

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 region is set to transition into a much warmer than usual Heat Season with recurrent heatwaves as early as April.

March may still be characterized by high evaporation rates and an annual peak in the frequency of short dry spells, as well as further buildup of any ongoing drought and/or with increasing wildfire potential in the far northwest and in the southeast.

From April to May, rainfall intensity and shower frequency are likely to sharply rise, resulting in high to extremely high potential for flooding, including flash floods, cascading hazards and associated impacts in most places, except the ABC Islands.

JANUARY IN REVIEW

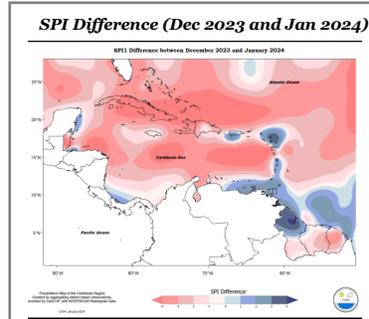
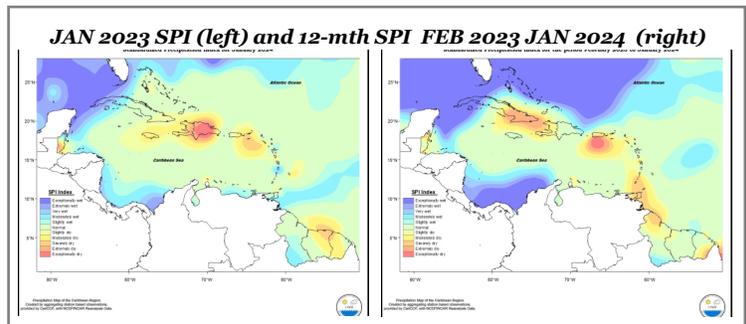
Mixed conditions were seen throughout the eastern Caribbean during the month of January. Trinidad was moderately wet to normal; Grenada, Antigua, St Maarten and Anguilla normal; Tobago and Dominica slightly dry to normal; Barbados moderately dry to normal; St Vincent slight to moderately wet; Saint Lucia very wet in the south to moderately wet in the north; Martinique slightly wet to slightly dry; Guadeloupe normal to slightly wet; St Kitts moderate to slightly dry; St Croix severely dry and St Thomas moderately dry. In the Guianas, conditions varied from moderately wet in southern areas of Guyana to severely dry in northern Suriname/French Guiana border. Aruba was slightly dry and Curacao was normal.

Puerto Rico was normal to moderately dry from west to east. The Dominican Republic was mostly exceptionally dry ranging to extremely dry in the west and to Normal in the extreme east. Jamaica was moderately dry. Grand cayman was normal. Cuba ranged from exceptionally wet in the west to slightly dry in the east. Northern Bahamas ranged from slightly dry to very wet and Belize ranged from extremely dry in southern areas to extremely wet in the north.

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 moderately dry conditions prevailed across the Caribbean Islands during the 12-month period (February 2023 to January 2024) with western Cuba and The Bahamas normal to exceptionally wet.



Predominantly relatively drier conditions were observed across the region in the month of January compared to December, with the exception of the northern Guyana, the Windward Islands, much of the Leeward Islands and Puerto Rico.

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

AGRI-NEWS

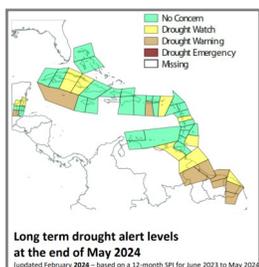
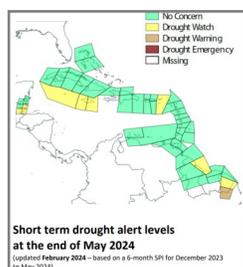
Guyana: In the face of climate change, Guyana embarked on a remarkable journey in 2020 to revitalise its agriculture sector. These efforts have yielded significant results, mainly increasing local food production nationwide, and reducing the country's food import bill by 14 per cent between 2021 and 2022. Read more <https://agriculture.gov.gy/2024/02/27/guyanas-agriculture-imports-reduced-by-14-per-cent-between-2021-2022/>

REGIONAL OUTLOOKS

DROUGHT

Moderate (or worse) short-term drought has developed in Antigua, Aruba, Dominica, French Guiana, Guadeloupe, Guyana, Martinique, Puerto Rico, Saint Kitts and Nevis, Sint Maarten/St-Martin, western Suriname, and Tobago. Moderate (or worse) long-term drought has developed in northern Belize, Cuba, Haiti, Martinique, Grenada, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent, southwest Suriname, Trinidad and Tobago, and the U.S. Virgin Islands.

