



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

FIRST MONTH

JUN

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CHAPTER 1: WEATHER DATA FOR THE MONTH OF JUNE

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

1.1. MAXIMUM AND MINIMUM TEMPERATURE AND RAINFALL.

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

Average temperature	Maximum temperature	Minimum temperature	Total rainfall
22.25 ⁰ C	27.4 ⁰ C	17.1 ⁰ C	0.6 mm

Table 1.1: Temperature and Total Rainfall.

1.2. OTHER SIGNIFICANT DATA

PARAMETER	VALUE	DAY
Highest Maximum temperature	29.5 ⁰ C	5 th ,06,2024
Lowest Maximum temperature	25.5 ⁰ C	22 th ,06,2024
Highest Minimum temperature	19.6 ⁰ C	17 th ,06,2024
Lowest Minimum temperature	13.7 ⁰ C	26 th ,06,2024
Highest Rainfall	0.6 mm	2 th ,06,2024
Highest minimum Grass temperature	17.2 ⁰ C	21 th ,06,2024
Average Grass temperature	14.3 ⁰ C	
Lowest Minimum Grass temperature	10.2 ⁰ C	26 th ,06,2024.
Highest Insolation	9 Hours 18min	26 th ,06,2024.
Lowest Insolation	3 Hours 48 min	12 th ,06,2024.
Highest Piche evaporation	5.9 mm	3 rd ,06,2024
Lowest Piche evaporation	3.5 mm	12 th ,06,2024.
Highest BAC evaporation	5.6 mm	27 th ,06,2024.
Lowest BAC evaporation	2 mm	1 st ,06,2024.

Table 1.2: Summary of Maximum and Minimum Observed Data.

1.3. HOURLY AVERAGE TEMPERATURE

00:00	20.4°C	13:00	25.8 °C
01:00	19.8 °C	14:00	26.4 °C
02:00	19.3 °C	15:00	26.9 °C
03:00	18.7 °C	16:00	26.8 °C
04:00	18.3 °C	17:00	26.5 °C
05:00	18.0 °C	18:00	25.5 °C
06:00	17.5 °C	19:00	23.7 °C
07:00	17.7 °C	20:00	23.0 °C
08:00	19.1 °C	21:00	22.4 °C
09:00	21.8 °C	22:00	21.8 °C
10:00	23.3 °C	23:00	21.2 °C
11:00	24.3 °C		
12:00	25.2 °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	22.3 ⁰ C	23.6 ⁰ C	24.8 ⁰ C
20Cm	23.1 ⁰ C	23.3 ⁰ C	24.3 ⁰ C
50Cm	24.3 ⁰ C	24.3 ⁰ C	24.3 ⁰ C
100Cm	24.5 ⁰ C	24.5 ⁰ C	24.5 ⁰ C

Table 1.4: The Mean soil temperatures.

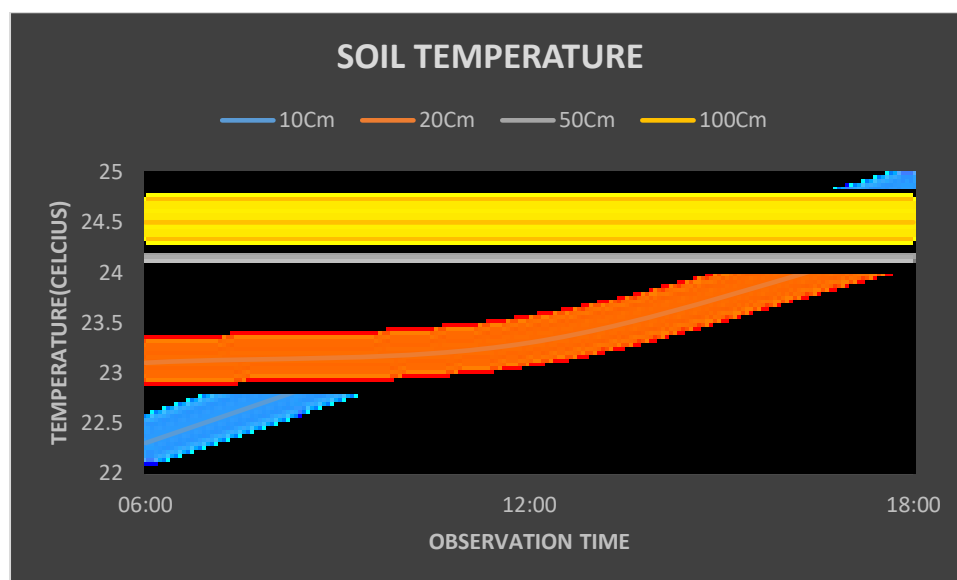


Figure 1.1: Variation of Soil temperature during a day.

