Fiji Sugarcane Climate Outlook from February 2021 Planting Season

Volume 17 Issue: 1 Issued: January 25, 2021
Next issue: April 25, 2021

Key Messages

Feb - Apr 21 Outlook

- The sugarcane growing areas received more than adequate rainfall in the past 3 months, with December recording twice as much rainfall as October. This was due to TC Yasa bringing significant rainfall. The average monthly rainfall between Oct – Dec 2020 for Lautoka Mill, Rarawai Mill, Penang Mill and Labasa Mill were 185mm, 213mm, 277mm and 280mm respectively.

- The forecast models used by the Fiji Meteorological Services predicts that a similar scenario of more rainfall will be in place for the next few months. This is due to the La Nina event that still hovers in the Pacific waters.

- Land preparation for 2021 season planting should commence now and planting of cane to be planned for mid-March onwards. Seedcane sources to be identified and certified by SRIF in advance.

- The air temperatures predicted for the next few months is above average and warmer conditions are expected that will allow the weeds to germinate and grow vigorously. An integrated weed management that includes manual weeding followed by weedicides application should be adopted by the farmers to control the weeds.

- With prediction of above normal rainfall, farmers must ensure that fields and main drains in and around the farms are clean to allow easy drainage of excess water from the fields to avoid water logging conditions.

For further advice, please contact SRIF on 8921839

Climate Outlook

- Rainfall is likely to be above normal across the sugarcane belts during both the February to April 2021 and May to July 2021 seasons.

- With the outlook of above normal rainfall, there is an elevated risk of flooding in the coming months.

- Air temperatures are expected to be above normal across the sugarcane belts during both the February to April 2021 and May to July 2021 seasons.

- A moderate La Niña event continues in the tropical Pacific. The La Niña event is expected to gradually weaken and transition to ENSO-neutral state by second half of the year.

- January to March is the peak period for tropical cyclone activity in the southwest Pacific. Fiji could get affected by 1-3 tropical cyclones during the ongoing season.

- While one tropical cyclone has already affected the Fiji Group during this tropical cyclone season, the season is not over until April. Therefore, the public needs to remain vigilant and keep up-to-date with the latest weather forecasts.
Rainfall Outlook: February to April 2021

Rainfall Outlook: May to July 2021
Air Temperature Outlook: February to April 2021

Air Temperature Outlook: May to July 2021
Fiji Sugarcane Climate Outlook

The Fiji Sugarcane Climate Outlook is a collaborative product of the Fiji Meteorological Service (FMS) and the Sugar Research Institute of Fiji (SRIF). It is produced to provide advisories to the farmers and other key sugar industry stakeholders. It aims to provide advanced warning on climate abnormalities for informed decision making. The product is issued four times a year inline with the cycles of the sugarcane farming in Fiji:

- End of January with Outlook from February for the Planting Season;
- End of April with Outlook from May for the Planting & Harvesting Season;
- End of July with Outlook from August for the Harvesting & Crushing Season; and
- End of October with Outlook from November for the Late Harvesting and Maintenance Season.

El Niño Southern Oscillation (ENSO)

ENSO is the principal driver of the year-to-year variability of Fiji’s climate. There are two extreme phases of this phenomenon, El Niño and La Niña.

El Niño or La Niña events usually recur after every 2 to 7 years. It normally develops during the period April to June, attains peak intensity between December to February and decays between the period April to June the following year. While most events last for a year, some have persisted for up to 2 years. It should be also noted that no two El Niño or La Niña events are exactly the same. Different events have different impacts, but most exhibit some common climate characteristics.

Usually there is a lag effect on Fiji’s climate with ENSO events, that is, once an El Niño or La Niña event is established in the tropical Pacific, it may take 2-6 months before its impact is seen on Fiji. Similarly, once an event finish, it can take 2-6 months for climate to normalise.

El Niño events usually result in reduction of Fiji’s rainfall. Often the whole of Fiji is affected in varying degrees and it is quite unusual for one part of the country to experience a prolonged dry spell, while the other is in a wet spell. The relationship and level of rainfall suppression is greater in the Dry Zone (sugarcane growing areas) than in the Wet Zone. It is the suppression of rainfall during the Cool/Dry Season (May to October) that is normally of most concern. Dry Season mean monthly rainfall in the Dry Zone ranges between 40mm and 90mm. A reduction in Cool/Dry Season rainfall in the Dry Zone results in little or no rainfall until the next Wet Season. While usually the strength of an ENSO event is proportional to its impact on Fiji, at times weak event can also have a significant impact.

A La Niña event typically has an opposite effect on Fiji’s climate resulting in wetter than normal conditions, occasionally leading to flooding during the Warm/Wet Season (November to April).

When ENSO is neutral, that is, neither El Niño nor La Niña, it has little effect on global climate, meaning other influences are more likely to dominate.

Climate (Rainfall/Air Temperature) Outlook

The climate outlook is in tercile format. The below normal range is one where rainfall/temperature is less than the 33rd percentile. That is, rainfall for the period (in this case three months) which is in the lowest one third of occurrences. Here, three-month rainfall/temperature is arranged for a particular period from the highest on record to lowest on record. Rainfall/temperature below the one-third point would be considered below normal. Rainfall/temperature in the middle third would be considered normal and upper third above normal. For example, a rainfall prediction of 48:31:21, has the highest probability of rainfall in the below normal category (48%). This means that rainfall is most likely to be below normal for the on-coming three months. However, there is still a 31% chance of normal rainfall and 21% chance of above normal rainfall. Similarly, with a prediction of 20:40:40, means normal or above normal rainfall would be expected. In the case of 33:33:34 there are equal chances of receiving below normal, normal or above normal rainfall (climatology). A rainfall prediction of below normal doesn't indicate no rainfall at all.

Disclaimer: The seasonal climate outlook provided in this document is presented for the sugar sector and should be used as a guide only. While FMS and SRIF takes all measures to provide accurate information and data, it does not guarantee 100% accuracy of the forecast presented in this outlook. Please enquire with FMS and SRIF for expert advice, clarifications and additional information as and when necessary. The user assumes all risk resulting directly or indirectly from the use of the climate prediction information.