

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

A particularly wet season is expected until February in northern parts of the Guianas, with high potential for flooding and associated hazards.

More wet days and a few wet spells may slow water reservoir loss and reduce irrigation frequency necessary in the Guianas and the Lesser Antilles.

Impacts from short-term drought may be of a concern across most of Belize, western Cuba, Antigua and Barbuda and Guadeloupe.

Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across central and southern Belize, western Cuba, and US Virgin Islands.

Frequent dry spells are likely in areas west of Puerto Rico, particularly in the Bahamas, Cayman Islands and Cuba, and are likely to increase wildfire potential and increase irrigation frequency.

NOVEMBER IN REVIEW

Conditions throughout the eastern Caribbean were predominantly normal to below normal during the month of November. Trinidad ranged from slightly wet to exceptionally dry; Tobago exceptional to extremely dry; Grenada, St Vincent and Dominica moderately dry to normal; Barbados and Martinique slight to extremely dry; Saint Lucia severe to extremely dry; Guadeloupe moderate to extremely dry; Antigua extremely dry; St Kitts and St Thomas moderate to slightly dry; St Maarten normal; Anguilla normal to slightly wet and St Croix severe to moderately dry. In the Guianas, conditions ranged from moderately dry to exceptionally wet. Aruba and Curacao were normal to slightly dry.

Puerto Rico ranged from normal to extremely dry from west to east. Hispaniola ranged from moderately wet in the west to extremely dry in northern areas of the Dominican Republic. Jamaica ranged from slightly dry in the extreme west to extremely wet in the northwest and to severely dry in the extreme east.

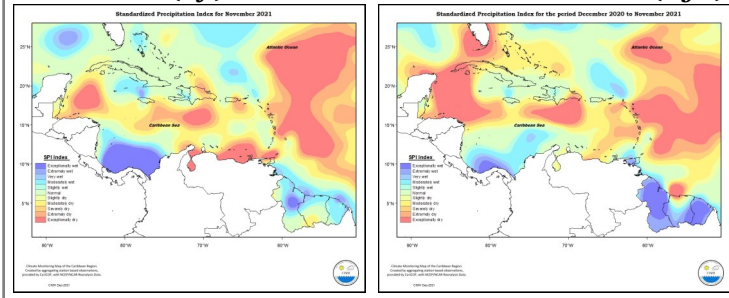
ABOUT CarISAM

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

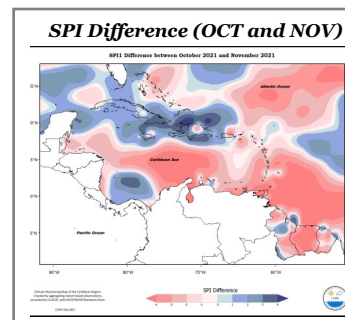
Grand Cayman was slight to moderately wet. Cuba was predominantly normal ranging to moderately dry in the extreme west. Northern Bahamas was normal to moderately wet and Belize ranged from severely dry in the southeast to slightly dry in central and northern areas and to normal in the east.

A review of the 12-month period (December 2020 to November 2021), showed predominantly normal to extremely dry conditions across most of the region with the exception of the Guianas.

NOV 2021 SPI (left) and 12-month SPI DEC 2020–NOV 2021 (right)



The month of November has been predominantly drier as compared to October, with the exception of Hispaniola, Cuba and much of Jamaica.

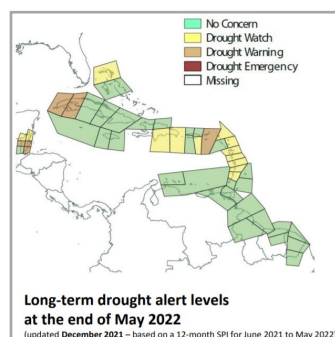
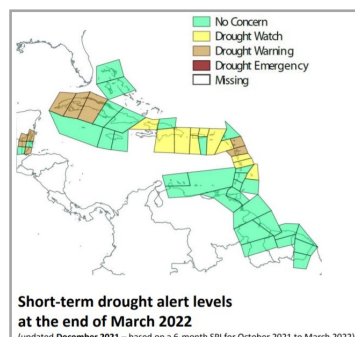
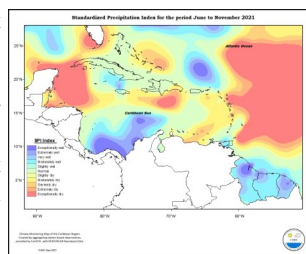


Read more at <https://rcc.cimh.edu.bb/spi-monitor/>

REGIONAL OUTLOOKS

DROUGHT

Moderate (or worse) short-term drought has developed in Aruba, southern Belize, western Cuba, eastern Hispaniola, southern Jamaica, and all portions of the Lesser Antilles with the exception of Trinidad. Moderate (or worse) long-term drought has developed in The Bahamas, south Belize, Western Cuba, Dominica, eastern Dominican Republic, throughout the Leeward Islands, in Martinique, St. Lucia, St. Vincent, and northern Suriname.

