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

THIRD MONTH

PREPARED BY DATA OBSERVATION GITEGA TEAM.

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CHAPTER 1: WEATHER DATA FOR THE MONTH OF MAY

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

1.1. MAXIMUM AND MINIMUM TEMPERATURE AND RAINFALL.

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

Maximum temperature	Minimum temperature	Total rainfall
28.3^{0}C	17.2^{0}C	123.1 mm

Table 1.1:Temperature and Total Rainfall.

1.2. OTHER SIGNIFICANT DATA

PARAMETER	VALUE	DAY
Highest Maximum temperature	28.3^{0}C	12th and 18th 05,2024
Lowest Maximum temperature	24.5^{0}C	8th ,05,2024
Highest Minimum temperature	20.3^{0}C	6st,05,2024
Lowest Minimum temperature	17.2^{0}C	25th ,05,2024
Highest Rainfall	35.3 mm	8th ,05,2024
Hightest Minimum Grass temperature	19.8^{0}C	6st,05,2024
Lowest Minimum Grass temperature	15.4^{0}C	25th and 27th ,05,2024.
Highest Insolation	9 Hours 30min	25th ,05,2024.
Lowest Insolation	48 min	8th ,05,2024.
Highest Piche evaporation	5 mm	21st ,04,2024
Lowest Piche evaporation	1 mm	8th ,05,2024.
Highest BAC evaporation	7.5 mm	31st ,05,2024.
Lowest BAC evaporation	0.5 mm	10th ,05,2024.

Table 1.2: Summary of Maximum and Minimum Observed Data.

1.3. 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	23.0^{0}C	23.9^{0}C	24.9^{0}C
20Cm	23.6^{0}C	23.8^{0}C	24.5^{0}C
50Cm	24.4^{0}C	24.4^{0}C	24.3^{0}C
100Cm	24.4^{0}C	24.4^{0}C	24.4^{0}C

Table 1.3: The Mean temperature of Soil thermometers.

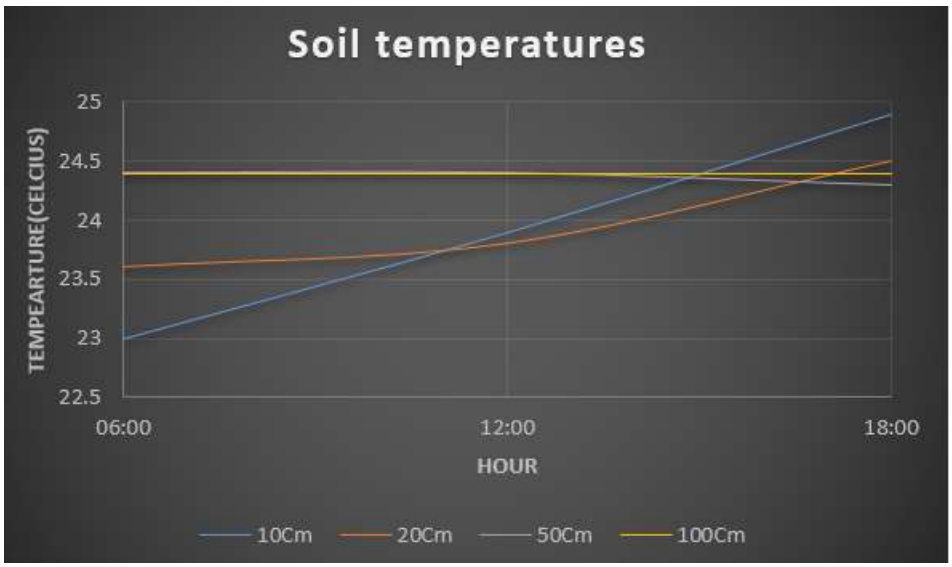

Figure 1.1: Variation of Soil temperature during a day.

1.4. PICHE AND BAC EVAPORATION

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

EVAPORATION TIME	PICHE	BAC
18H00-06H00	2.2 mm	1.6 mm
08H00-08H00	3.3 mm	3.3mm
06H00-18H00	1.1 mm	1.3 mm

Table 1.4: BAC and Piche Evaporation.

1.5. MINIMUM GRASS AND MINIMUM DAILY TEMPERATURE.

The data indicates that the mean average temperature of the grass is 1.7°C lower than the daily minimum temperature, as presented in Table 1.5.

