

# 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

**Frequent wet days and wet spells and above-average tropical cyclone activity is possible across the Caribbean Islands and Belize resulting in frequent disruptions of outdoor activities and rising water levels in soils, rivers and reservoirs.**

**High potential for flooding, flash floods and cascading hazards across the Caribbean Islands and Belize (in the coastal Guianas from late-November).**

**Heat stress will likely remain high due to high humidity and temperatures south and eastwards of Guadeloupe in October.**

**No concern for short-term drought across the region. However, long-term drought could likely present a challenge across The Bahamas.**

## AUGUST IN REVIEW

Mixed conditions prevailed throughout the islands of the eastern Caribbean during the month of August. Trinidad ranged from exceptionally wet in the west to normal in the east; Tobago ranged from very wet to severely dry; Grenada, Anguilla and St Croix normal; Barbados and St Thomas moderate to slightly wet; St Vincent extreme to very wet; Saint Lucia moderate to very wet; Martinique normal to extremely dry; Dominica predominantly normal with slightly dry conditions in the extreme south; Guadeloupe and St Maarten normal to moderately dry; Antigua normal to slightly dry and St Kitts slightly wet to normal. Conditions in the Guianas ranged from exceptionally wet on the northern Guyana/Suriname border to severely dry on the southern Suriname/French Guiana border. Aruba was very wet and Curacao moderately wet.

Puerto Rico ranged from extremely dry in central areas to moderately dry in the west and slightly dry in the east. Conditions in the Dominican Republic ranged from normal in central areas to very wet in the extreme west and east. Jamaica ranged from exceptionally wet in central areas to slightly wet in the west and moderately wet in the extreme northeast. Grand Cayman was extremely wet.

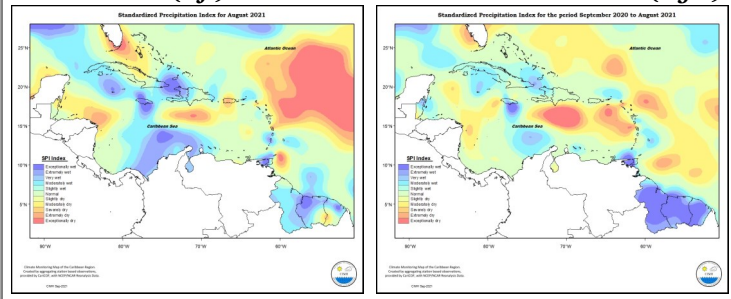
## ABOUT CarISAM

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](http://www.carisam.cimh.edu.bb)

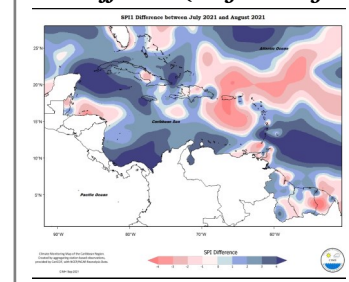
Cuba ranged from moderately dry in northern areas to moderately wet in the west and to exceptionally wet in the east. Northern Bahamas ranged from normal to severely dry and Belize was predominantly normal ranging to moderately dry in the north and slightly wet in the west.

A review of the 12-month period (September 2020 to August 2021), showed normal to above normal conditions for most of the region.

### AUG 2021 SPI (left) and 12-month SPI SEP 2020–AUG 2021 (right)



### SPI Difference (July and August)



Predominantly wetter conditions in August (as compared to July) were observed across most of the region with the exception of Puerto Rico, Virgin Islands, Grenada, most of Hispaniola, portions of Cuba, The Bahamas, Belize, Trinidad and Tobago and the Guianas.

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

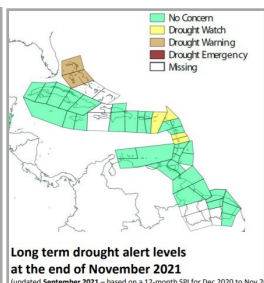
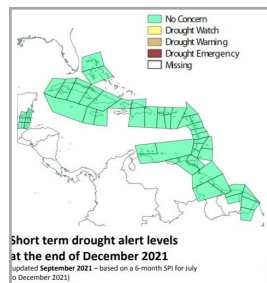
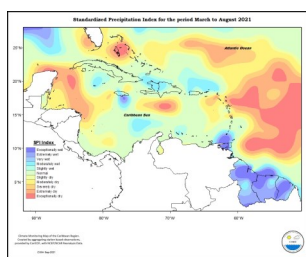
## AGRI-NEWS

**Grenada:** UNDP supports nature-based solutions for erosion control. Read more <https://www.nowgrenada.com/2021/09/undp-supports-nature-based-solutions-for-erosion-control/>

## REGIONAL OUTLOOKS

### DROUGHT

As at the end of August 2021, severe (or worse) short term drought has developed in the northwestern Bahamas, northwest Martinique and St. Barth's. Severe long term drought has developed in northwest Martinique, St. Barth's and St. Croix.