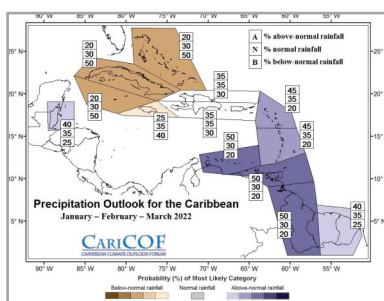


By the end of March 2022, impacts from short-term drought may be of a concern across most of Belize, western Cuba, Antigua and Barbuda and Guadeloupe and possibly across Barbados, Dominica, southern Dominican Republic northern Haiti, Martinique, Puerto Rico, USVI, and Saint Kitts. Long-term drought that can impact large reservoirs, large rivers or groundwater would likely present a challenge in farming across central and southern Belize, western Cuba, and US Virgin Islands and possibly across Antigua, the northern Bahamas, northern Belize, Dominica, southern Dominican Republic, Guadeloupe, Martinique, Saint Lucia, Saint Vincent, and Sint Martin by the end of May 2022.

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

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (JANUARY–MARCH 2022)

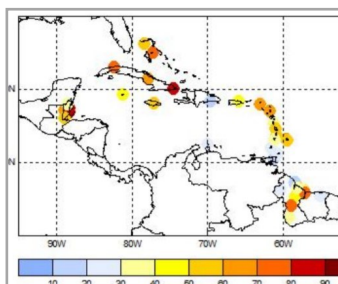
Rainfall totals (from January through March) could possibly be the usual or lower across Cuba, The Cayman Islands, Jamaica and The Bahamas. However, the rest of the region could be the usual or higher, with the exception of Hispaniola and Puerto Rico.



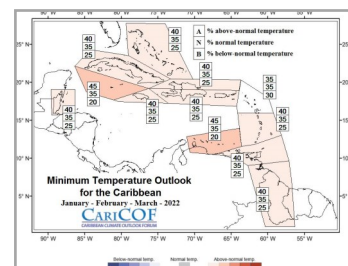
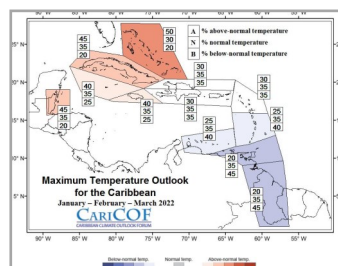
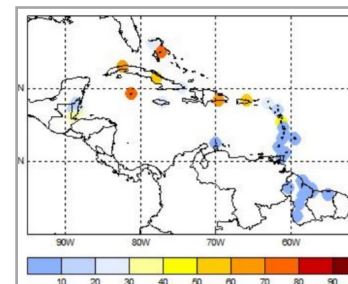
Flash flood and widespread soil erosion potential remain a concern across the coastal Guianas, due to extreme wet spells. Wild fire potential could slowly increase by the end of March 2022.

The occurrence of at least three 7-day dry spells and at least one 15-day dry spell are likely across the region, but less so in the Dominican Republic, Trinidad and portions of Guyana. The occurrence of at least one 15-day dry spell is also possible across the Cayman Islands, Cuba, north-western Bahamas, the Dominican Republic and Puerto Rico.

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



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



Day-time (maximum) temperatures and night-time (minimum) temperatures are likely to be comfortable despite the night-time being the usual or slightly warmer across the region. Some relatively cold nights are expected, particularly in The Bahamas, Belize and elsewhere at higher elevations. Cooler day-time temperatures are expected across the Guianas, Trinidad and Tobago, the ABC Islands and much of the eastern Caribbean.

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

CLIMATE-SMART ADVISORIES

Alternate sources of irrigation may be required for territories (The Bahamas, Cayman Islands and Cuba) being affected by drought and frequent dry spells.

Consider on-farm drought management plans in the event of a likely occurrence of dry spells and short-term drought conditions. These may include:

- ◆ Identifying alternate water sources for on-farm activities; employing water management techniques such as irrigation scheduling and mulching (in the event of dry spells); installing water-saving devices.
 - ◆ Selecting drought tolerant crops and varieties and planting them with careful thought of the availability of water resources.
- With the possibility of flood producing rains**, particularly in the Guianas:
- ◆ *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.*
 - ◆ Agricultural pests 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.

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