MINIMUM GRASS TEMPERATURE	MINIMUM DAILY TEMPERATURE
17.2^0C	18.9^0C

Table 1.5: Grass and Daily Minimum temperatures.

1.6. INSOLATION

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

	AM	PM	TOTAL
TOTAL	76 hours 18 min	104 hours 30 min	180hours 48 min
AVERAGE	2h 30min	3h 24min	5 hours 48min

Table 1.6: Insolation.

1.7. CLOUDS AND INSOLATION

In May mostly days were characterized by abundant clouds.

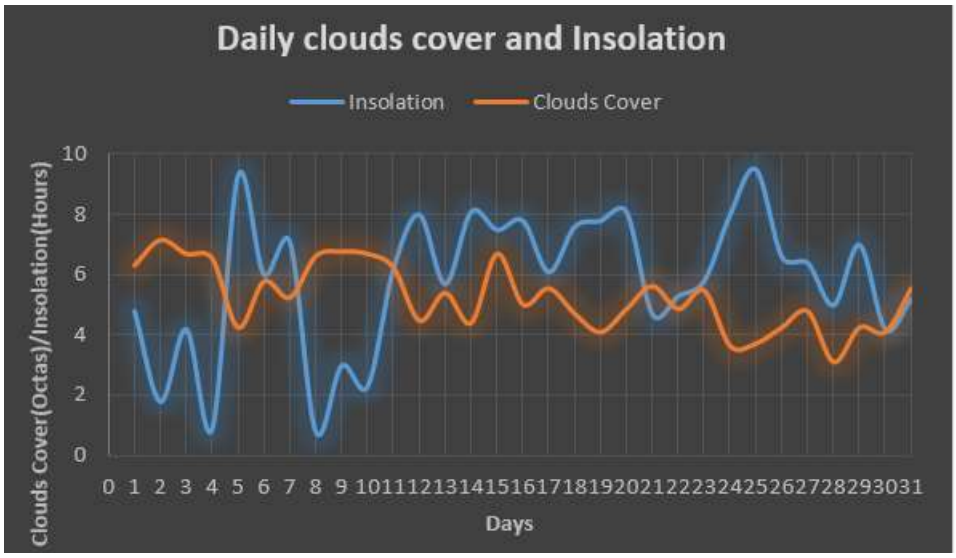

Figure 1.2:Daily Average Clouds cover.

1.8. CLOUDS DEVELOPMENT

Throughout the observation period, data indicates that there is a higher prevalence of clouds between 08:00 and 15:00, with more abundant cloud cover in the morning than afternoon.

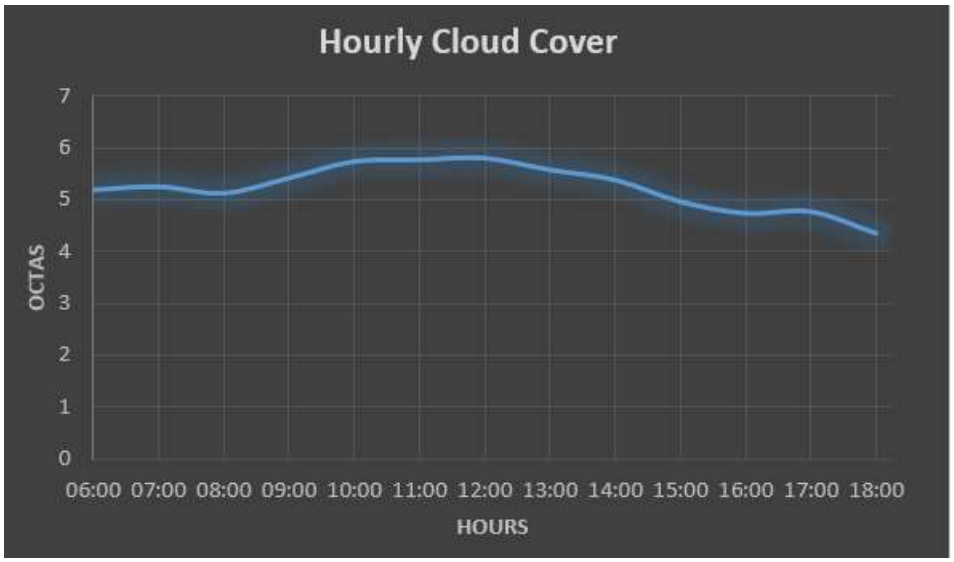

Figure 1.3: **Hourly Average Clouds cover.**