

CARIBBEAN AGRO-CLIMATIC BULLETIN OF THE CARISAM



AUGUST 2023 • VOLUME 7 • ISSUE 3

A joint bulletin of the Caribbean Agricultural Research and Development Institute (CARDI) and the Caribbean Institute for Meteorology and Hydrology (CIMH).

KEY MESSAGES

Short-term drought concern across French Guiana is a possibility by the end of October. However, long-term drought may affect Central Belize, Dominica, and southern French Guiana.

The potential for flooding, flash floods and cascading hazards will be high due to copious rains (except the Guianas).

Humidity and the frequency of heatwaves will increase in August and September, further increasing heat stress in a heat season that may rival that of the record hot years 2010, 2016 and 2020.

JUNE IN REVIEW

Mixed conditions were seen throughout the islands of the eastern Caribbean during the month of June. Trinidad was exceptionally wet to moderately dry; Grenada very to moderately wet; Barbados and St Maarten moderately wet to normal; St Vincent, Antigua and St Thomas normal; Saint Lucia slightly wet in the south to predominantly normal; Martinique slightly wet to slightly dry; Dominica and St Kitts slight to moderately dry; Guadeloupe predominantly normal to slightly dry; Anguilla slight to predominantly moderately wet and St Croix moderately wet. In the Guianas, conditions were mostly normal ranging to extremely wet extreme north of Guyana and to exceptionally dry in northeastern French Guiana. Aruba was slight to moderately dry and Curacao was moderately dry.

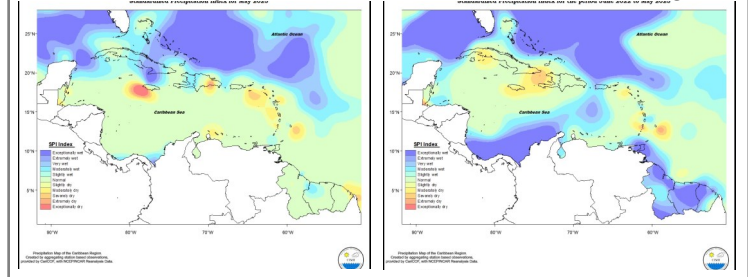
Puerto Rico ranged from moderately wet in the southwest to moderately dry on the northeastern coastline. Hispaniola ranged from exceptionally wet in the south to severely dry in the extreme east. Jamaica ranged from extremely wet in the northwest to slightly wet in the east. Grand Cayman was moderately dry. Northern Bahamas ranged from exceptional to moderately wet and Belize was normal in the south ranging to moderately dry in the north and to exceptionally dry in the west.

ABOUT CarISAM

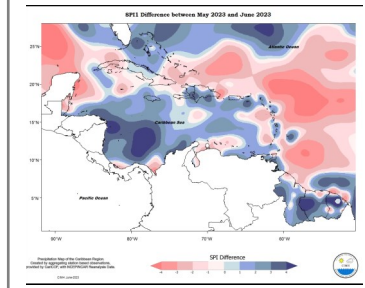
The Caribbean Society for Agricultural Meteorology (CarISAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises,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

Predominantly normal conditions prevailed across the Caribbean Islands during the 12-month period (July 2022 to June 2023). The Bahamas, and the Guianas were exceptionally wet for the period.

JUN 2023 SPI (left) and 12-mth SPI JUL 2022 - JUN 2023 (right)



SPI Difference (May and June 2023)



A mixture of conditions were observed across the region over the months of May and June with many territories wetter in the latter month.

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

AGRI-NEWS

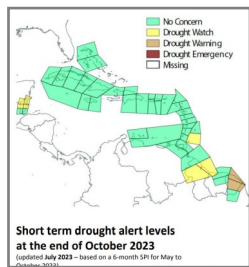
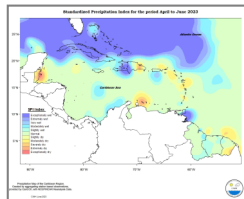
Guyana: As serious dry season unfolds, Guyana assessing how much water it needs to store. Read more <https://newsroom.gy/2023/07/14/as-serious-dry-season-unfolds-guyana-assessing-how-much-water-it-needs-to-store/>

Antigua: FAO and Government of Mexico offer critical support to farmers affected by drought in Antigua and Barbuda. Read more <https://www.fao.org/americas/noticias/ver/en/c/1643285/>

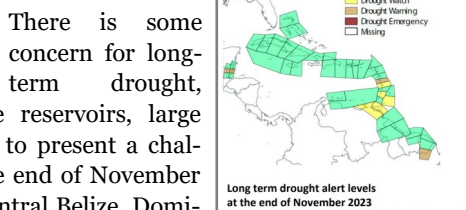
REGIONAL OUTLOOKS

DROUGHT

By the end of June severe (or worse) short-term drought has developed in the ABC Islands, Belize, and eastern parts of the Dominican Republic. Severe (or worse) long-term drought has developed in St. Vincent.

