10-Day Rainfall & Agromet Bulletin

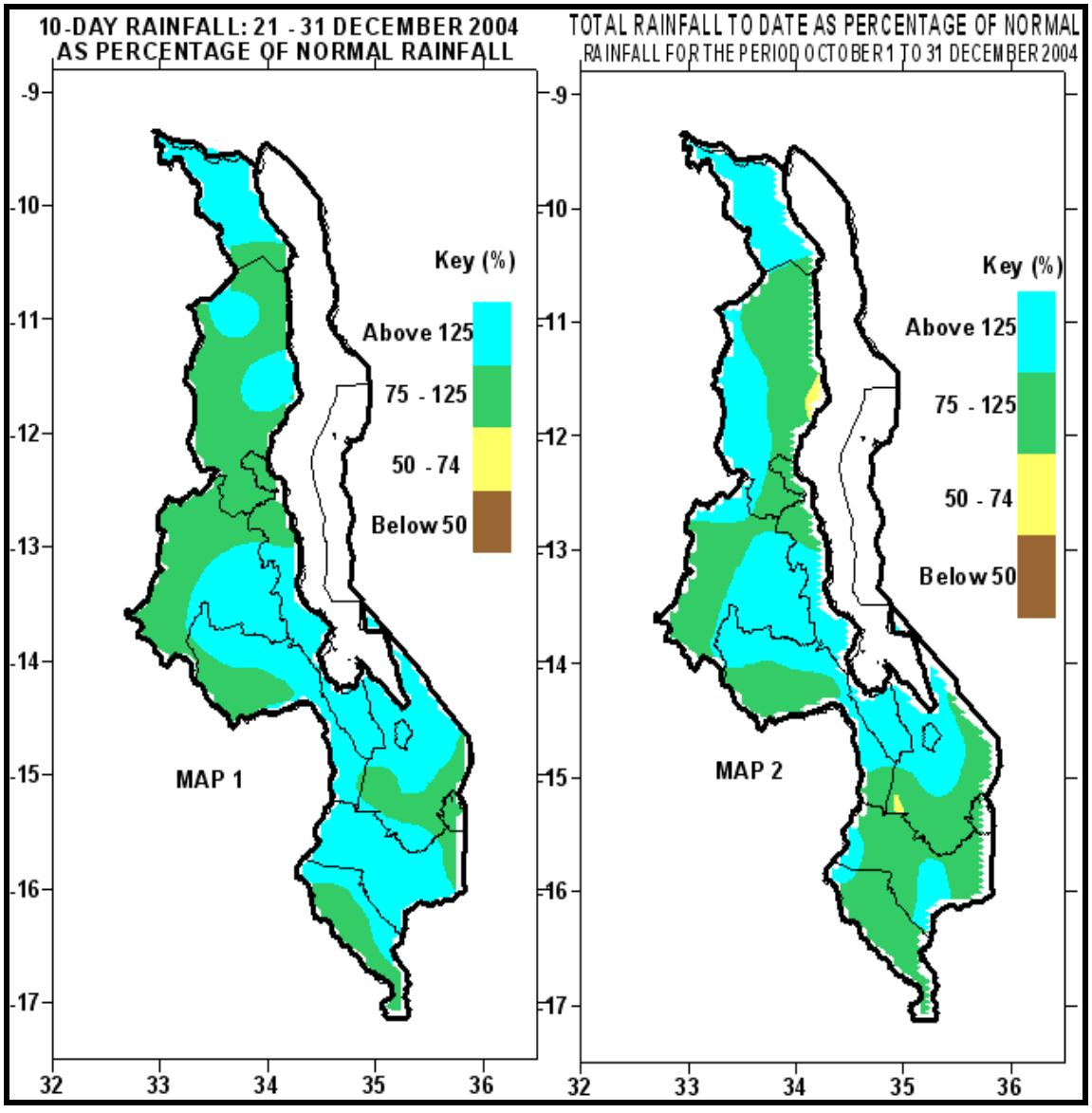
Department of Meteorological Services

Period: 21 – 31 December 2004 | Season: 2004/2005 | Issue No.9

Release date: 6 January 2005

HIGHLIGHTS

- **Moderate to heavy rains experienced in most parts of Malawi …**
- **Armyworms devour 500Ha of Maize in Karonga and Chitipa…**
- **Widespread rains to continue during the first 10-days of January 2005…**



All inquiries should be addressed to: The Director of Meteorological Services, P.O. Box 2, Chileka, MALAWI
Tel: (265) 1 692 312/333/320 Fax: (265) 1 692 329 E-mail: metdept@metmalawi.com Homepage: www.metmalawi.com

1. WEATHER SUMMARY

1.1 RAINFALL

In the last 10-days of December 2004 Congo Airmass and Inter-Tropical Convergence Zone remained active over Malawi. As a result widespread rains and scattered thunderstorms were maintained over the country.

