

# 10-Day Rainfall & Agromet Bulletin

Department of Meteorological Services



Period: 11 – 20 November 2003

Season: 2003/2004 Release date: 27 November 2003 Issue No.5

# HIGHLIGHTS

- Sporadic rains continue; locally heavy in parts of Shire Highlands...
- Farmers intensify land preparation in readiness for planting rains...
- More areas to receive rains from the last days of November...

# **1. WEATHER SUMMARY**

#### **1.1 RAINFALL**

The second 10-days of November 2003 continued to be hot and unusually dry over most areas except few places over Shire highlands in southern region where local heavy thunderstorms were experienced between 16<sup>th</sup> and 20<sup>th</sup> November. During the period, 73mm was reported at Naminjiwa Agriculture in Phalombe district while Fortlister in the same district registered 58mm. Sporadic light rains continued elsewhere.

#### **1.2 MEAN AIR TEMPERATURE**

Hot conditions continued to be experienced in the country with very hot air temperatures confined to low altitudes areas (Lakeshore and Shire valley). For instance daily average maximum air temperatures of 37°C were observed at Ngabu and Nchalo in Shire Valley. The ten-day average minimum temperatures ranged from 16°C at Bvumbwe to 25°C at Ngabu. (Table 1).

### **1.3 MEAN SUNSHINE HOURS**

Most parts of Malawi experienced bright sunshine. Longer sunshine hours durations ranged from 10 at Lilongwe International Airport to 11.6 hours per day at Karonga.

#### **1.4 MEAN DAILY WIND SPEEDS**

Wind speeds oobserved at height of 2 meters above the ground were in the range of 2-5 metres per second over the country. Chitipa recorded the highest mean value of 5.0m/s followed by Ngabu which recorded 4.2m/s (Table 1).

## **1.5 MEAN RELATIVE HUMIDITY**

During the period under review, daily average relative humidity values indicated a gradual increase over most areas. This may be attributed to the pre- season rains. The daily average relative humidity ranged from 43% to 67%.

#### 2. AGROMETEOROLOGICAL ASSESSMENT

According to 2003/2004 rainfall forecast for Malawi, favourable rains for crop production are expected. The onset of main rains is expected during November 2003 over south and central areas, but stretching into early December over some parts of northern Malawi. So far there has been a slight delay in onset of the main rains particularly for the south and part of central Malawi where main rains normally start around mid November. However, by 20th of November most areas of Malawi were still very dry save for very few pockets over Shire Highlands in southern Malawi where useful rains to initiate planting of crops have been reported. In general the rains received so far have managed to propel farmers to speed up land preparation in readiness for planting rains which according to latest information should be expected from the last days of November to early December. Indications are that we might have a uniform onset of mains this season particularly if the main rains with start with establishment of both Congo air mass and Inter Tropical convergence Zone over Malawi.

#### **3. FORECAST FOR 21 – 30** NOVEMBER 2003

Meanwhile, the weather over Malawi is expected to be influenced by inland surface trough from the west and a convergence ahead of pressure surge in the last three days of November 2003. Therefore, more areas are likely to receive rains particularly towards the end of the forecast period.

TABLE 1:AGROMETEOROLOGICAL PARAMETERS DEKAD 2 OF NOVEMBER 2003										
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- <sup>2</sup> p/day
BVUMBWE	28.2	16.3	32.4	14.0	2.5	60	9.3	7.5	5.9	10.6
BOLERO	29.7	22.3	34.6	22.0	2.5	45	N/A	5.5	4.8	N/A
CHICHIRI	28.1	18.0	32.0	15.0	2.5	61	8.8	7.4	5.9	10.2
CHILEKA	31.7	21.3	35.7	17.5	3.9	55	8.3	8.5	7.0	9.9
CHITEDZE	31.2	18.1	33.0	17.0	1.9	49	N/A	5.0	4.3	N/A
CHITIPA	31.9	17.5	32.7	16.9	5.0	43	6.2	8.2	6.9	8.5
DEDZA	26.2	16.5	28.0	14.4	2.0	60	N/A	4.4	3.7	4.5
KASUNGU	31.4	19.9	32.9	19.3	3.5	50	11.4	9.3	7.4	11.9
KARONGA	35.5	24.3	37.2	23.0	31.0	49	11.6	22.1	20.2	12.0
LIA	30.5	17.0	32.4	14.0	2.6	53	10.0	8.1	6.4	11.0
ΜΑΚΟΚΑ	29.2	18.4	32.4	15.9	1.9	62	9.0	7.5	5.9	10.4
MONKEY BAY	33.6	N/A	35.9	N/A	2.8	50	N/A	4.6	4.0	N/A
MZIMBA	30.4	19.4	32.7	18.3	1.8	53	N/A	4.9	4.2	N/A
MZUZU	28.9	15.5	31.0	13.0	2.4	63	N/A	4.5	3.8	N/A
NGABU	37.0	24.6	41.5	18.8	4.2	51	10.4	10.5	8.7	11.3
NKHATA BAY	34.0	20.3	36.2	18.3	N/A	56	10.8	8.1	6.3	11.5
ΝΚΗΟΤΑΚΟΤΑ	32.4	23.8	34.0	23.0	N/A	54	N/A	4.6	3.9	N/A
SALIMA	33.5	24.3	36.4	23.1	2.5	51	10.7	9.3	7.5	11.5
THYOLO	30.7	18.8	34.6	16.0	1.9	66	N/A	4.6	3.9	N/A
NCHALO	37.0	23.2	39.5	21.5	3.0	67	10.1	8.7	7.0	11.0

#### Glossary of some terms on this table

- $E_0$  = Potential Evaporation
- $E_T$  = 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).
- N/A means data is not available