10-Day Rainfall & Agromet Bulletin

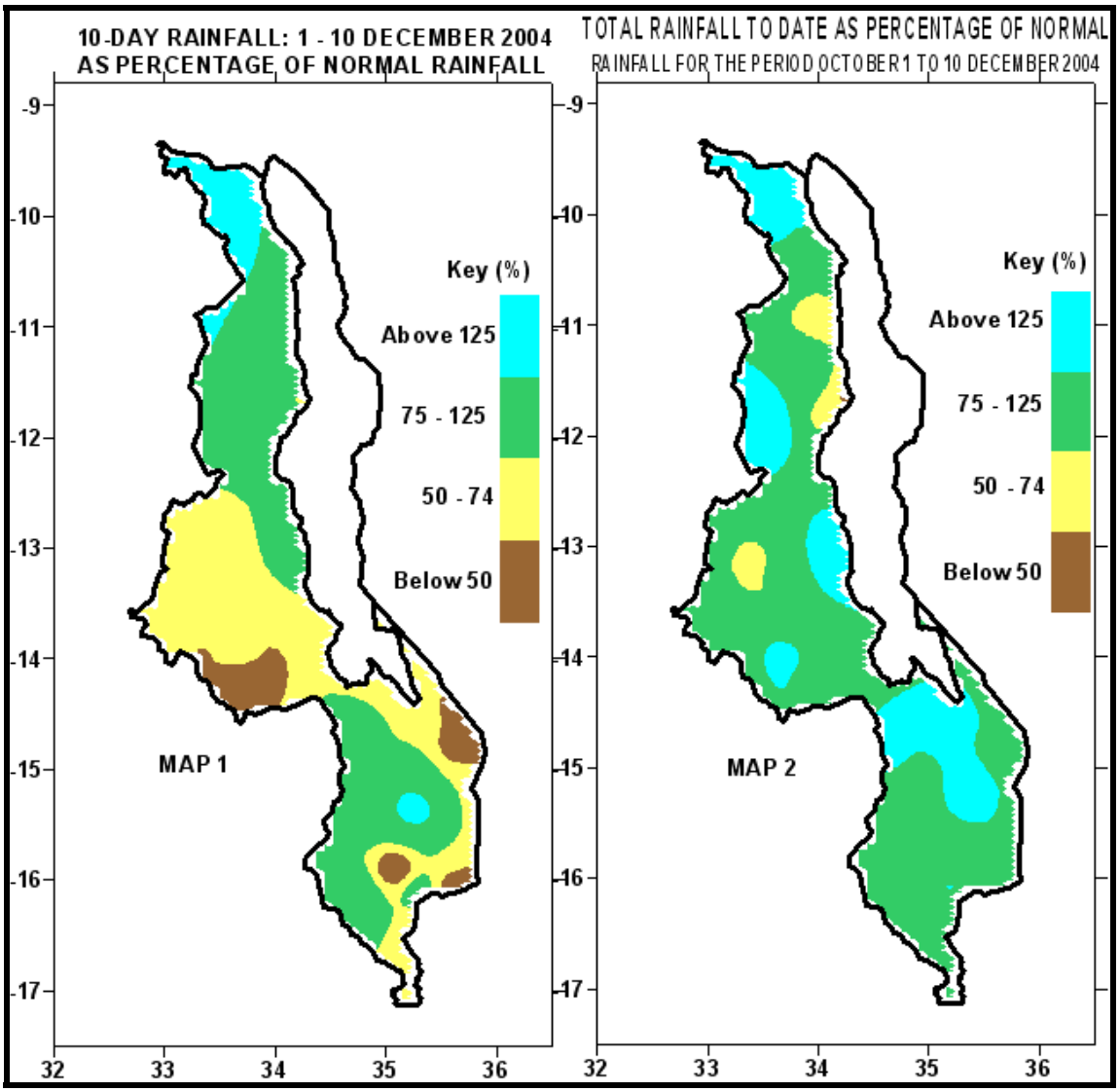
Department of Meteorological Services

Period: 1 – 10 December 2004 Season: 2004/2005 Issue No.7

Release date: 15 December 2004

HIGHLIGHTS

- **Slight reduction of rainfall over the most parts of Malawi …**
- **Planting and fertilizer application were major activities …**
- **Conditions favourable for more rains in the next ten days…**



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

During the first 10-days of December, Malawi continued to be under the influence of Congo airmass and moist north easterly airflow. Congo airmass became predominant towards the end of the period. Consequently scattered thunderstorms and rain showers associated with locally heavy down pours occurred in some parts of the country.

