



Government of Malawi
Ministry of Forestry and Natural Resources

Malawi 10-day Weather and Agrometeorological Bulletin

"In support of National Early Warning Systems and Food Security"



Be wise be weather-wise
Department of Climate Change and
Meteorological Services

Period: 21 – 31 October 2021

Season: 2021/2022

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HIGHLIGHTS

- Isolated light to moderate rainfall amounts received over parts of Malawi ...
- Land preparation in progress over most parts of the country...
- Isolated light to moderate rainfall amounts expected during 01 to 10 November 2021...

1.0 WEATHER SUMMARY

During the period 21 to 31 October 2021, an influx of cool and moist south easterly air mass, coupled with mid-level instability resulted in isolated light to moderate rainfall experienced in some areas of the country.

1.1 RAINFALL SITUATION

During the period 21 to 31 October 2021, isolated cases of light to moderate rainfall amounts were recorded over some areas of the country. Areas that recorded at least 10.0mm of rainfall included Mzuzu Meteorological station with the highest recorded amount of 61.7mm, Thyolo Meteorological station recorded 51.0mm, Mimosa Meteorological station in Mulanje district recorded 46.2mm, Ekwendeni Agriculture in Mzimba district recorded 29.2mm, Chikangawa Forest in Mzimba district recorded 29.1mm, Chingale Agriculture and Chancellor college in Zomba district recorded 25.7 and 25.4mm respectively, Chizunga Factory in Thyolo district recorded 22.8mm, Lujeri Tea estate in Mulanje district recorded 17.6mm, Mlangeni in Ntcheu district recorded 17.5mm, Masambanjati Agriculture in Thyolo district recorded 16.1mm, Chiradzulu Agriculture recorded 13.8mm, Mulanje Agriculture recorded 13.6mm, Zombwe Agriculture in Mzimba district recorded 12.9mm, Satemwa Tea estate in Thyolo recorded 12.7mm, Kasinthula Research station in Chikwawa district recorded 12.0mm and Nathenje Agriculture in Lilongwe recorded 10.0mm.

1.2 AIR TEMPERATURE

Generally hot temperatures were experienced over Malawi during the period 21 to 31 October 2021. Mean daily maximum temperatures had ranged from 27.6°C at Dedza Meteorological station to 37.7°C at Ngabu Meteorological station in Chikwawa. Absolute maximum temperature reported at Ngabu during the period under review was 43.5°C. Mean daily minimum temperatures had ranged from 14.5°C at Dedza Meteorological station to 27.7°C at Ngabu Meteorological station. Details in Table 1.

1.3 WIND SPEEDS

During the period 21 to 31 October 2021 most parts of Malawi experienced light to moderate wind speeds. Daily average wind speeds measured at a height of two metres

above the ground level across the country had ranged from 3.6 km per hour at Nkhotakota and Nkhata Bay Meteorological stations to 13.7 km per hour at Chileka Meteorological station. More details in Table 1.

1.4 RELATIVE HUMIDITY

During the period 21 to 31 October 2021, air over Malawi was mainly dry. Daily average relative humidity values recorded from various weather stations in Malawi had ranged from 40% at Ngabu Meteorological station to 59% at Makoka Meteorological station. Details as in Table 1.

1.5 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 21 to 31 October 2021. Daily average values had ranged from 7.2 hours per day at Mzuzu Meteorological stations to 9.2 hours per day at Ngabu Meteorological station and consequently the amount of Solar Radiation had ranged from 9.1 to 10.2 cal/cm²/day. For details see Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review, the main on-farm activity over Malawi has been land preparation in readiness for effective planting rains.

3. PROSPECTS FOR 2021/2022 RAINFALL SEASON

La Nina conditions have been established over eastern-central equatorial Pacific Ocean. Global models are projecting that these conditions are likely to persist throughout the 2021/2022 rainfall season. The rainfall forecast for the 2021/2022 season is that:

“During October to December 2021, most of the southern and central areas are expected to receive normal to below-normal rainfall amounts while most of the northern areas are expected to receive normal to above-normal rainfall amounts.

4. OUTLOOK FOR 01-10 NOVEMBER 2021

Models for short and medium range forecasts indicate less chance of convective activities over Malawi during the period 01 to 10 November 2020.

During January to March 2022, most areas in the south, center and the north are expected to receive normal to above-normal rainfall amounts.”

At national level, there are higher chances of normal to above normal rainfall amounts over most parts of the country.

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 21 TO 31 OCTOBER 2021

ADD/STATION NAME	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED (Km/Hr)	RH (%)	SUN SHINE HOURS	Eo mm per day	Et mm per day	RADIATION cal cm ⁻² p/day
KARONGA ADD										
CHITIPA	31.4	19.6	35.0	18.0	13.0	49	7.5	6.9	5.5	9.3
KARONGA	34.0	21.6	36.4	20.6	7.9	51	7.9	7.4	5.9	9.6
MZUZU ADD										
BOLERO	32.8	21.5	32.8	21.5	4.3	46	7.8	6.7	5.3	9.5
MZIMBA	30.1	17.7	34.5	15.8	8.3	51	7.9	6.8	5.3	9.6
MZUZU	28.0	16.5	31.5	15.5	6.5	58	7.2	6.2	4.9	9.1
NKHATA BAY	33.5	19.1	37.5	17.7	3.6	57	8.4	6.8	5.4	9.9
KASUNGU ADD										
KASUNGU	34.2	16.9	36.1	15.5	10.8	56	7.5	6.5	5.2	9.3
LILONGWE ADD										
CHITEDZE	31.7	16.8	34.4	14.4	4.0	49	7.8	6.3	4.9	9.5
DEDZA	27.6	14.5	31.3	10.5	5.8	58	7.3	5.6	4.3	9.1
K I A	30.5	17.1	33.2	12.3	8.6	47	7.6	6.7	5.3	9.3
SALIMA ADD										
NKHOTAKOTA	32.5	21.8	35.5	19.5	3.6	51	8.8	7.6	6.0	10.2
SALIMA	33.3	22.6	36.6	20.7	10.1	50	8.8	7.5	6.0	10.1
MACHINGA ADD										
MAKOKA	30.6	17.2	34.4	13.8	5.4	59	7.8	6.3	5.0	9.4
MANGOCHI	34.2	27.7	37.5	22.7	4.0	53	8.9	7.2	5.7	10.2
MONKEY BAY	33.0	23.1	35.5	21.1	8.3	50	8.7	7.3	5.9	10.0
BLANTYRE ADD										
BVUMBWE	28.6	16.7	32.9	12.1	7.9	56	7.4	6.1	4.9	9.1
CHICHIRI	30.3	17.1	36.0	8.0	5.0	49	7.5	6.4	5.1	9.2
CHILEKA	32.4	20.6	37.7	16.8	13.7	44	8	6.6	5.3	9.5
MIMOSA	32.2	16.9	37.0	14.0	5.0	58	7.7	6.1	4.9	9.3
SHIRE VALLEY ADD										
NGABU	37.7	23.6	43.5	19.0	5.8	40	9.2	7.7	6.3	10.3

Glossary of some terms on this table

- Eo = Potential Evaporation, Et = Potential Evapotranspiration and RH = Relative Humidity
- Mean Temperature of the day = (Max of the day + Min of the same day)/2
- ABS Max (Min) = Absolute Maximum (minimum) is the highest (lowest) of maximum (minimum) temperatures observed for a given number of days (calendar month) of a specified period of months (years).
- To convert Meters Per Second (mps) to Kilometres per hour (Km/hr) = mpsx3.6