10-Day Rainfall & Agromet Bulletin

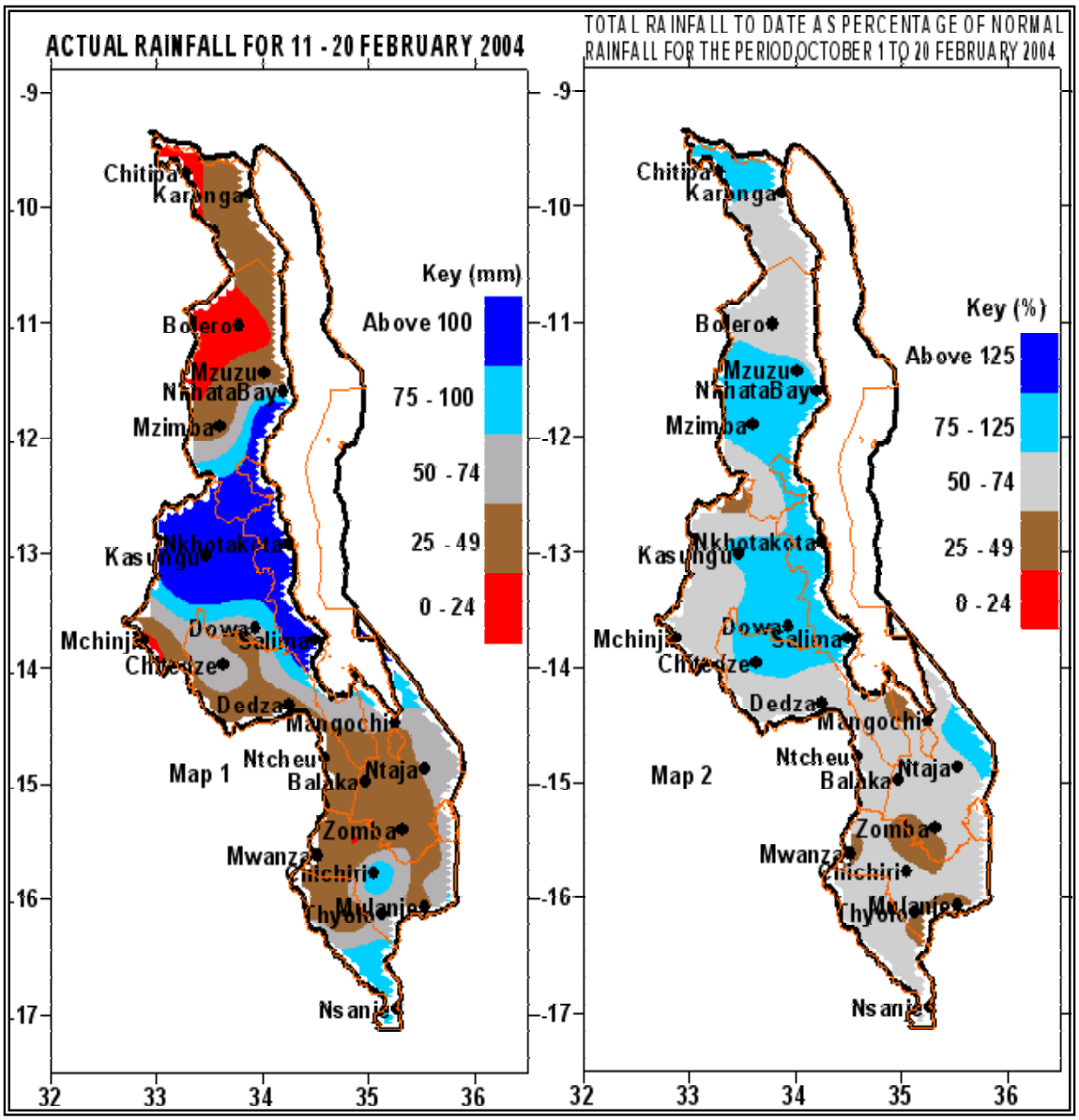
Department of Meteorological Services

Period: 11– 20 February 2004 Season: 2003/2004 Issue No.14

Release date: 25 February 2004

HIGHLIGHTS

- **Relatively dry weather persisted over the north and south…**
- **Maize crop reaches flowering and cob formation stages…**
- **Near normal to normal cumulative rainfall received …**
- **Moderate to heavy rains expected during 21 – 29 February 2004…**