During the period under discusion most areas registered normal to above normal rainfall 10-day rainfall totals. The highest rainfall was received over southern Malawi. Areas which received total 10-day rainfall of above 200mm included Blantyre, Thyolo, Mulanje Zomba and Mangochi districts. Thyolo Met recorded 257.8mm, Chichiri Met in Blantyre 246.3mm, Mulanje Boma 240.8mm, Mimosa Met 231.5mm, and Monkey Bay 224.9mm. Between 7 and 9 rainy days were experienced over most parts of the country **(Table 1).**

A combination of heavy rains, hail storm and strong winds around Christmas damaged houses and school blocks in Karonga district. Malawi News Agency (MANA) reported that most of the houses and school blocks had their roofs blown off because of hail storm and strong winds.

Map 2 shows the performance of cumulative rainfall from 1stOctober 2004 up to 31 December 2004. From the map, most areas of Malawi have received normal (75 – 125%) to above normal (Above 125%) rainfall with very few pockets of below normal rainfall.

1.2 MEAN AIR TEMPERATURE

Mean maximum temperatures indicate warm to hot weather prevailed over the country. Daily average maximum temperature ranged from 22.4°C at Dedza to 30.3°C at Ntaja in Machinga district. The highest absolute maximum air temperature was 32.2°C, registered at Karonga while the lowest absolute minimum temperature was14.6°C reported at Bvumbwe.

1.3 MEAN DAILY WIND SPEEDS

At 2 meters height, observed wind speeds remained light. The values ranged from 0.3m/s (1.08km/hr) to 2.9m/s (10.44km/hr) at Chitedze and Nkhotakota respectively (See Table 2 for more details).

1.4 MEAN RELATIVE HUMIDITY

During the last 10-day os December, over Malawi mean relative humidity values continued to increase. The daily average relative humidity values ranged from 77% at Karonga to 90% at Nkhotakota. On average the country had a relative humidity of 84%, indicating a humid atmosphere.

2. AGROMETEOROLOGICAL ASSESSMENT

Good rains, favourable for agriculture production continued over most areas of the country in the last 10-days of December 2004. Crops were reported in good condition raising prospects of a good season particularly where ferlizer has been applied. From rainfall point of view, this season has so far performed better than last season. According to reports the only problem this season has been that in some parts of the country fertilizer has not been available on time and the price has not been stable. Generally crops ranged from early to advanced vegetative stages. Early maturing hybrid maize varieties that were planted mid November in some parts of Malawi particularly in low altitude areas have reached tasselling stage. Weeding and fertilizer application were still major farming activities across the country. Planting of crops is still going on in most parts of the country.

Malawi News Agency (MANA) reported that army warms devoured about 500Ha of Maize in Karonga and Chitipa districts. Reports indicated that 235.04 Ha of Maize were destroyed in Chitipa and 222 Ha. in Karonga. Of the two districts the situation was more critical in Chitipa. However, after spraying chemicals the situation in the two districts was later reported to be under control.

3. SEASONAL OUTLOOK

The 2004/05 seasonal forecast update for January to March 2005 indicate improved rainfall prospects for Malawi. High rainfall intensities that would result in floods and localized dry spells of different magnitudes are expected to occur within the same period.

