



WEATHER DATA COLLECTED DURING THE SUMMER 2024  
SEASON AT GITEGA AGROSYNOPTIC WEATHER STATION.

SECOND MONTH



PREPARED BY DATA OBSERVATION GITEGA TEAM.

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## CHAPTER 1: WEATHER DATA FOR THE MONTH OF JULY

This chapter provides an overview of the observed data, emphasizes the key findings, and illustrates the weather patterns for the month of July 2024.

### 1.1. MAXIMUM AND MINIMUM TEMPERATURE AND RAINFALL.

Average Maximum and Minimum temperature and total rainfall of July are summarized in Table 1.1.

Average temperature	Maximum temperature	Minimum temperature	Total rainfall
23.09 <sup>0</sup> C	28.38 <sup>0</sup> C	17.81 <sup>0</sup> C	0 mm

Table 1.1: Temperature and Total Rainfall.

### 1.2. OTHER SIGNIFICANT DATA

PARAMETER	VALUE	DAY
Highest Maximum temperature	29.9 <sup>0</sup> C	25 <sup>th</sup> ,07,2024
Lowest Maximum temperature	29.9 <sup>0</sup> C	22 <sup>nd</sup> ,07,2024
Highest Minimum temperature	21.1 <sup>0</sup> C	22 <sup>nd</sup> ,07,2024
Lowest Minimum temperature	15.3 <sup>0</sup> C	1 <sup>st</sup> ,07,2024
Highest Rainfall	0 mm	All
Highest minimum Grass temperature	18.2 <sup>0</sup> C	30 <sup>th</sup> ,07,2024
Average Grass temperature	14.7 <sup>0</sup> C	N/A
Lowest Minimum Grass temperature	11.6 <sup>0</sup> C	03 <sup>th</sup> ,07,2024.
Highest Insolation	9 Hours 36min	12 <sup>nd</sup> ,07,2024.
Lowest Insolation	12 min	12 <sup>nd</sup> ,06,2024.
Highest Piche evaporation	7.7 mm	28 <sup>th</sup> ,07,2024
Lowest Piche evaporation	3.7 mm	22 <sup>nd</sup> ,07,2024.
Highest BAC evaporation	5.3 mm	13 <sup>rd</sup> ,07,2024.
Lowest BAC evaporation	2 mm	20 <sup>th</sup> ,07,2024.

Table 1.2: Summary of Maximum and Minimum Observed Data.

### 1.3. HOURLY AVERAGE TEMPERATURE

00:00	21.4 °C	13:00	27.0 °C
01:00	20.8 °C	14:00	27.6 °C
02:00	20.1 °C	15:00	28.0 °C
03:00	19.5 °C	16:00	28.1 °C
04:00	18.9 °C	17:00	27.6 °C
05:00	18.4 °C	18:00	26.7 °C
06:00	18.0 °C	19:00	25.1 °C
07:00	18.1 °C	20:00	24.2 °C
08:00	19.5 °C	21:00	23.3 °C
09:00	21.8 °C	22:00	22.7 °C
10:00	24.0 °C	23:00	22.3 °C
11:00	25.2 °C		
12:00	26.3 °C		

Table 1.3: Hourly Average Temperature.



## 1.4. SOIL TEMPERATURES

Table 1.3 summarizes the average temperatures recorded by various soil thermometers at 6:00 AM, 12:00 PM, and 18:00 PM.

HEIGHT	06:00	12:00	18:00
10Cm	22.94 <sup>0</sup> C	24.29 <sup>0</sup> C	25.67 <sup>0</sup> C
20Cm	23.96 <sup>0</sup> C	24.07 <sup>0</sup> C	25.14 <sup>0</sup> C
50Cm	24.9 <sup>0</sup> C	24.85 <sup>0</sup> C	24.81 <sup>0</sup> C
100Cm	24.69 <sup>0</sup> C	24.7 <sup>0</sup> C	24.71 <sup>0</sup> C

Table 1.4: The Mean soil temperatures.

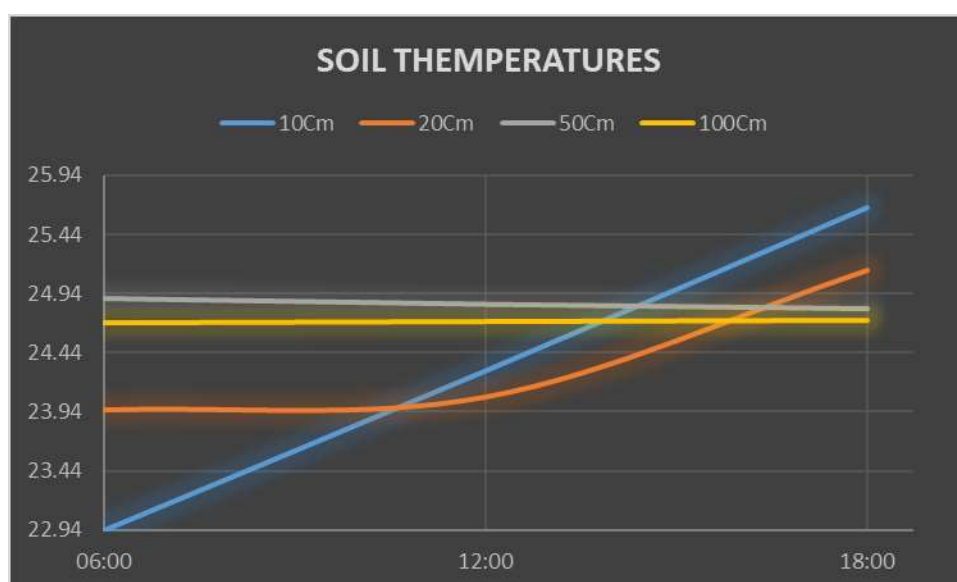


Figure 1.1: Variation of Soil temperature during a day.

## 1.5. PICHE AND BAC EVAPORATION

Table 1.4 displays the average evaporation rates at Piche and BAC.

EVAPORATION TIME	PICHE	BAC
18H00-06H00	2.3 mm	1.7 mm
08H00-08H00	5.9 mm	3.8 mm
06H00-18H00	3.6 mm	2.2 mm

Table 1.5: BAC and Piche Evaporation.

## 1.6. INSOLATION

Table 1.6 summarizes the recorded insolation for the month of July.

	AM	PM	TOTAL
TOTAL	99 hours 6min	95 hours 12min	194 hours 25min
AVERAGE	3h 12min	3h 4min	6 hours 16min

Table 1.6: Insolation