



REPUBLIC OF MALAWI

Ministry of Natural Resources, Energy and Mining  
Department of Climate Change and Meteorological Services

## 10-day Weather and Agrometeorological Bulletin

*In support of national early warning systems and food security*



Be wise be weather-wise

Period: 01 – 10 October 2015

Season: 2015/2016

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### HIGHLIGHTS

- Hot and dry weather covered most parts of Malawi...
- Land preparation was a main on-farm agricultural activity...
- Sporadic rainfall expected in southern Malawi from 18 October 2015...

### 1.0 WEATHER SUMMARY

During the period 01 to 10 October 2015, a local instability had caused sporadic rain showers and thunderstorms over some parts of Malawi. As a result a few areas had received the pre-season rains that are locally known as Chidzimalupsya during the first 2 to 3 days of October 2015. Otherwise hot and dry weather had persisted in most areas.

#### 1.1 RAINFALL SITUATION

During the period under review a few places that received the pre-season rains with significant rainfall amounts in the southern Malawi included 30.1mm recorded at Ntaja in Machinga, 14.3mm at Nchalo in Chikwawa, 10.6mm at Makoka in Zomba, 7.7mm at Chancellor College in Zomba and 5.3mm reported at Masambanjati in Thyolo while in central Malawi 10.5mm was reported at Lifuwu Research Station in Salima, 8.0mm was reported at Dedza Agric, 4.0mm was recorded at Madisi in Dowa and Chongoni in Dedza and in northern Malawi 2.4mm was received at Mzimba Met. Sporadic rains are expected to persist over Malawi during 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 2015. Mean maximum temperatures had ranged from 26.7°C at Dedza Met to 38.9°C at Ngabu Met in Chikwawa while mean minimum temperatures had ranged from 14.6°C at Mzuzu Airport in Mzimba to 25.1°C at Monkey Bay in Mangochi. The highest maximum temperature was recorded at Ngabu (40.8°C) in Chikwawa while the lowest temperature was 11.2°C recorded at Mzuzu Airport in Mzimba 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 2.5Km per hour at Nkhata Bay Met to 18km per hour at Chitipa Met. More details are in Table 1.

#### 1.5 RELATIVE HUMIDITY

During the first ten days of October 2015, air over Malawi was still very dry. Daily average relative humidity values ranged from 33% at Ngabu Met to 51% at Chongoni in Dedza. Details are on the Table 1.

#### 1.6 SUNSHINE HOURS

During the period 1 to 10 October 2015 durations of mean bright sunshine hours across Malawi had ranged from 9.2 over highlands to 10.5 hours per day. over low altitude areas. The longest duration of sunshine hours was recorded over Shire Valley and along the lakeshore areas while the shortest was registered over highlands due local cloudiness. 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 2015/16 main rainfall season.

### 3. PROSPECTS FOR 2015/16 RAINFALL SEASON

The rainfall forecast for the 2015/16 season is that generally favourable amounts of rainfall are expected over Malawi during the 2015/2016 rainfall season. Most parts of Malawi are likely to receive normal to above normal rainfall amounts during the season. However, a few areas particularly in the Shire Valley are likely to receive low rainfall amounts towards the end of season.

### 4. OUTLOOK FOR 11 – 20 OCTOBER 2015

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

**TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 OCTOBER 2015**

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 <sup>-2</sup> p/day
<b>KARONGA ADD</b>										
Chitipa	31.6	20.2	32.8	18.9	18.0	44	9.3	9.2	7.6	10.5
Karonga	34.9	22.1	36.5	21.0	7.9	43	9.9	8.8	7.1	10.9
<b>MZUZU ADD</b>										
Bolero	32.6	21.2	34.4	19.9	5.4	43	10.5	8.2	6.5	11.1
Mzimba	30.4	19.0	32.5	17.1	7.2	44	9.6	7.8	6.2	10.6
Mzuzu	29.2	14.6	30.6	11.2	6.1	45	10.4	7.3	5.7	11.0
Nkhata Bay	31.6	17.9	36.3	16.2	2.5	44	9.7	7.3	5.7	10.5
<b>KASUNGU ADD</b>										
Kasungu	32.6	17.8	33.9	13.2	9.7	38	10.0	8.3	6.6	10.8
<b>LILONGWE ADD</b>										
Chitedze	31.9	17.4	33.3	16.4	5.0	43	10.0	7.6	6.0	10.7
Dedza	26.7	17.0	27.9	16.2	11.9	51	9.7	7.6	6.1	10.6
KIA	30.7	17.6	32.2	15.5	7.6	40	9.7	7.7	6.1	10.6
<b>SALIMA ADD</b>										
Nkhota kota	33.2	22.0	34.1	20.5	5.8	46	10.4	8.3	6.6	11.0
Salima	34.9	23.2	36.0	21.3	6.8	41	9.9	8.5	6.8	10.7
<b>MACHINGA ADD</b>										
Makoka	31.5	19.0	33.3	17.3	4.7	46	10.0	7.7	6.0	10.7
Mangochi	30.6	23.2	38.0	22.3	4.0	43	9.4	7.7	6.1	10.4
Monkey Bay	35.7	25.1	36.5	22.5	7.6	37	10.5	9.2	7.4	11.1
Ntaja	34.4	20.9	35.8	17.2	8.3	47	9.2	8.3	6.7	10.2
<b>BLANTYRE ADD</b>										
Bvumbwe	30.9	18.9	33.2	18.1	6.5	44	9.3	7.6	6.0	10.2
Chichiri	32.5	19.6	34.0	18.5	6.5	37	9.5	7.8	6.2	10.4
Chileka	34.3	22.2	36.0	20.5	13.0	36	9.7	9.2	7.6	10.5
Mimosa	32.0	18.3	36.7	16.7	6.1	42	9.5	7.7	6.1	10.4
<b>SHIRE VALLEY ADD</b>										
Ngabu	38.9	23.2	40.8	21.6	12.6	33	10.5	10.1	8.4	11.0

**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 Kilometers per hour (Km/hr) = mpsx3.6