

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

The cool season features more comfortable temperatures and humidity. This period also marks the peak of the dry season in the Caribbean region, which may be even drier than usual for most.

An increase in short- and long-term drought concern -- especially in Belize, the Guianas and Puerto Rico, as well as an increase in the frequency of 7-day spells and wildfire potential towards March.

The chance of intense showers in central and southern parts of Belize, the Guianas and in mountainous areas of the Caribbean islands, keeps the potential for flooding, flash floods and cascading hazards moderate to high there through January.

NOVEMBER IN REVIEW

Normal to below normal conditions were seen throughout most of the islands of the eastern Caribbean during the month of November. Trinidad, Tobago, Grenada, Barbados, St Vincent and Saint Lucia normal; Martinique mostly slightly dry to normal; Dominica mostly normal to slightly dry; Guadeloupe moderate to exceptionally dry; Antigua extremely dry; St Kitts slight to moderately dry; St Maarten and Anguilla moderately dry; St Croix and St Thomas normal to slightly wet. In the Guianas, conditions ranged from exceptionally dry in northern Suriname to very wet on the northern coastline of French Guiana and to moderately wet in southwestern Guyana. Aruba was very wet and Curacao moderate to slightly wet.

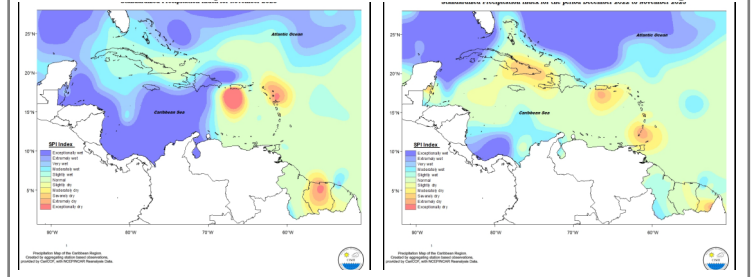
Puerto Rico ranged from exceptionally dry in the south to very wet in the extreme northwest. Hispaniola was predominantly wetter than usual, ranging from normal in northwestern areas to exceptionally wet in eastern areas. Jamaica ranged from exceptionally wet in the south to very wet in the northwest. Grand Cayman was moderately wet. Cuba ranged from very wet in the extreme west to normal in the east. Northern Bahamas ranged from moderate to extremely wet and Belize was exceptional to very wet.

ABOUT CarISAM

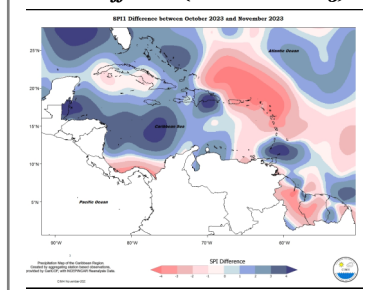
The Caribbean Society for Agricultural Meteorology (CarISAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises,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

Predominantly normal to severely dry conditions prevailed across the Caribbean Islands during the 12-month period (December 2022 to November 2023) with the exception of The Bahamas, which was normal to exceptionally wet.

NOV 2023 SPI (left) and 12-mth SPI DEC 2022 - NOV 2023 (right)



SPI Difference (Oct and Nov 2023)



Predominantly relatively wetter conditions were observed across the region in the month of November compared to October, with the exception of The Guianas and much of the Lesser Antilles.

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

AGRI-NEWS

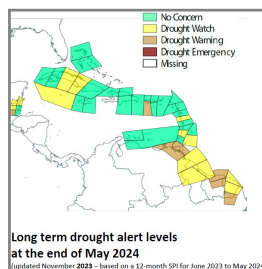
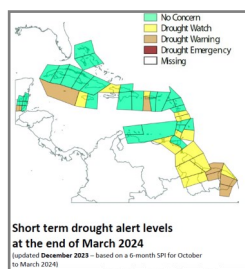
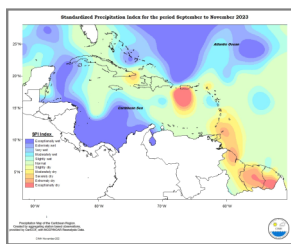
Guyana: Rice farmers and residents of Mahaicony River and surrounding areas in Region Five who are experiencing water woes will soon have an adequate supply of irrigation water as mechanisms will be implemented. Read more <https://agriculture.gov.gy/2023/12/16/mahaicony-rice-farmers-will-soon-benefit-from-access-to-irrigation-water/>

REGIONAL OUTLOOKS

DROUGHT

Moderate (or worse) short-term drought has developed in Barbados, southeasternmost Cuba, Grenada, most parts of the Guianas, Martinique, southern Puerto Rico, St-Barts, St. Martin, St. Vincent, Trinidad & Tobago. Moderate (or worse) long-term drought has developed in southern Barbados, parts of northern Belize, eastern Cuba, southeast French Guiana, Grenada, Martinique, southern Puerto Rico, St. Croix, St. Vincent, Trinidad & Tobago.