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1. WEATHER SUMMARY

1.1 RAINFALL

Rainfall over Malawi during the second 10-days of February was restricted to below 50mm in most areas. Only few areas received more than 50mm. Higher rainfall intensities were confined to Kasungu, Salima and Nkhotakota districts in the centre, around Chichiri in the south and Nkhata Bay south in the north. Most areas in the above districts reported 10-day rainfall amounts in excess of 100mm. Areas which received below 25mm included areas around Chitipa in the north, Mchinji and Lilongwe International Airport in the centre and Chileka Airport in the south.

Cumulative rainfall performance (Map 2) by 20 February indicates that most areas in Malawi had received near normal (50 – 74%) to normal rainfall (75 – 125%). However, pockets of below normal rainfall still existed in some areas particularly around Mulanje Boma, Mangochi and Mwanza in the south. In most parts of southern Malawi, rainfall has been mostly below normal since the season started.

1.2 MEAN AIR TEMPERATURE

Mean daily maximum temperatures over most areas had been warm to hot (26-34°C) except at Dedza (23°C) where mild temperatures continued (Table 2). Ngabu in Shire Valley continued to experience very hot temperatures (up to 37°C on 12th February). The lowest temperature was experienced at Dedza in central Malawi on 14th February.

1.3 AVERAGE DAILY WIND SPEEDS

During the period under discussion, average wind speeds at a height of 2m above ground ranged from 1 to 3 m/s. The highest (2.6 m/s) was reported at Chileka Airport.

1.4 MEAN RELATIVE HUMIDITY

During the second 10-days of February, moist air covered most parts of Malawi. This is evident from high mean daily relative humidity values that were registered during the period. Most areas had daily average relative humidity values of more than 75%.The highest was 84% recorded at Salima and Mzuzu while Ntaja recorded the lowest.

1.5 MEAN SUNSHINE HOURS

Most parts of Malawi experienced fairly cloudy conditions. The observed bright sunshine hours over the country ranged from five to around seven hours. The calculated solar radiation using sunshine hours ranged from eight to nine Cal/ cm^2/day.

2. AGROMETEOROLOGICAL ASSESSMENT

Light to moderate rainfall amounts that were received during the second 10-days of February supported agricultural activities as well as growth and development of crops. Most crops have reached critical flowering stage and enough soil moisture is required. Maize is mostly at flowering and cob formation stages. In some parts of the country, early planted hybrid maize has reached physiological maturity and some households have started consuming green maize and other matured crops. However, in the some parts of the country particularly in the south maize crop that was planted mid January is at vegetative stage. The major concern for this crop is that in the south normally rains tail off by end of March and this might negatively affect crop production this season. Overall, better crop production is expected in the centre and north than in the south because rains this season have performed slightly better in the two regions than in the south.

3. FORECAST FOR 21 – 29 FEBRUARY 2004

Atmospheric conditions indicate that Congo air mass will remain active over most parts of Malawi. Therefore, moderate to heavy rains are expected over the country during the period 21 to 29