1.5. PICHE AND BAC EVAPORATION

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

EVAPORATION TIME	PICHE	BAC
18H00-06H00	1.8 mm	1.7 mm
08H00-08H00	4.9 mm	3.6 mm
06H00-18H00	3.0 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 June.

	AM	PM	TOTAL
TOTAL	116hours 36min	103 hours 06 min	219hours 24 min
AVERAGE	3h 54min	3h 24min	7hours 18min

Table 1.6: Insolation.



1.7. CLOUDS AND INSOLATION

In June mostly days were characterized by average clouds.

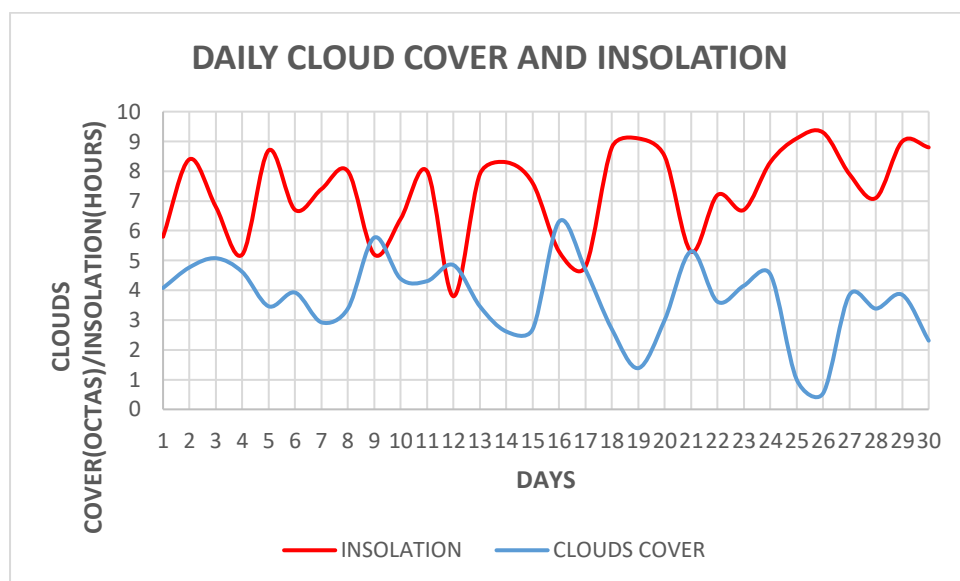


Figure 1.2: Daily Average Clouds cover.

1.8. CLOUDS DEVELOPMENT

Throughout the observation period, data indicates that there is a higher prevalence of clouds between 06:00 and 09:00 and between 11:00 and 16:00.

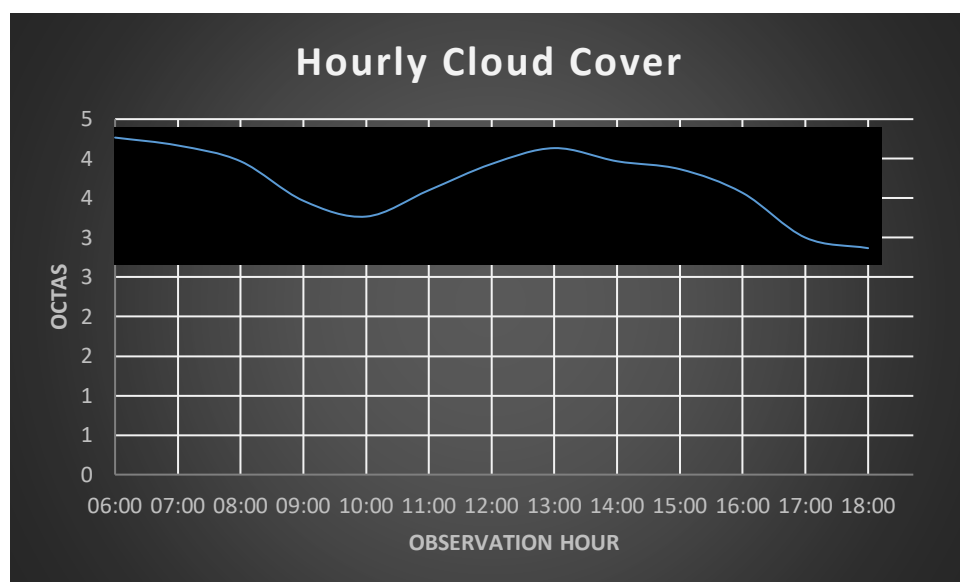


Figure 1.3: Hourly Average Clouds cover.