



Government of Malawi  
Ministry of Natural Resources, Energy  
and Mining

# Malawi 10-day Weather and Agrometeorological Bulletin

*"Produced in support of National Early Warning Systems and Food Security"*



Be wise be weather-wise  
Department of Climate Change and  
Meteorological Services

Period: 01 – 10 November 2018

Season: 2018/2019

Issue No.4

Release date: 13 November 2018

## HIGHLIGHTS

- **Dry conditions persisted over Malawi during 01 to 10 November 2018...**
- Major agro-activities included land preparation and procurement of farm inputs ...
- **Sporadic rainfall still expected over Malawi during 11 to 20 November 2018...**

## 1.0 WEATHER SUMMARY

During the first ten days of November 2018, a weak convergence ahead of pressures rises causes few brought localized light to moderate pre-season rainfall over Malawi.

### 1.1 RAINFALL SITUATION

During the period 01 to 10 November 2018 localised light to moderate pre-season rainfall was received over Malawi. Very few stations that reported light to moderate rainfall amounts included Lujeri Tea Estate in Mulanje which had received 79mm, Mulanje Agric reported 40mm, Mimoso Met also in Mulanje district had 31mm, Mzimba Met 10mm, Thyolo had 9mm, Satemwa Tea Estate had 7mm and Chizunga Factory recorded 2mm. Otherwise there were a lot more stations which had received rainfall amounts of less than 2mm. Erratic pre-season rainfall (Chidzimalupsya) is likely to persist over Malawi until major rain bearing systems get established over the country.

### 1.3 AIR TEMPERATURE

Hot temperatures were observed over Malawi during the first ten days of November 2018. Mean maximum temperatures had ranged from 25°C over Dedza. to 36°C at Ngabu in Chikwawa district while average minimum temperatures had ranged from 16°C at Dedza to 24°C at Mangochi. The highest maximum temperature was 42°C and was recorded at Ngabu in Shire Valley while the lowest temperature was 11°C recorded at Makoka. For more details see Table 1.

### 1.4 WIND SPEEDS

During the first ten days of November 2018, light to moderate wind speeds were observed over Malawi. Mean wind speeds measured at a height of two metres above the ground level across Malawi had ranged from 5Kmp per hour at Chitedze to around 16km per hour at Chitipa. More details are in Table 1.

### 1.5 RELATIVE HUMIDITY

During the first ten days of November 2018, air over Malawi was still dry. On average daily relative humidity values ranged

from 41% at Monkey Bay to 60% at Mzuzu Details are on the Table 1.

### 1.6 SUNSHINE HOURS

During the period 01 to 10 November 2018 durations of bright sunshine hours across Malawi had ranged from 6.8 to 10.3 hours per day and consequently the amount of Solar Radiation had ranged from 8.9 to 11.1 cal/cm<sup>2</sup>/day. Details are on the Table 1.

## 2. AGROMETEOROLOGICAL ASSESSMENT

During the period 01 to 10 November 2018, localized areas particularly over southern highlands had received significant rainfall amounts. Otherwise dry conditions were experienced over most parts of Malawi. The main agricultural activities included land preparation in readiness for the start of the 2018/2019 main rainfall season and mobilization of farm inputs. The pre-season rainfall experienced so far has encouraged farmers to speed up land preparation in readiness for the effective start of the main rainfall season.

## 3. PROSPECTS FOR 2018/19 RAINFALL SEASON

Global models are projecting the development of weak to moderate El Nino conditions between September and November 2018. Therefore, the rainfall forecast for the 2018/19 season in Malawi is that: **"During the period October 2018 to March 2019, most of the northern areas spilling over into north of central areas of the country are expected to receive normal to above normal rainfall amounts, while most of the southern areas spilling over into south of central areas of the country are expected to receive normal to below normal rainfall amounts."**

In view of this forecast, the main agriculture extension messages for farmers during the 2018/2019 crop growing season include:

- finishing land preparations on time to ensure timely planting, including water harvesting structures where ridging has been done,
- ensure adequate vegetative soil cover where conservation agriculture is practised,
- plant 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

- finish land preparations on time to ensure timely planting

#### 4. OUTLOOK FOR 11– 20 NOVEMBER 2018

Models for medium range forecasts indicate that Malawi is likely to continue experiencing mostly dry weather conditions during the second ten days of November 2018. Farmers are advised to consider finalizing land preparations and procurement of farm inputs to ensure planting with first effective rains during the 2018/2019 crop growing season.

**TABLE 1: AGROMETEOROLOGICAL PARAMETERS FOR 01 TO 10 NOVEMBER 2018**

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	31.0	19.9	32.9	17.9	15.8	50	9.0	8.7	7.1	10.3
Karonga	34.3	22.9	38.3	21.3	7.6	47	9.3	8.7	7.0	10.5
<b>MZUZU ADD</b>										
Bolero	33.5	21.3	36.3	17.3	6.1	42	8.5	8.0	6.4	10.0
Mzimba	30.1	17.3	33.5	16.0	7.9	50	9.3	7.7	6.1	10.5
Mzuzu	28.1	16.3	30.5	13.3	7.9	60	9.0	7.2	5.7	10.3
Nkhata Bay	33.8	19.5	36.4	17.0	5.4	53	10.0	8.2	6.6	11.0
<b>KASUNGU ADD</b>										
Kasungu	30.0	21.7	32.0	17.0	10.1	50	9.4	8.4	6.8	10.6
<b>LILONGWE ADD</b>										
Chitedze	30.3	17.5	33.4	14.8	5.0	49	9.0	7.4	5.8	10.3
Dedza	26.4	15.8	28.9	13.1	7.9	50	8.5	7.0	5.6	10.0
KIA	30.0	17.2	32.5	14.5	8.3	46	8.9	7.7	6.1	10.2
<b>NTAJA ADD</b>										
Nkhota kota	33.1	20.5	35.6	19.6	5.8	50	9.7	8.3	6.7	10.8
Salima	32.3	23.0	35.9	21.6	13.3	50	10.3	9.5	7.8	11.1
<b>BLANTYRE ADD</b>										
Bvumbwe	26.5	17.0	32.1	12.4	9.4	59	8.0	7.0	5.6	9.6
Chichiri	28.8	17.1	33.5	13.0	8.3	49	8.3	7.3	5.9	9.8
Chileka	31.6	19.8	36.5	16.0	15.1	45	8.2	8.7	7.2	9.8
Mimosa	29.9	17.0	36.0	13.5	5.0	52	8.5	7.1	5.7	10.0
<b>SHIRE VALLEY ADD</b>										
Ngabu	35.6	22.7	42.0	19.8	5.8	54	10.0	8.8	7.1	10.9

**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).