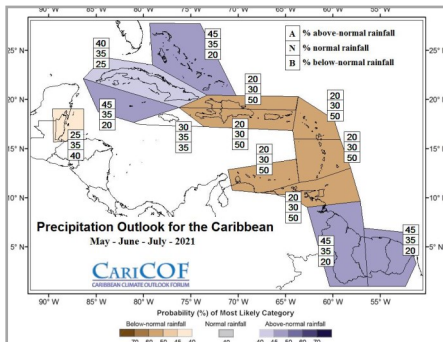
By the end of July 2021, there is some chance for impacts from short-term drought along the northern Bahamas, southeast and west-central Belize, Western Cuba, and the USVI. **This situation should continue to be monitored.**

However, long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across Antigua, southwest Belize and St. Kitts, by the end of May 2021. This situation might possibly develop in parts of west-central Belize, Dominica, northern parts of the Dominican Republic, Grenada, Martinique, Sint Maarten/St-Martin and St. Vincent.

Interests across the region should continue to monitor their water status.

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (MAY–JULY 2021)

There is a favourable chance for rainfall totals (from May to July) to be above normal in The Bahamas, Cayman Islands, Cuba and the Guianas and in contrast below normal in the ABC Islands, Belize, Hispaniola, the Lesser Antilles and the US Caribbean Territories.



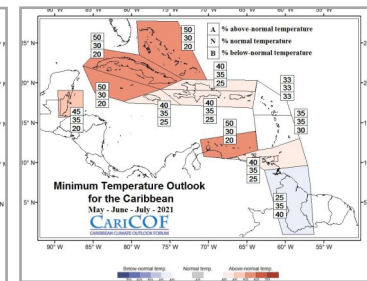
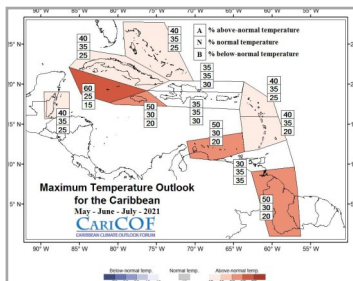
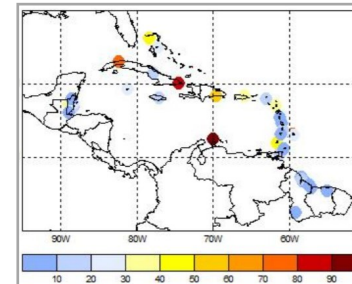
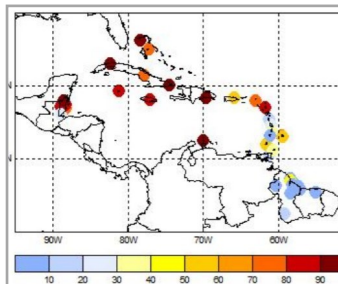
There is a moderate to high potential for long-term flooding, flash floods and related hazards from very wet and extreme wet spells particularly in the Guianas and the western Caribbean (from very wet spells).

Fewer wet spells than usual across the islands could retard recharge rates of large water reservoirs and soil moisture.

The occurrence of at least three 7-day dry spells is highly likely across the region with the exception of some territories of the Eastern Caribbean and the Guianas. The occurrence of at least one 15-day dry spell is highly likely across northwest and southeast Cuba and the ABC Islands.

Probability of at least THREE 7-day dry spells in AMJ

Probability of at least ONE 15-day dry spell in AMJ



Day-time (maximum) and night-time (minimum) temperatures during this first half of the Heat Season are likely to be at least as warm as usual in most areas, with the possible exception of Cuba, Hispaniola, the Leeward Islands and the US Caribbean Territories during the day and Guyana at night. Heat stress may appear and would peak during heatwaves.

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

CLIMATE-SMART ADVISORIES

With the possibility of flood producing rains, particularly in the Guianas and the western Caribbean:

- ◆ Maintain drains around crop beds and/or plant crops on raised beds; house animals on high ground and/or on raised pens; store fertilizer away from moisture and water sources

Consider on-farm drought management plans in the event of a likely occurrence of dry spells and short-term drought conditions (particularly Antigua, southwest Belize and St. Kitts). These may include:

- ◆ Identifying alternate water sources for on-farm activities; employing water management techniques such as irrigation scheduling and mulching; installing water-saving devices
- ◆ Selecting drought tolerant crops and varieties and planting them with careful thought of the availability of water resources

Pest and diseases may increase in extreme dry and wet conditions. Monitor and employ recommended treatment as necessary.

Be hurricane ready! Please also keep updated and 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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