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

Period: 11 – 20 October 2017 | Season: 2017/2018 | Issue No.2

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HIGHLIGHTS

- **Hot and dry weather prevailed over Malawi…**
- **Major agro-activities included land preparation and procurement of farm inputs …**
- **Sporadic rainfall expected over Malawi during the period 21 to 31 October 2017…**

1.0 WEATHER SUMMARY

During the period 01 to 10 October 2017, a local instability had caused sporadic rainfall particularly over central Malawi. As a result a few areas had reported pre-season rainfall that is locally known as Chidzimalupsya. Otherwise hot to very hot and dry weather conditions had prevailed over most areas in Malawi.

1.1 RAINFALL SITUATION

During the second ten days of October 2017 sporadic rainfall was reported over Malawi. However, the amounts were generally less than 10mm. Otherwise reports indicate that Nathenje Agric had received 10.0mm of rainfall, 3.8mm was reported at Michinji Boma, Nkhotakota Met had 2.5mm, Thyolo Met had 1.2mm, Ngabu Met 0.4mm, Bolero received 0.3mm and KIA Met had 0.2mm. Sporadic pre-season rainfall (Chidzimalupsya) is likely to persist over Malawi during the month of October 2017 until major rain bearing systems get established over the country.

1.3 AIR TEMPERATURE

Hot to very hot temperatures were reported over Malawi during the period 11 to 20 October 2017. Mean maximum temperatures had ranged from 29.0°C at Dedza to 36.7°C at Ngabu in Chikwawa district while mean minimum temperatures had ranged from 14.0°C at Mzuzu Airport in Mzimba to 23.9°C at Ngabu in Chikwawa. The highest maximum temperature was recorded at Ngabu (43.5°C) in Chikwawa while the lowest temperature was 10.3°C recorded at Dedza. For more details see Table 1.

1.4 WIND SPEEDS

Mean wind speeds measured at a height of two metres above the ground level across Malawi had ranged from 3.6Km per hour at Nkhata Bay Met to 14.0km per hour at Chitipa Met and Chileka Airport. More details are in Table 1.

1.5 RELATIVE HUMIDITY

During the first ten days of October 2017, air over Malawi was generally dry. Daily average relative humidity values ranged from 34% at Bolero in Rumphi and Ntaja in Machinga to 67% at Ngabu in Chikwawa. Details are on the Table 1.

1.6 SUNSHINE HOURS

During the period 11 to 20 October 2017 durations of sunshine hours per day showed that most areas experienced sunny conditions. Daily averages across Malawi had ranged from 9.4 to 11.5 hours per day. Details are on the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

The major agricultural activities in most parts of Malawi included land preparation and procurement of farm inputs in readiness for the coming 2017/18 main rainfall season.

3. PROSPECTS FOR 2017/18 RAINFALL SEASON

The Sea Surface Temperatures which drive the rainfall patterns of the world including Malawi are in the Neutral El Niño Southern Oscillation (ENSO) phase and climate models are indicating that these neutral conditions are likely to persist during the 2017/2018 rainfall season. Based on neutral ENSO conditions, the rainfall forecast for the 2017/18 season in Malawi is that during the period October 2017 to March 2018 a greater part of the country will experience normal total rainfall amounts.

This means that there is a high chance for average rainfall than there is for reduced or excess rainfall. Thus priority planning for the 2017/18 season in Malawi should be based on expectations of average conditions depending on the climate of the area.

4. OUTLOOK FOR 21 – 31 OCTOBER 2017

Models for short and medium range forecasts indicate that Malawi is likely to continue experiencing sporadic rainfall during the last ten days of October 2017. Farmers are advised to finish land preparations on time to ensure early planting.

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TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 11 TO 20 OCTOBER 2017

ADD/ STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED Km/hour	RH %	SUN SHINE HOURS	Eo mm per day	Et mm per day	RAD-TION calcm-² p/day
KARONGA ADD										
Chitipa	32.9	19.2	35.5	17.0	14.0	40	10.2	13.5	11.8	11.0
Karonga	34.0	22.0	37.5	19.8	6.8	48	10.3	10.8	9.1	11.1
MZUZU ADD										
Bolero	34.8	19.4	38.0	13.8	7.2	34	10.9	11.2	9.4	11.5
Mzimba	33.0	17.9	36.2	12.7	7.9	37	10.5	10.9	9.2	11.2
Mzuzu	30.3	14.0	33.3	10.7	7.6	50	10.3	9.4	7.8	11.1
Nkhata Bay	34.7	18.0	37.7	14.1	3.6	54	10.2	8.9	7.2	11.0
KASUNGU ADD										
Kasungu	33.3	18.4	36.6	12.5	7.2	36	9.4	10.5	8.9	10.5
LILONGWE ADD										
Chitedze	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dedza	29.0	15.5	32.9	10.3	8.3	44	9.5	9.6	8.1	10.5
KIA	31.9	16.9	35.0	11.8	6.8	40	10.4	10.0	8.4	11.1
SALIMA ADD										
Nkhota kota	33.7	22.4	36.5	19.2	5.0	47	10.4	10.2	8.4	11.1
Salima	35.1	22.3	37.1	18.8	9.7	43	11.3	12.6	10.8	11.7
Makoka	32.5	17.4	36.0	12.1	5.4	52	9.6	9.0	7.4	10.5
Mangochi	36.2	21.1	41.0	18.8	5.0	41	11.3	10.6	8.8	11.7
Monkey Bay	35.2	20.3	37.2	18.4	10.4	41	11.3	13.0	11.2	11.7
Ntaja	34.9	22.7	38.6	16.3	9.4	34	10.4	12.7	11.0	11.1
BLANTYRE ADD										
Bvumbwe	30.1	15.6	34.4	10.4	7.6	47	10.0	9.6	8.0	10.7
Chichiri	32.2	19.0	37.0	13.1	7.6	41	9.6	10.3	8.7	10.5
Chileka	34.1	20.4	38.9	16.3	14.0	35	10.1	14.5	12.8	10.8
Mimosa	33.4	17.6	38.3	12.8	5.4	46	10.3	9.5	7.9	10.9
SHIRE VALLEY ADD										
Ngabu	36.7	23.9	43.5	19.5	5.0	67	11.5	10.5	8.6	11.7

Glossary of some terms on this table

- Eo = Potential Evapotranspiration, Et = Actual Evapotranspiration and RH = Mean 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 Kilometers per hour (Km/hr) = mpsx3.6
- N/A – means data was not available at the time of reporting