4. FORECAST FOR 1 – 10 JANUARY 2005

Meanwhile weather systems indicate that Inter-Tropical Convergence Zone and Congo Air will still be active over the country. Therefore generally widespread rains which will be locally heavy are expected to occur in most parts of the country during the first 10-days of January 2005.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 3 OF DECEMBER 2004: PERIOD 21 – 31

STATION NAME	DEKADAL TOTAL RAINFALL	DEKADAL NORMAL	DEKADAL TOTAL AS %	TOTAL TO DATE	NORMAL TO DATE	TOTAL TO DATE AS %	RAINY DAYS
SOUTHERN REGION	mm	mm	NORMAL	mm	mm	NORMAL	
Balaka Township	37.9	73.1	52	244.7	297.1	82	5
Bvumbwe Met.	147.4	71.6	206	495.6	345.7	143	10
Chancellor College	142.2	106.5	134	544.6	441.9	123	8
Chichiri Met.	246.3	73.4	336	522.2	352.8	148	9
Chikwawa Boma	69.7	58.3	120	263.9	236.3	112	4
Chileka Airport	112.7	64.8	174	309.1	301.9	102	8
Kasinthula Res. Stn.	79.0	53.0	149	315.3	228.6	138	6
Liwonde Township	76.7	55.2	139	359.6	236.8	152	8
Lujeri Tea Estate	130.5	125.3	104	639.4	678.2	94	10
Mangochi Met.	86.1	67.1	128	402.6	251.0	160	6
Mimosa Met.	231.5	95.7	242	508.2	474.4	107	10
Monkey Bay Met.	224.9	94.6	238	473.6	292.3	162	7
Mulanje Boma	240.8	95.7	252	582.8	524.1	111	8
Mwanza Boma	128.3	75.9	169	477.7	324.9	147	6
Nchalo Sucoma	43.6	45.4	96	244.6	225.6	108	7
Ntaja Met.	86.2	64.4	134	351.0	276.6	127	9
Toleza Farm	115.6	65.0	178	378.3	262.9	144	8
Thyolo Boma	198.4	96.5	206	498.6	376.0	133	7
Thyolo Met	257.8	84.4	305	640.8	386.7	166	7
CENTRAL REGION							
Chitedze Met.	89.0	71.5	124	391.4	292.2	134	9
Dedza Met	95.5	77.6	123	220.6	282.1	78	8
Dowa Agric	67.2	68.2	99	412.4	234.8	176	8
Dwangwa Sugar Corp.	68.3	88.7	77	328.9	340.4	97	9
Dzonzi Forest	145.5	77.8	187	376.1	318.5	118	6
K.I.A. Met.	136.4	63.6	214	522.2	239.0	218	11
Lifuwu	184.0	104.3	176	518.7	305.2	170	8
Mlangeni Njolomole	136.6	72.3	189	377.6	290.0	130	9
Nkhotakota Met	64.9	93.4	69	351.0	317.3	111	9
Ntcheu - Nkhande	106.8	93.9	114	562.6	331.4	170	9
Ntchisi Boma	177.3	74.7	237	535.5	241.1	222	11
Salima Met	182.0	86.9	209	497.2	295.7	168	8
Dedza RTC	150.4	72.5	207	404.4	271.5	149	11
NORTHERN REGION							
Chikangawa forest	138.1	85.6	161	415.1	304.6	136	10
Chitipa Met	144.0	102.7	140	484.8	303.5	160	7
Karonga Met.	107.4	70.9	151	421.5	242.6	174	8
Mzimba Met	76.4	74.4	103	455.5	262.3	174	8
Mzuzu Met.	113.3	82.6	137	398.1	362.3	110	9

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 3 OF DECEMBER 2004

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	26.3	18.1	30.2	14.6	1.1	83
CHICHIRI	26.3	18.5	27.4	16.9	0.6	81
CHILEKA	28.8	21.0	30.9	20.0	0.1	81
NTAJA	30.3	23.3	30.5	20.0	1.8	82
CHITEDZE	25.4	18.8	28.9	18.2	0.3	87
CHITIPA	26.3	17.5	27.0	16.6	1.8	81
DEDZA	22.4	16.3	25.5	15.5	1.0	92
KARONGA	30.1	22.2	32.2	20.1	1.3	77
K I A	25.0	17.7	28.5	16.2	1.1	88
MANGOCHI	30.0	22.3	32.0	20.5	0.9	80
MIMOSA	30.3	20.0	32.1	18.3	1.0	81
MONKEY BAY	28.0	22.6	30.3	21.3	1.4	83
MZIMBA	25.6	17.4	28.1	16.6	1.1	83
MZUZU	25.9	17.5	28.0	16.7	1.8	83
NKHOTAKOTA	30.0	23.8	30.6	20.9	2.9	90
SALIMA	28.0	21.2	30.1	19.9	1.7	85
THYOLO	27.7	19.4	29.5	17.2	1.1	83

Glossary of some terms on this table

- 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