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

First half of the Caribbean dry season is forecast to feature a slower than usual decrease in rainfall, wet days, wet spells, but increase in dry spells.

The likelihood of excessive rainfall exists with resulting moderate potential for flash floods and cascading hazards in the Antilles, especially the southernmost islands, and Belize in December.

There is some chance of drought developing in the northwest Caribbean, particularly in Cuba for short term drought by the end of February.

In the Guianas, the secondary wet season comes with a high likelihood of excessive rainfall, resulting in high flood potential, rising water levels in soils, rivers and reservoirs through February.

Heat stress should not be a concern as the Caribbean enters its cool season.

OCTOBER IN REVIEW

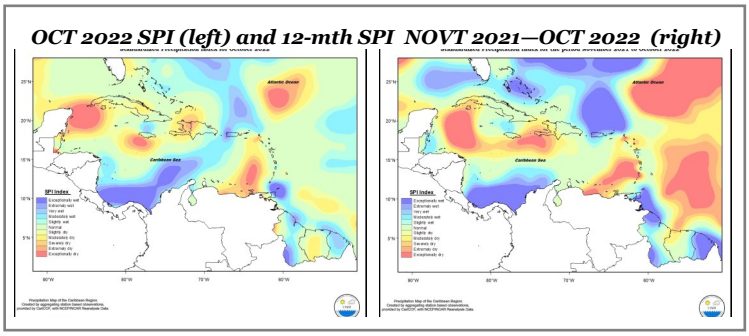
The islands of the eastern Caribbean experienced mixed conditions during the month of October. Trinidad ranged from moderately dry to exceptionally wet southwest to northeast; Tobago exceptionally wet; Grenada very to slightly wet; Barbados, St Vincent and St Croix normal to slightly dry; Saint Lucia and Anguilla normal to slightly wet; Martinique, Dominica, Guadeloupe, Antigua and St Thomas normal; St Kitts normal to moderately dry and St Maarten severely dry to normal. In the Guianas, conditions ranged from extremely dry to exceptionally wet. Aruba and Curacao were normal.

Puerto Rico ranged from exceptionally wet to normal west to east. Hispaniola ranged from slightly wet in southern areas of the Dominican Republic to extremely dry on the northern border of the two countries. Jamaica ranged from extremely dry in southern areas to moderately wet in the north. Grand Cayman was slightly dry in the west to predominantly normal. Cuba ranged from exceptionally dry in the west to slightly wet on the extreme southeast.

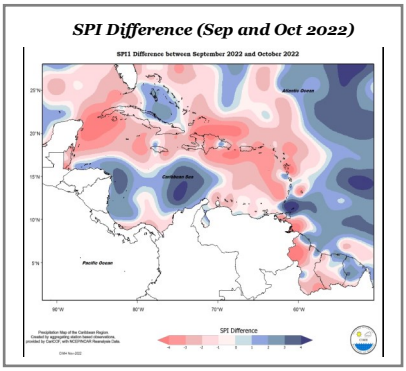
Northern Bahamas ranged from moderately wet to moderately dry and Belize ranged from normal in central areas to exceptionally dry in the south, severely dry in the north and slightly wet in the extreme southeast.

A review of the 12-month period (November 2021 to October 2022), showed a mixture of conditions across the Caribbean with exceptionally wet conditions across Puerto Rico and parts of the Guianas and exceptionally dry across St. Vincent.

OCT 2022 SPI (left) and 12-mth SPI NOVT 2021—OCT 2022 (right)



SPI Difference (Sep and Oct 2022)



Rainfall totals across the month of October had been predominantly drier than September across most of the region.

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

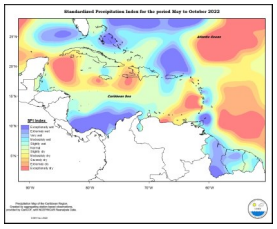
ABOUT CariSAM

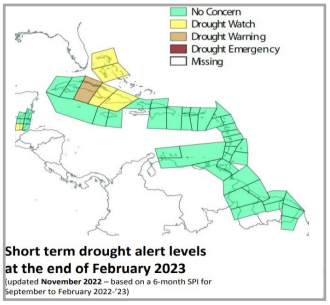
The Caribbean Society for Agricultural Meteorology (CariSAM) is an online platform that hosts forums, provided online weather and climate information for agro-meteorologists, and much more. Agricultural interests can register and access relevant information and be a part of future capacity building exercises,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

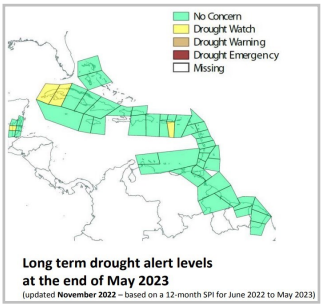
REGIONAL OUTLOOKS

DROUGHT

By the end of October, severe (or worse) short term drought has developed in Cuba. Severe (or worse) long term drought has developed in Antigua, Western Cuba, southwest Haiti, eastern Jamaica, Martinique, Sint Maarten, and St. Vincent.