TABLE 1: DEKADAL RAINFALL FOR SELECTED STATIONS FOR DEKAD 2 OF FEBRUARY 2004: PERIOD 11 - 20

STATION NAME	DEKADAL TOTAL RAINFALL mm	DEKADAL NORMAL mm	TOTAL TO DATE mm	NORMAL TO DATE mm	TOTAL TODATE AS % NORMAL	RAINY DAYS ≥ 0.3 mm
SOUTHERN REGION						
Bvumbwe Met.	81.6	79.1	451.0	748.9	60	5
Chancellor College	42.6	82.0	580.0	937.8	62	7
Chichiri Met.	122.4	80.1	489.5	759.6	64	6
Chikwawa Boma	42.3	51.3	385.0	530.7	73	3
Chileka Airport	21.0	67.8	398.8	638.4	62	8
Kasinthula Res. Stn.	25.4	46.3	350.6	487.8	72	6
Lujeri Tea Estate	88.0	138.8	643.7	1341.2	48	8
Mangochi Met.	47.6	68.3	389.6	600.2	65	6
Monkey Bay Met.	85.2	79.1	379.6	749.2	51	7
Mulanje Boma	35.4	103.7	467.6	1029.1	45	4
Mwanza Boma	45.9	73.6	302.7	704.4	43	4
Namiasi Agric	83.8	69.7	185.6	621.7	30	4
Naminjiwa Agric	44.0	75.2	481.2	715.9	67	3
Nchalo Sucoma	35.1	56.6	251.3	492.2	51	6
Ngabu Met.	99.8	58.4	313.2	548.2	57	7
Ntaja Met.	52.4	65.4	446.0	629.2	71	4
Satemwa Tea Est. No.1	55.1	75.9	450.3	854.0	53	10
Thuchila Agric	56.0	55.5	279.0	524.7	53	2
Thyolo Met	72.2	83.0	373.1	785.3	48	9
Zomba RTC	63.6	68.8	567.1	849.2	67	5
CENTRAL REGION						
Chitedze Met.	74.1	64.5	533.4	651.1	82	5
Dedza Met	32.2	83.4	380.6	681.8	56	4
Dwangwa Sugar Corp.	107.6	52.6	643.0	731.4	88	6
L.I.A. Met.	18.9	57.8	486.7	605.4	80	5
Kasungu Met	198.9	85.0	612.8	647.8	95	6
Mchinji Boma	4.0	77.7	456.0	734.7	62	1
Nkhotakota Met	88.5	97.6	584.8	807.3	72	6
Ntchisi Boma	60.0	71.8	614.5	616.9	100	3
Salima Met	191.1	96.4	734.2	831.7	88	8
NORTHERN REGION						
Baka Res. Stn.	50.4	63.4	364.6	560.9	65	4
Chitipa Met	15.5	75.4	563.8	680.6	83	3
Chintheche Agric	171.5	64.5	1043.0	874.0	119	5
Karonga Met.	57.0	53.3	431.4	526.0	82	4
Mzimba Met	28.5	74.8	575.0	626.4	92	5
Mzuzu Met.	34.4	69.6	588.8	695.1	85	6
Lunyangwa Res. Stn	40.4	N/A	429.3	N/A	N/A	5
NkhataBay Met.	39.1	80.2	571.8	929.4	62	6

TABLE 2: AGROMETEOROLOGICAL PARAMETERS FOR DEKAD 2 OF FEBRUARY 2004

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^{-2} p/day
BVUMBWE	26.1	17.5	28.4	15.9	1.4	82	-	-	-	-
CHICHIRI	26.6	18.3	31.0	16.7	0.9	79	-	-	-	-
CHILEKA	25.8	20.9	32.0	19.6	2.6	79	5.6	5.9	4.7	8.1
NTAJA	29.2	21.1	33.0	19.5	1.6	71	6.4	6.5	5.2	8.6
CHITEDZE	27.0	18.3	28.5	16.9	0.5	75	-	-	-	-
CHITIPA	27.4	16.7	29.4	15.0	1.7	74	-	-	-	-
DEDZA	23.2	16.6	27.2	16.1	1.1	81	3.4	4.6	3.6	6.7
KASUNGU	26.5	17.7	29.7	17.0	1.2	83	-	-	-	-
KARONGA	29.8	22.3	31.5	21.0	1.3	82	6.3	6.4	5.1	8.7
L I A	26.6	16.2	28.3	14.1	1.1	80	5.3	5.4	4.2	8.0
MANGOCHI	31.0	22.3	33.6	21.5	1.3	75	-	-	-	-
MONKEY BAY	29.2	22.4	31.2	21.4	1.2	80	-	-	-	-
MZIMBA	27.0	17.0	29.0	15.2	0.6	79	-	-	-	-
MZUZU	25.8	17.1	27.3	14.6	1.3	84	-	-	-	-
NGABU	33.5	23.7	37.0	22.5	2.0	77	6.9	7.3	5.9	8.9
NKHATA BAY	29.6	20.8	31.3	19.6	2.0	83	-	-	-	-
NKHOTAKOTA	28.1	21.2	30.0	19.6	2.1	83	-	-	-	-
SALIMA	29.0	21.0	31.4	18.9	1.6	84	-	-	-	-
THYOLO	27.5	19.4	29.0	17.5	1.3	82	-	-	-	-

Glossary of some terms on this table

- E_O = 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).
- - Means data not available