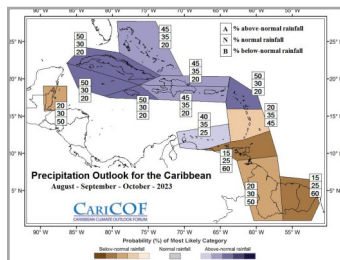


There may be some concern over short-term drought that can impact small rivers, streams and ponds, across French Guiana by the end of October and possibly across northern and central Belize, Guyana and Tobago. Interests in these areas should monitor their water resources.



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 November 2023 across parts of central Belize, Dominica, southern French Guiana, and possibly Martinique, St. Vincent and Trinidad and Tobago. Interests in these countries should monitor their water resources.

RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (AUGUST—OCTOBER 2023)



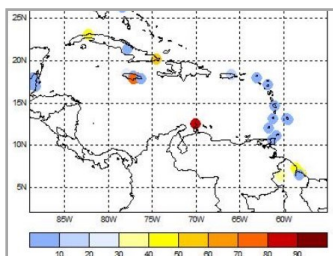
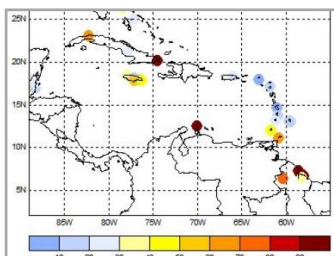
Rainfall totals from August through October are likely to be the usual or higher across the ABC Islands, The Bahamas, the Greater Antilles, and the Leeward Islands. By contrast, Barbados, Belize, Trinidad and Tobago, and the Windward Islands are likely to record the usual rainfall amounts

at most.

High to extremely high potential for long-term flooding, flash floods and related hazards exists across the Caribbean Islands and Belize in view of the likelihood of very wet spells and extreme wet spells. Surface wetness makes environmental conditions more conducive to moisture-related pests, but prevents wildfires.

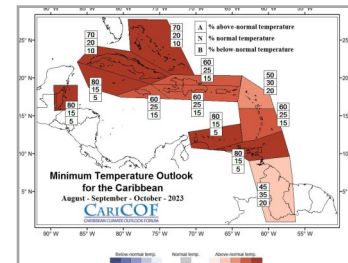
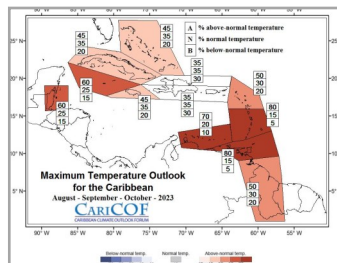
Probability of at least THREE 7-day dry spells in ASO

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



The occurrence of at least three 7-day dry spells is highly likely across The ABC Islands, coastal Guyana, and eastern Cuba. The occurrence of at least 15-day dry spell is favourable across the ABC Islands, and central Jamaica.

With the high likelihood of above normal day-time (maximum) and night-time (minimum) temperatures, conditions would likely be often be uncomfortable for many, during the second half of the annual Heat Season. Moreover, humidity and the frequency of heat-waves will increase in August and September, further increasing heat stress in a heat season that may rival that of the record hot years 2010, 2016 and 2020.



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

CLIMATE-SMART ADVISORIES

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 heat waves:

- ◆ Take heed of signs of heat stress in ruminants (e.g., panting, drooling, sweating) and poultry (e.g., spreading out of wings, panting etc)
- ◆ Minimize the transportation of livestock as much as possible during the hottest times of the day. This can increase their body temperature and furthermore heat stress (consider transporting animals at night).
- ◆ Keep a reliable, clean, and cool source of water available to poultry and livestock. Monitor and maintain soil moisture during extremely hot and dry conditions to reduce impact of heat stress on crops.
- ◆ Farmers should avoid foods that increase dehydration and take breaks in cool, shady areas to reduce body temperature.

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

Be hurricane prepared!

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:ssoute@cimh.edu.bb)

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