There has been a reduction in rainfall in the period under review compared to the last 10-days of November 2004. On average the country experienced 5 days of rainfall. Above normal (above 125%) 10-day rainfall amounts were experienced at Chitipa (306%), Zomba RTC (151%), Dowa Agric (144%), Chikangawa (137%) and at Ntcheu-Nkhande (132%). High rainfall amounts in millimeters were reported at Chitipa Met (156.5), Chancellor College (142.7) and Zomba RTC (140.8). However, there were pockets of deficient rainfall such Bunda College which reported 7.3mm (12%), Blantyre Townhall 7.6mm (14%), Bvumbwe 19.3mm (22%), KIA and Kasungu Met which reported 24.0 and 26.3 respectively (49%), Mulanje Boma 37.2mm (40%), Lujeri 46.0mm (42%), Ntaja 30.5mm (45%). See Map 1 and Table 1.

Total rainfall to date shows that almost the whole country has so far received normal to above normal rainfall except at Nkhata Bay which has received 106.2mm which is 30% of normal rainfall. Notable above normal rainfall registered was 309% (265.3mm) at Karonga, 234% (380.7mm) at Ntcheu-Nkhande and 214% (211.6mm) at Ntchisi. See Map 2 and Table 1 for more details.

1.2 MEAN AIR TEMPERATURE

Mean maximum temperatures indicate that Shire Valley still registered very high temperatures. Mean maximum air temperature ranged from 22.4°C at Dedza to 34.0°C at Ngabu in Shire Valley. Highest absolute maximum temperature of 37.4°C was reported at Ngabu. The lowest absolute minimum temperature of 15.5°C was reported at Bvumbwe and Dedza.

1.3 MEAN DAILY WIND SPEEDS

At 2 meters height, observed wind speeds ranged from 0.6m/s (2.2km/hr) to 2.5m/s (9.0km/hr) at Chileka and Kasungu (See Table 2 for more details).

1.4 MEAN RELATIVE HUMIDITY

Mean relative humidity slightly increased over the country. On average the country had 76% relative humidity. The daily average relative humidity values over Malawi ranged from 69% at Ngabu to 81% at Salima.

2. AGROMETEOROLOGICAL ASSESSMENT

So far there has been very good distribution of rains both in space and time across the country during the first 10-days of December 2004. This has contributed to maintainance of soil moisture necessary to support planting, germination of seed, crop growth and development. Meanwhile farmers are continuing planting of crops, application of fertilizer and weeding. The maize crop is reported in good condition and ranges from germination to early vegetative stages in most areas. The rains have also increased pasture availability for communal grazing.

The amount of rainfall for the farmer to start planting crops will depend on the type of crop, climate of a particular locality, the soil type, methods and quality of land preparation plus other aspects. In general, planting of crops starts when the soil has enough moisture to support germination of the particular crop one wants to grow.

3. SEASONAL OUTLOOK

According to 2004/05 seasonal outlook, Malawi is expected to receive sufficient amount of rains for water resources, agricultural production and other uses. Distribution of these rains is expected to be erratic in space and time in some areas resulting in dry spells and floods of different intensities. Updates for the remainder of the season indicate improved rainfall prospects for Malawi.

4. FORECAST FOR 11 – 20 DECEMBER 2004

Currently weather systems show that Malawi will be mostly under the influence of Congo Air occasionally punctuated by Inter-Tropical Convergence zone (ITCZ). Hence widespread rains and thunderstorms which will be locally heavy, are expected to occur in some areas of the country.

