

# 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

**Floods including flash flood, landslide, rock-fall and soil erosion possible across Belize and the Caribbean Islands until December and, from late November, in the coastal Guianas.**

**Frequent, short dry spells are expected from Hispaniola westward, potentially impacting unprotected crop farming, especially in the case of preexisting drought.**

**Heat stress should quickly subside with the ending of November.**

**No concern for short-term drought across the region. However, long-term drought could likely present a challenge in parts of the Caribbean particularly across Southeast Belize and Dominica.**

## SEPTEMBER IN REVIEW

Conditions throughout the eastern Caribbean were predominantly normal to below normal during the month of September. Trinidad moderately dry to slightly wet southeast to northwest; Tobago, St Maarten and St Kitts slightly dry to normal; Grenada slight to moderately dry; Barbados extremely dry to exceptionally wet southeast to northwest; St Vincent and Dominica extremely dry to normal; Saint Lucia and Martinique normal to exceptionally dry; Guadeloupe severely dry to normal; Antigua and St Thomas normal; Anguilla normal to slightly wet and St Croix moderately dry. In the Guianas, conditions ranged from moderately dry in northwestern Guyana to exceptionally wet around the northern Suriname/French Guiana border and in Northeastern French Guiana. Aruba and Curacao were normal.

Puerto Rico was predominantly normal with slightly dry conditions in the extreme southwest and southeastern areas. Hispaniola was predominantly normal, ranging to exceptionally dry in the extreme southwest of Haiti and to severely dry in southeast Dominican Republic. Jamaica ranged from normal in central areas to moderately dry in western areas and to exceptionally dry in the east. Grand Cayman was exceptionally dry.

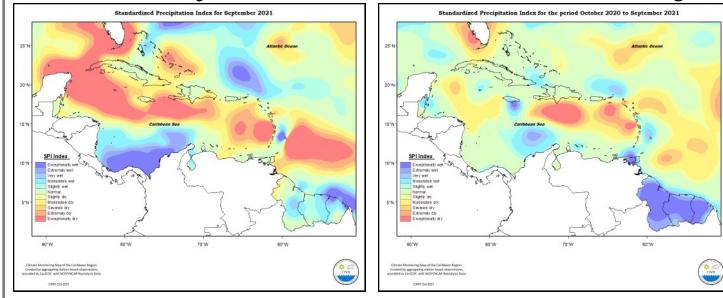
## ABOUT CARI SAM

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)

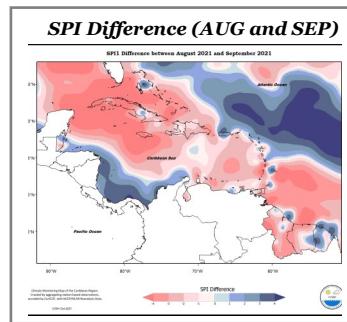
Cuba ranged from mostly normal in central areas to exceptionally dry in the west and to moderately dry in the east. Northern Bahamas ranged from very wet to exceptionally dry and Belize was predominantly normal ranging to moderately dry in the southeast and extreme north.

A review of the 12-month period (October 2020 to September 2021), showed mixed conditions across the region with exceptionally wet conditions across the Guianas.

**SEP 2021 SPI (left) and 12-month SPI OCT 2020–SEP 2021 (right)**



Predominantly drier conditions in September (as compared to August) were observed across most of the region.

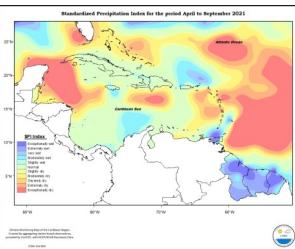


Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

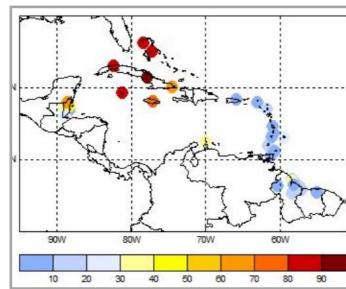
## REGIONAL OUTLOOKS

### DROUGHT

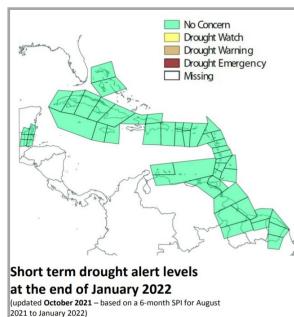
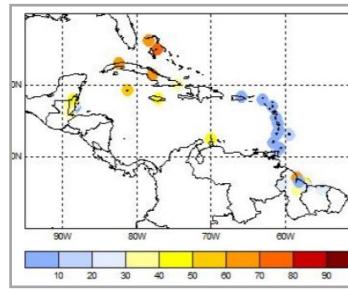
Severe (or worse) short term agricultural drought has developed in northwest-ern and southeastern portions of The Bahamas, northern Belize, westernmost Cuba, easternmost Guadeloupe, north-west Martinique and St. Barth's. Severe long term drought has developed in northwest Martinique, St. Barth's and St. Croix.



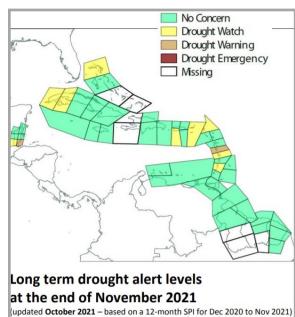
Probability of at least THREE 7-day dry spells in NDJ



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



Short term drought alert levels at the end of January 2022  
(updated October 2021 – based on a 6-month SPI for August 2021 to January 2022)



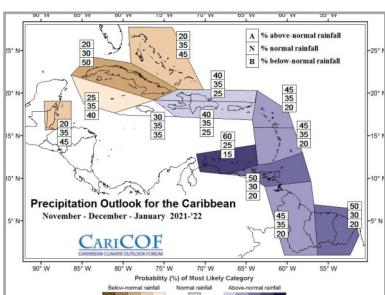
Long term drought alert levels at the end of November 2021  
(updated October 2021 – based on a 12-month SPI for Dec 2020 to Nov 2021)

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 rivers or groundwater would likely present a challenge in farming across Southeast Belize and Dominica and possibly develop or continue in northernmost Bahamas, southwest Belize, Western Cuba, Martinique, Sint Maarten/St- Martin, St. Vincent and the US Virgin Islands.

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

### RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (NOVEMBER 2021–JANUARY 2022)

Rainfall totals (from November through January) could possibly be at least as high as usual across the Antilles from Hispaniola east and southwards and in the Guianas, but the usual or less in the Bahamas, Belize, Cayman Is. and Cuba.



Flash flood, long-term flooding, land slide, rock fall and wide-spread 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 and extreme wet spells.

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

Day-time (maximum) temperatures and night-time (minimum) temperatures are likely to be close to the usual or slightly lower in many areas north of 16°N, but the usual or slightly higher south of 16°N. Heat stress, if still present in early-November, should rapidly subside. At higher elevations and in Belize, some cold nights are expected in December and January.

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)
- ◆ 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: [ssstoute@cimh.edu.bb](mailto:ssstoute@cimh.edu.bb)

#### Kistian Flemming

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