By the end of December 2021, there is no concern for impacts from short-term drought.

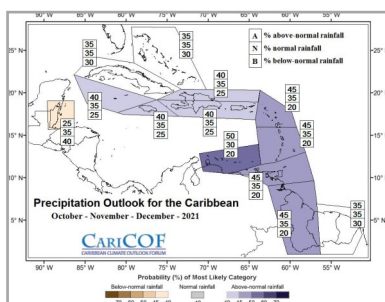
However, long-term drought that can impact large reservoirs, large

reservoirs, large rivers or groundwater would likely present a challenge in farming across The Bahamas and possibly develop or continue in southern Belize, Dominica, Martinique, St. Barth's, Sint Maarten/St. Martin, and the US Virgin Islands.

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

### RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (OCTOBER—DECEMBER 2021)

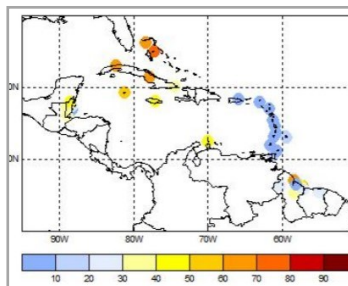
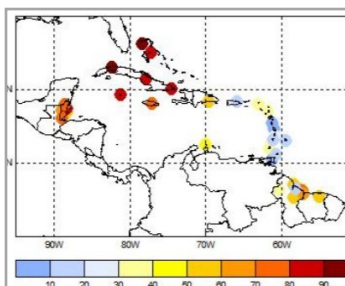
Rainfall totals (from October to December) could possibly be at least as high as usual across the Antilles (with the possible exception of Cuba) and Guyana, but the usual or less in Belize.



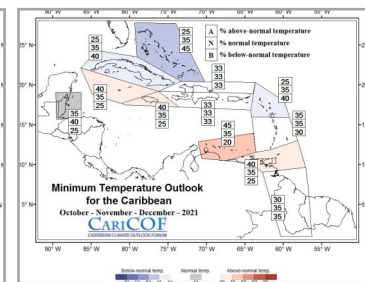
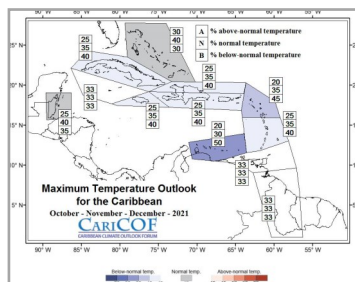
Flash flood, long-term flooding, land slide and widespread soil erosion potential remain a concern across Belize, the Islands and, from late-November, the coastal Guianas due to very wet spells and extreme wet spells.

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

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



The occurrence of at least three 7-day dry spells remain highly favourable across Cuba, Jamaica, northernmost Bahamas, as well as the Cayman Islands and Belize. At least one 15-day dry spell is favourable across Cuba, northernmost Bahamas and coastal Guyana.



Day-time (maximum) temperatures and night-time (minimum) temperatures are likely to be close to the usual or slightly lower in many areas, except for night-time temperatures in the ABC Islands, Cayman Islands, Jamaica and Trinidad & Tobago. In October, heat stress should peak in the coastal Guianas and still be high in Barbados and the Windward Islands during heatwaves.

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

### CLIMATE-SMART ADVISORIES

- ◆ **Continue to be hurricane prepared!**
- ◆ To enhance food security in the event of a tropical cyclone, farmers may want to consider planting or supplementing with more resilient crops (e.g. root crops)
- ◆ Provide shade and ample water for livestock especially in October during heatwaves across coastal Guianas, Barbados and the Windward Islands. Farmers should also pay attention to their health and protect from heat-stroke:
  - Consume lots of water
  - Wear appropriate clothing (i.e. long-sleeves, broad-rimmed hats)
  - Adjust times of field activities where necessary
- ◆ With the possibility of flood producing rains, particularly in Belize and the Caribbean Islands:
  - 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
- ◆ Pest and diseases may increase in extreme wet conditions. Monitor and employ recommended treatment as necessary.

*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.

### CONTACT US:

**Adrian Trotman**  
 Agro-meteorologist/ Chief of Applied Meteorology and Climatology, CIMH  
 Email: [atrotman@cimh.edu.bb](mailto:atrotman@cimh.edu.bb)

**Shontelle Stoute**  
 Technical Officer, CIMH  
 Email: [sstoute@cimh.edu.bb](mailto:ssoute@cimh.edu.bb)

**Kistian Flemming**  
 Climate Change Development Specialist, CARDI  
 Email: [kflemming@cardi.org](mailto:kflemming@cardi.org)