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR

DEKAD 1 OF DECEMBER 2004: PERIOD 01 – 10

STATION NAME **SOUTHERN REGION**	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	DEKADAL TOTAL AS % NORMAL	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TO DATE AS % NORMAL	RAINY DAYS ≥ 0.3 mm
Balaka Township	48.4	66.7	73	136.4	171.2	80	6
Blantyre TownHall	7.6	52.7	14	143.2	184.6	78	2
Bvumbwe Met.	19.3	86.0	22	226.2	214.6	105	6
Chancellor College	142.7	117.8	121	363.6	245.4	148	7
Chichiri Met.	31.1	80.1	39	267.2	222.2	120	4
Chikwawa Boma	47.0	42.7	110	137.4	121.8	113	6
Chileka Airport	46.3	55.7	83	175.3	179.8	97	5
Kasinthula Res. Stn.	46.9	48.9	96	157.6	129.3	122	5
Liwonde Township	62.1	50.7	122	186.7	124.0	151	7
Lujeri Tea Estate	45.9	109.9	42	365.0	426.1	86	7
Mangochi Met.	32.8	53.6	61	215.0	131.6	163	7
Monkey Bay Met.	43.0	67.0	64	124.4	114.0	109	5
Mulanje Boma	37.2	93.5	40	291.7	341.1	86	4
Mwanza Boma	55.3	63.7	87	209.0	186.5	112	5
Nchalo Sucoma	48.4	57.9	84	106.2	134.9	79	6
Ngabu Met.	47.9	63.9	75	120.9	152.6	79	5
Ntaja Met.	30.5	67.9	45	163.9	149.4	110	4
Phalula Agric	67.5	61.9	109	182.8	177.0	103	4
Thyolo Met	53.5	80.4	67	257.5	223.6	115	8
Zomba RTC	140.8	93.1	151	346.1	221.5	156	7
CENTRAL REGION							
Bunda College	7.3	58.7	12	N/A	158.9	N/A	3
Chitedze Met.	34.4	62.4	55	180.7	153.8	117	3
Dowa Agric	66.8	46.3	144	142.8	105.0	136	6
Dwangwa Sugar Corp.	65.1	81.9	79	179.8	181.5	99	6
Dzonzi Forest	48.9	68.0	72	192.0	161.9	119	6
K.I.A. Met.	24.0	48.5	49	104.1	117.4	89	2
Kasungu Met	26.3	53.6	49	89.2	130.8	68	3
Mlangeni Njolomole	49.9	56.6	88	179.4	148.7	121	6
Natural Res. College	47.4	59.1	80	250.1	143.6	174	3
Nkhotakota Met	78.5	67.4	116	262.0	139.2	188	7
Ntcheu – Nkhande	95.6	72.2	132	380.7	162.8	234	7
Ntchisi Boma	49.6	49.0	101	211.6	98.9	214	4
Salima Met	47.1	75.9	62	126.8	124.3	102	6
Dedza RTC	37.3	49.8	75	158.6	132.5	120	5
NORTHERN REGION							
Chikangawa forest	91.3	66.6	137	144.0	162.7	89	5
Chitipa Met	156.5	51.2	306	239.8	133.1	180	7
Karonga Met.	42.8	39.1	109	265.3	85.9	309	4
Mzimba Met	49.1	59.0	83	219.4	119.4	184	5
Mzuzu Met.	57.8	59.2	98	194.3	197.1	99	5
NkhataBay Met.	40.3	75.8	53	106.2	358.7	30	5

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 1 OF DECEMBER 2004

STATION	MAX TEMP (°C)	MIN TEMP (°C)	ABS MAX (°C)	ABS MIN (°C)	WIND SPEED m/s	RH %
BVUMBWE	25.7	15.8	27.9	15.5	2.2	79
CHICHIRI	26.9	18.8	29.4	18.0	0.6	73
CHILEKA	28.5	20.9	31.4	20.0	2.5	77
NTAJA	28.2	21.1	30.9	20.0	1.7	77
CHITEDZE	26.2	18.9	28.4	17.1	0.7	77
CHITIPA	26.0	17.5	28.0	16.8	2.1	76
DEDZA	22.4	16.2	24.4	15.5	1.6	72
KASUNGU	27.2	19.0	29.0	17.9	2.5	74
KARONGA	30.2	22.7	32.0	21.0	1.6	75
K I A	26.4	18.6	28.5	17.4	1.6	79
MANGOCHI	30.5	22.0	32.1	21.0	0.9	76
MONKEY BAY	29.1	22.4	31.2	20.5	1.5	78
MZIMBA	26.6	18.3	28.4	16.8	0.7	75
MZUZU	26.3	17.7	28.5	16.7	1.5	78
NGABU	34.0	24.5	37.4	22.4	2.2	69
NKHATA BAY	30.2	21.2	32.9	20.5	2.0	79
NKHOTAKOTA	28.5	22.3	30.2	19.8	2.0	78
SALIMA	29.1	20.9	31.6	16.5	1.6	81
THYOLO	28.2	19.9	30.4	18.8	2.3	78

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