REPUBLIC OF MALAWI

Department of Climate Change and Meteorological Services

10-day Weather and Agrometeorological Bulletin

In support of national early warning systems

Period: 01 – 10 October 2014 Season: 2014/2015 Issue No.1

Release date: 14 October 2014

HIGHLIGHTS

- **Mostly dry weather persisted over Malawi…**
- **Major on-farm agricultural activity has been land preparation…**
- **Sporadic rains expected towards the end of the period 11-20 October 2014…**

1.0 WEATHER SUMMARY AND IMPACTS

1.1 RAINFALL SITUATION

Mainly dry weather prevailed over most parts of Malawi save for a few places mainly over southern and northern highlands where light and far below long term average rainfall recorded. Such places in the south included Bvumbwe Met (0.9mm) in Thyolo, Mimosa Met (0.9mm) in Mulanje and Makoka Met (0.6mm) in Zomba while in the north 5.1mm was reported at Mzuzu Airport. Mostly dry weather is likely to persist over Malawi in the month of October until major rain bearing systems get established over the country, normally between November and December.

1.3 AIR TEMPERATURE

Warm to hot temperatures prevailed over Malawi during the period 1 to 10 October 2014. Mean maximum temperatures had ranged from 25.6°C at Bvumbwe in Thyolo to 34.1°C at Ngabu while mean minimum temperatures ranged from around 13.4°C at Mzuzu Airport in Mzimba to 21.6°C at Ngabu in Chikwawa. The highest maximum temperature was recorded at Ngabu (42.7°C) in Chikwawa while the lowest temperature was 9.1°C recorded at Chingoni in Dedza district. 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 the country ranged from 1.3m/s at Nkhata Bay Met to 6.1m/s at Chitipa Met. More details are in Table 1.

1.5 RELATIVE HUMIDITY

During the first ten days of October 2014, air over Malawi was still very dry. Daily average relative humidity values ranged from 40% at Kasungu Met to 58% at Mzuzu Airport Met. Details are on the Table 1.

1.6 SUNSHINE HOURS

During the period 1 – 10 October 2014 durations of mean bright sunshine hours across Malawi had ranged from 7 to about 11 hours per day. The highest was recorded at Chitedze in central Malawi while the lowest was experienced over shire highlands at Bvumbwe Met. Details are on the Table 1.

2. AGROMETEOROLOGICAL ASSESSMENT

During the period under review the main on-farm agricultural activity in Malawi has been land preparation in readiness for the coming main rainfall season.

3. PROSPECTS FOR 2014/15 RAINFALL SEASON

The rainfall forecast for the 2014/15 season is generally favourable for agricultural production. Most areas of the Malawi will receive normal rainfall during the season. However, there is a possibility that some areas will experience normal to below normal rainfall amounts that is associated with dry spells.

4. OUTLOOK FOR 11 – 20 OCTOBER 2014

Models for short and medium range forecasts indicate that most parts of Malawi are likely to remain hot and dry. However, a convergence ahead pressures rises is likely to cause sporadic showers and thunderstorms during the last three days of forecast period.

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TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 OCTOBER 2014

ADD/ STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %	SUN SHINE HOURS	Eo mm per day	Et mm per day	RAD-TION cal cm^{-2} p/day
KARONGA ADD										
Chitipa	30.0	18.3	32.7	11.6	6.1	44	10.0	9.5	7.8	10.9
Karonga	32.6	20.2	36.5	18.5	2.0	50	9.5	8.2	6.5	10.6
MZUZU ADD										
Bolero	31.7	17.1	34.3	15.0	1.5	43	9.8	7.6	5.9	10.6
Mzuzu	27.3	13.4	30.0	10.6	2.0	58	9.8	6.9	5.4	10.6
Mzimba	30.4	16.5	33.1	12.1	2.2	44	N/A	N/A	N/A	N/A
Nkhata Bay	33.1	17.6	36.1	14.6	1.3	56	N/A	N/A	N/A	N/A
KASUNGU ADD										
Kasungu	31.6	17.4	34.1	13.5	1.4	40	N/A	N/A	N/A	N/A
LILONGWE ADD										
KIA	29.4	15.1	31.7	10.8	2.2	46	8.6	7.1	5.7	9.8
Chitedze	30.3	14.9	33.4	11.8	1.5	47	10.7	7.5	5.8	11.2
Dedza	26.6	13.9	28.9	9.1	2.7	48	N/A	N/A	N/A	N/A
SALIMA ADD										
Salima	32.2	18.7	35.2	15.6	3.5	50	10.0	8.4	6.8	10.8
Nkhota kota	30.1	20.7	34.7	18.2	3.2	45	10.1	8.9	7.2	10.8
MACHINGA ADD										
Monkey Bay	32.1	20.5	35.3	16.9	3.1	48	9.5	8.5	6.9	10.4
Mangochi	33.1	18.9	38.5	15.0	2.4	52	8.2	7.7	6.2	9.6
Ntaja	30.6	18.3	36.7	14.4	2.8	50	N/A	N/A	N/A	N/A
Makoka	28.3	16.1	34.4	11.6	1.5	55	7.4	6.4	5.1	9.0
BLANTYRE ADD										
Bvumbwe	25.6	15.2	34.2	10.5	2.8	51	6.6	6.4	5.2	8.5
Chichiri	27.3	16.1	35.5	11.0	2.4	57	N/A	N/A	N/A	N/A
Chileka	29.5	18.6	37.4	14.5	5.9	47	8.1	8.7	7.3	9.5
Mimosa	30.8	13.9	38.8	12.2	1.6	56	N/A	N/A	N/A	N/A
SHIRE VALLEY ADD										
Ngabu	34.1	21.6	42.7	17.4	3.6	46	11.0	9.5	7.8	11.3

Glossary of some terms on this table

- E_O = Potential Evaporation and Mean Temperature =(MAX + MIN)/2
- E_T = Potential Evapotranspiration and RH = Relative Humidity
- ABS Max = Absolute Maximum Temperature which is the highest temperature for the period
- ABS Min = Absolute Minimum Temperature which is the lowest temperature for the period
- To convert Meters Per Second (mps) to Kilometers per hour (Km/hr) = mpsx3.6