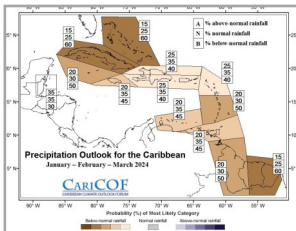
There is some concern over short-term drought that can impact small rivers, streams and ponds by the end of February across southwest Belize, Grand Cayman, interior French Guiana, southwest Puerto Rico, and northeast Suriname and possibly develop or continue in Dominica, coastal French Guiana, Grenada, Guyana, western Jamaica, Martinique, northwestern Puerto Rico, and Tobago. **Interests in these territories should monitor their water resources.**



There is some concern for long-term drought, that can impact large reservoirs, large rivers or groundwater, to present a challenge in farming by the end of

May 2024 across southwest Belize, southern French Guiana, southwest Puerto Rico, northern Suriname, and Trinidad and possibly develop or continue across western and northern Belize, Central Cuba, Dominica, most of French Guiana, coastal and northern interior of Guyana, St. Vincent, and Tobago. **Interests in these countries should monitor their water resources.**

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (JANUARY – MARCH 2024)

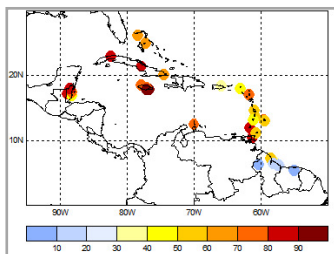
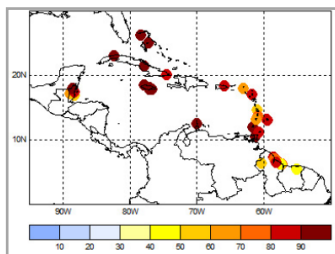


Rainfall totals from January through March are likely to be the usual or lower across the region.

High potential for flooding, flash floods and related hazards exist in coastal Guianas through February, due to very wet and extreme wet spells.

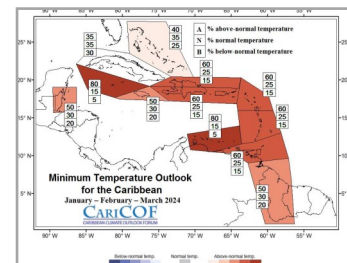
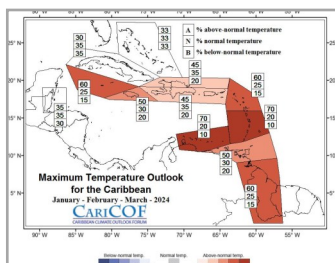
Probability of at least THREE 7-day dry spells in JFM

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



The occurrence of at least three 7-day dry spells is highly favourable across the region. The occurrence of at least one 15-day dry spell is also favourable across the region, with the exception of the Guianas.

Day-time (maximum) and night-time (minimum) temperatures are forecast to be higher than usual in many areas. Usually, no significant episodes of heat stress are expected during the core of the Caribbean Cool Season. However, given persistently higher than usual temperatures, heatwaves might well be recorded this March, notably with very low soil moisture content.



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

CLIMATE-SMART ADVISORIES

In the event of short-term drought (across some territories), implement drought management plans by employing water management practices to enhance conservation and efficient use of water, some of these may include:

- ◆ Irrigation scheduling (irrigating early mornings and late afternoons to reduce evaporation and transpiration rates)
- ◆ Applying mulch for moisture conservation in the soil.

Farmers in areas with significant rainfall deficits going into the dry season may want to make sure they have adequate irrigation for their fields at least for the first half of the season. If not, farmers may want to consider reducing their planting area.

In the event of dry spells:

- ◆ Ensure regular weeding to reduce competition and further stress to crops
- ◆ Schedule irrigation
- ◆ Utilize irrigation techniques to apply the right amount of water for the crop and to avoid runoff

In the event of flooding (across Coastal Guiana):

- ◆ Ensure that livestock are housed on high grounds; evacuate animals in low lying areas and pastures which are prone to flooding and erosion.
- ◆ Certain pest and diseases such as blossom end rot will increase during and after extreme wet conditions, implement appropriate disease and pest management practices.

Maintain proper records of inputs and the crop under cultivation and/or livestock being reared.

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

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

Kistian Flemming
Climate Change Development Specialist, CARDI
Email: kflemming@cardi.org