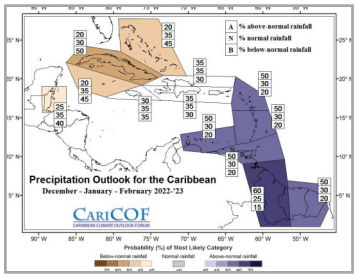




By the end of February 2023, there is some chance of impacts from short-term drought across The Bahamas, southwest Belize, eastern Cuba and possible central Cuba.

There is some possibility for long-term drought, that can impact large reservoirs, large rivers or groundwater, to present a challenge in farming by the end of May 2023. Interests in The Bahamas, southwest Belize and eastern Cuba should continue to monitor their water resources.

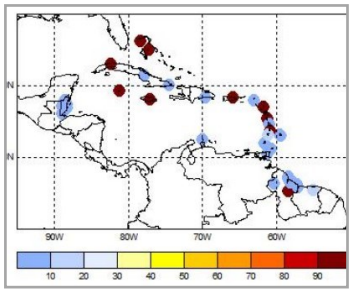
RAINFALL, WET/DRY SPELLS, TEMPERATURE and HEATWAVE DAYS (DECEMBER 2022—FEBRUARY 2023)



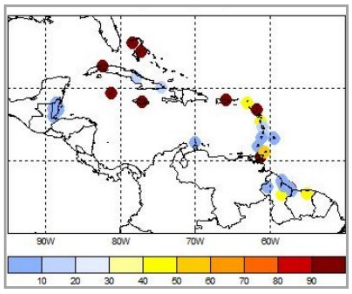
Rainfall totals from December through February could be normal to above normal across The Guianas, The ABC Islands and the eastern Caribbean and normal to below normal across The Cayman Islands, Belize, Cuba and The Bahamas.

Concerns remain for the potential of flash floods, long-term flooding, landslides, rockfall and soil erosions across The Guianas until February. Slower depletion of large water reservoirs in the Greater and Lesser Antilles. Slowly increasing wildfire potential by the end of February.

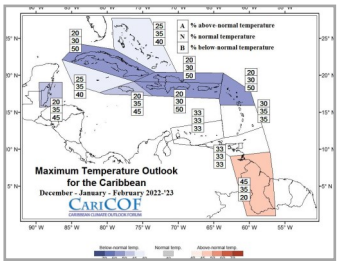
Probability of at least THREE 7-day dry spells in DJF

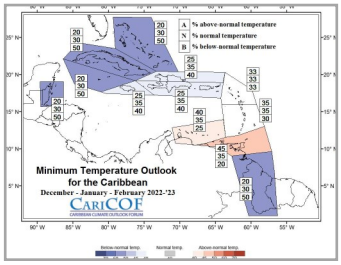


Probability of at least ONE 15-day dry spell in DJF



The occurrence of at least three 7-day dry spells is highly favourable across Jamaica, Cayman Islands, western Cuba, northwestern Bahamas, Puerto Rico. The occurrence of at least one 15-day dry spell remains likely across Cuba and northwestern Bahamas.





Day-time (maximum) and night-time (minimum) temperatures are expected to be close to the usual or slightly lower in many areas, except for Guyana during the day and, at night, in Antilles south of Guadeloupe. Heat stress should not be a concern as the Caribbean will soon be in its cool season.

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

CLIMATE-SMART ADVISORIES

In the event of flooding from very wet and extreme wet spells:

- Certain pests and diseases, such as phytophthora root rot, could increase during and after extreme wet conditions. Be prepare to apply appropriate disease and pest management practices.
- Ensure that livestock are housed on high ground; be prepared to evacuate animals in low lying areas and pastures which are prone to flooding and erosion.
- Secure inventory: Store chemicals, fertilizers, feeds, machinery etc. on high ground away from moisture prone areas and livestock.
- Maintain drains around crop bed to ensure proper drainage of water. Also, to improve soil drainage, plant crops on raised beds

In the event of short term drought (particularly Cuba), 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.

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.

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