



Government of Malawi
Ministry of Natural Resources, Energy and Mining

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

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Season: 2019/2020

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HIGHLIGHTS

- Isolated moderate rainfall experienced over central and south ...
- Land preparation remained major on-farm agriculture activity ...
- Local instability is likely to enhance rainfall activities mostly over southern and central Malawi ...

1.0 WEATHER SUMMARY

During the period 01 to 10 October 2019, a convergence ahead of pressure rises coupled with mid-level instability brought fairly scattered moderate rainfall amounts.

1.1 RAINFALL SITUATION

During the first ten days of October 2019, isolated cases of moderate to locally heavy rainfall amounts were recorded mainly over southern and central Malawi. The highest recorded rainfall amount was 139.2mm recorded at Mchinji Boma. Tembwe Agriculture recorded 88.1mm, Toleza farm in Balaka recorded 80.5mm, Neno Agriculture recorded 70.3mm, Dzonzi Forest in Ntcheu recorded 69.5mm, Chancellor College in Zomba recorded 69.0mm, Phalula Agriculture in Balaka recorded 59.5mm, Thuchila Agriculture recorded 57.2mm, Mulanje Boma recorded 56.6mm, Balaka township recorded 51.6mm, Lujeri Tea Estate recorded 50.5mm, Walkers Ferry recorded 48.2mm, Nkhatabay Meteorological station recorded 29.1mm, Chitedze recorded 28.6mm, Mangochi recorded 25.5mm and Chichiri Meteorological station recorded 23.5mm.

1.3 AIR TEMPERATURE

Generally hot temperatures were experienced over Malawi during the period 01 to 10 October 2019. Mean daily maximum temperatures had ranged from 27.8°C at Mzuzu Aerodrome to 33.9°C at Karonga Meteorological station while the mean daily minimum temperatures had ranged from 15.8°C at Dedza to 23.5°C at Monkey Bay in Mangochi district. Details in Table 1.

1.4 WIND SPEEDS

During the period 01 to 10 April 2019 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 km per hour at Nkhatabay and Mimosa Meteorological stations to 14

km per hour at Chileka Met station in Blantyre district. More details in Table 1.

1.5 RELATIVE HUMIDITY

During the period 01 to 10 October 2019, air over Malawi was generally dry. Daily average relative humidity values recorded from various weather stations in Malawi had ranged from 45% at Chitipa to 69% at Bvumbwe in Thyolo district. Details as in Table 1.

1.6 SUNSHINE HOURS

Generally medium to long hours of bright sunshine were observed over Malawi during the period 01 to 10 October 2019. The daily values had ranged from 6.3 hours per day at Bvumbwe to 9.2 hours per day at Nkhotakota Meteorological station and consequently the amount of Solar Radiation had ranged from 8.4 to 10.3 cal/cm²/day. For details see Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

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

3. PROSPECTS FOR 2018/2019 RAINFALL SEASON

ENSO-neutral conditions are present. Global models the projecting that the ENSO-neutral conditions are likely to persist throughout the 2019/2020 rainfall season. Based on these expectations, the rainfall forecast for the 2019/2020 is that:

"During October to December 2019, most of the north and northern parts of central areas of the country are expected to receive normal to below

normal rainfall amounts, while most of the south and southern parts of central areas are expected to receive normal to above normal rainfall amounts; During January to March 2020, most of the north and northern parts of central areas of the country are expected to receive above normal rainfall amounts, while southern areas and southern parts of central

areas are expected to receive normal to below normal rainfall amounts.”

4. OUTLOOK FOR 11-20 OCTOBER 2019

Models for short and medium range forecasts indicate that local instability is likely to enhance convective activities mostly over southern and central Malawi during the next ten days of October 2019.

TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 OCTOBER 2019

STATION	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	RAD-TION cal cm ⁻² p/day
KARONGA ADD										
CHITIPA	30.1	18.8	32.3	18.1	12	45	7.7	6.9	5.5	9.4
KARONGA	33.9	21	34.6	19	10	50	7.8	7.4	5.9	9.5
MZUZU ADD										
BOLERO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
MZIMBA	28.8	17.7	33.4	16.1	08	57	8.6	6.8	5.3	9.9
MZUZU	27.8	16.1	30.2	13.4	07	61	7.8	6.2	4.9	9.3
NKHATA BAY	33.1	19.4	35.6	17.7	03	60	7.8	6.8	5.4	9.3
KASUNGU ADD										
KASUNGU	29.9	16.9	33.4	12.4	11	55	7.5	6.5	5.2	9.1
LILONGWE ADD										
CHITEDZE	29.1	17.1	33	16.3	04	61	7.5	6.3	4.9	9.1
DEDZA	25.2	15.8	28.2	13.6	07	71	6.5	5.6	4.3	8.5
K I A	29.2	18.4	32	16.2	08	47	8.3	6.7	5.3	9.7
SALIMA ADD										
NKHOTAKOTA	31.8	21.8	33.9	21	04	56	9.2	7.6	6.0	10.3
SALIMA	32.6	22.9	33.9	21.7	11	55	8.5	7.5	6.0	9.8
MACHINGA ADD										
NTAJA	32.1	20	35.2	16.7	09	58	7.5	6.9	5.5	9.1
MAKOKA	29.2	17.9	32.5	16.1	05	63	7.6	6.3	5.0	9.2
MANGOCHI	33.4	22	37	N/A	04	54	8	7.2	5.7	9.5
MONKEY BAY	32.6	23.5	34	21.4	09	47	7.7	7.3	5.9	9.3
BLANTYRE ADD										
BVUMBWE	32	17	31.1	15	08	69	6.3	6.1	4.9	8.4
CHICHIRI	29.4	21	33.9	17.6	05	61	7	6.4	5.1	8.8
CHILEKA	29.9	18	35.3	16.5	14	52	7.1	6.6	5.3	8.8
MIMOSA	31.3	18.5	36	17.4	03	56	6.5	6.1	4.9	8.4
SHIRE VALLEY ADD										
NGABU	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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