



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: 21 – 31 October 2016

Season: 2016/2017

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## HIGHLIGHTS

- **Pre-season rainfall spread to more areas in Southern and Central Malawi...**
- **Land preparation and mobilization of farm inputs were still main activities...**
- **Sporadic rainfall to persist during first ten days of November 2016...**

## 1.0 WEATHER SUMMARY

During the last ten days of October 2016, an interaction between fairly moist and unstable easterly winds and westerly winds had created local instability over southern and central Malawi. As a result many areas in southern and central Malawi had registered locally heavy pre-season rainfall that is locally known as Chidzimalupsya.

### 1.1 RAINFALL SITUATION

During the period 21 to 31 October 2016 many areas in southern and central Malawi had received significant rainfall amounts. For instance Nathenje Agric in Lilongwe had registered 48mm of rainfall in one day, Nankumba in Mangochi had 42mm, Mulanje Agric 39mm, Naminiwi Agric in Phalombe 37mm, Kamuzu International Airport and Mtakataka Airwing and around 27mm and Kasiya Agric in Lilongwe had recorded 21mm. Sporadic rains are likely to persist over Malawi until major rain bearing systems get established, usually between mid -November and December.

### 1.3 AIR TEMPERATURE

During the last ten days of October 2016, most areas in Malawi had experienced hot to very temperatures. Very hot temperatures were confined to some lakeshore areas and in Shire Valley. Mean maximum temperatures had ranged from 29°C over highlands to 36°C in low altitude areas while mean minimum temperatures had ranged from 14°C at Mzuzu Airport in Mzimba to 23.6°C at Monkey Bay in Mangochi. The highest maximum temperature was recorded at Monkey Bay (39.5°C) in Mangochi while the lowest temperature was 11.2°C recorded at Mzuzu Airport. For more details see Table 1.

### 1.4 WIND SPEEDS

During the period 21 to 31 October 2016 mean wind speeds measured at a height of two metres above the ground level across Malawi had ranged from 2.9Km per hour at Nkhata Bay Met to 16.9km per hour at Chitipa Met. More details are in Table 1.

### 1.5 RELATIVE HUMIDITY

During the last ten days of October 2016, air over Malawi had remained relatively dry. Daily average relative humidity values ranged from 36% at Chileka to 56% at Monkey Bay. Details are on the Table 1.

### 1.6 SUNSHINE HOURS

During the period 21 to 31 October 2016 durations of mean bright sunshine hours across Malawi had ranged from 6.3 to 11.3 hours per day. The longest duration of sunshine hours was recorded at Makoka in Zomba while the shortest was registered at Nkhota kota Met. Details are on the Table 1

## 2. AGROMETEOROLOGICAL ASSESSMENT

During the period 21 to 31 October 2016 the main agricultural activities were land preparation in readiness for the start of the main rainfall season and mobilization of farm inputs. The pre-season rainfall experienced so far has encouraged farmers to speed up land preparation.

## 3. PROSPECTS FOR 2016/17 RAINFALL SEASON

The rainfall forecast for the 2016/2017 season in Malawi is that during the period October to December 2016, the greater part of southern half of Malawi is likely to receive normal to above normal rainfall amounts while the northern half is expected to receive normal to below normal amounts while during the period January to March 2017 the greater part of Malawi is expected to experience normal to above normal rainfall amounts. In view of this forecast farmers are advised to finish land preparations on time to ensure timely planting, include water harvesting structures where ridging has been done, ensure adequate vegetative soil cover where conservation agriculture is practised, plant other drought tolerant food crops such as cassava, sweet potatoes, sorghum and millet, in the early days of the rainy season, plant early maturing crop varieties and apply adequate manure to improve soil moisture retention

## 4. OUTLOOK FOR 01– 10 NOVEMBER 2016

Models for short to medium range weather forecasts show further improvement in rainfall performance over Malawi during the first ten days of November 2016.

**TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 21 TO 31 OCTOBER 2016**

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	19.0	32.8	15.4	16.9	40	9.4	9.1	7.5	10.5
Karonga	34.3	21.9	35.7	19.5	6.8	42	9.8	8.6	6.9	10.8
<b>MZUZU ADD</b>										
Bolero	32.9	19.8	34.1	15.0	6.5	39	9.6	8.2	6.5	10.7
Mzimba	30.6	17.8	32.7	13.6	6.1	39	9.4	7.7	6.1	10.6
Mzuzu	29.3	14.1	30.3	11.2	6.1	44	10.1	7.4	5.8	11.0
Nkhata Bay	35.3	18.0	36.6	15.8	2.9	44	9.6	7.8	6.1	10.7
<b>KASUNGU ADD</b>										
Kasungu	31.7	19.3	33.0	16.6	14.0	40	9.3	8.8	7.2	10.5
<b>LILONGWE ADD</b>										
Chitedze	32.2	17.4	32.2	16.7	5.0	46	9.2	7.5	6.0	10.4
Dedza	28.7	16.7	29.5	14.8	11.9	51	9.0	7.7	6.2	10.2
KIA	31.0	18.0	32.0	15.8	7.6	39	9.9	8.0	6.3	10.8
<b>SALIMA ADD</b>										
Nkhota kota	34.2	22.7	35.0	20.8	4.7	49	6.3	7.3	6.0	8.5
Salima	35.0	22.8	36.0	21.0	6.5	41	10.4	8.8	7.1	11.2
<b>BLANTYRE ADD</b>										
Makoka	35.6	21.8	36.6	19.3	8.6	37	9.9	9.0	7.2	10.8
Mangochi	36.4	21.3	34.5	16.8	5.0	48	11.3	9.0	7.1	11.7
Monkey Bay	34.4	23.6	39.5	22.6	3.6	42	10.5	8.6	6.8	11.2
Ntaja	35.3	23.9	36.4	18.9	8.3	56	10.4	9.3	7.5	11.2
<b>SHIRE VALLEY ADD</b>										
Ngabu	N/A	N/A	N/A	N/A	N/A	40	N/A	N/A	N/A	N/A

**Glossary of some terms on this table**

- Eo = Potential or reference 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