There is some concern over short-term drought that can impact small rivers, streams and ponds by the end of May across French Guiana and possibly develop or continue in southern Belize, Grand Cayman, central French Guiana, northeastern Guyana, Jamaica, and the U.S. Virgin Islands. **Interests in these territories should monitor their water resources.**

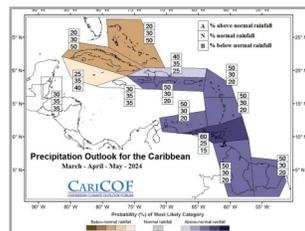


There is some concern for long-term drought, that can impact large reservoirs, large rivers or groundwater, to present a challenge in farming by the end of

May 2024 across southwest Belize, Grand Cayman, central and southern French Guiana, northeastern and inland portions of Guyana, southwest Puerto Rico, Suriname and possibly develop or continue across northern Belize, Central Cuba, Dominica, coastal French Guiana, northern Guyana, Tobago, the U.S. Virgin Islands. **Interests in these countries should monitor their water resources.**

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

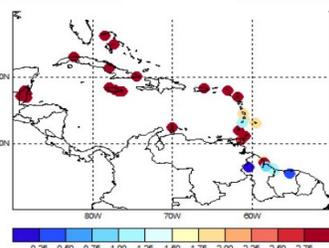
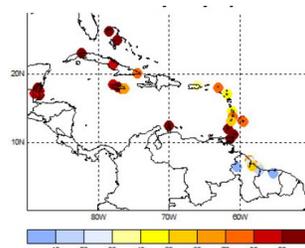
Rainfall totals from March through May are likely to be the usual or lower across The Bahamas, Belize, Cayman Islands and Cuba but the usual or higher elsewhere.



The potential for flooding, including flash floods and cascading impacts arising from intense rainfall events increases from limited or moderate in March, to high or extremely high in April and May.

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

MAXIMUM number of 15-day dry spell in MAM



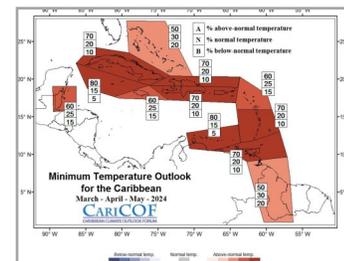
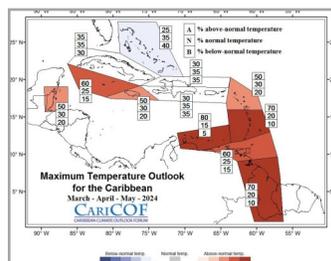
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The occurrence of at least three 7-day dry spells is highly favourable across the region. At least two to three 15-day dry spells are expected across the region.

Day-time (maximum) and night-time (minimum) temperatures are forecast to be higher than usual in most areas. Significant episodes of heat stress may, therefore, appear after the end of the Caribbean Cool Season in March. However, heatwaves might well be recorded this March, notably where soil moisture content is even lower than usual.



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

CLIMATE-SMART ADVISORIES

In the event of frequent dry spells and heatwaves:

- ◆ Ensure regular weeding to reduce competition and further stress to crops
- ◆ Utilize irrigation techniques to apply the right amount of water for the crop and to avoid water logging or runoff
- ◆ Avoid transplanting in prolonged dry conditions this may trigger transplant shock, yield reduction and in severe cases death.
- ◆ Avoid planting in extreme hot conditions, this may affect germination rate and percentage. However, if planting, take into consideration water resource availability.
- ◆ Ensure proper ventilation, shading and adequate water
- ◆ Monitor poultry for signs of heat stress (e.g., spreading out of wings, panting etc) and in ruminants (e.g., panting, drooling, sweating)

With the likelihood for an increase in wildfires:

- ◆ Keep farm clean and free from trash and combustible material
- ◆ Never leave a fire unattended
- ◆ Never burn in windy conditions

In the event of flooding towards the end of the Dry Season:

- ◆ 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.