

# METEOROLOGICAL SERVICE



MARCH 1985

## AGROMETEOROLOGICAL BULLETIN

### The weather of March

Troughs of low pressure with centres over Ireland on 1st and 3rd gave way to a south-southwest airflow and associated rainbelts which prevailed to 9th. High pressure gave bright, dry and cold conditions from 10th to 12th. A northwesterly airflow set in on 12th and the subsequent weather became very cold. A trough moving southwards over Scotland and England on 15th induced a moderately strong northerly airflow over Ireland with wintry showers of snow, sleet or hail on 15th and 16th.

High pressure conditions on 17th preceded the approach of a North Atlantic trough on 18th which induced a fresh to strong southeasterly wind. The high pressure maintained some influence on conditions over the country and the oncoming troughs were slowed down over western regions mostly. There were outbreaks of sleet or snow in many southern and midland regions however. An occluded depression over the southwest of the country on the 20th was steered offshore again to the southeast and an easterly airflow continued to give wintry conditions. Winds backed to the north on 22nd.

Subsequent depressions moved towards the Bay of Biscay and a weak pressure pattern developed over Ireland north of the depression centres. An increasing northerly airflow developed on 26th/27th which was followed by a ridge of high pressure on 28th. Subsequently a southwesterly airflow with associated frontal troughs dominated to the end of the month.

#### Precipitation:

Monthly rainfall amounts were well above normal apart from parts of the midlands, east and south. Amounts generally exceeded 130% of normal varying from 187% of normal at Glenamoy to 84% of normal at Casement Aerodrome. Wettest days were 1st, 3rd, 18th, 20th/21st, 29th and 31st. Soil moisture exceeded field capacity at the end of the month (see Table 3).

#### Temperature:

Mean monthly air temperature was below normal varying from 0.9C° below at Belmullet and Claremorris to 0.3C° below at Shannon Airport. Cold conditions dominated from 11th to 28th. Soil temperatures (100mm) varied from about 1.5C° above average in the 5-day spell 6th-10th to about 2.5C° below average in the period 21st-25th; values were still about 1.0C° below average during the final period, 26th-31st. Air frost was generally slight, but sharp in some places on 11th and 26th while ground frost occurred frequently and was sharp to severe at many stations on 5th, 7th, 11th, 17th, 25th, 26th and on 28th (in southern regions).

#### Sunshine and Radiation:

Mean duration of bright sunshine was below normal except in the east and parts of the west. Values varied from 105% of normal at Dublin Airport to 75% at Belmullet and Birr. Global radiation was well below average at Kilkenny (90%) and Birr(80%) and near average for Valentia Observatory (96%) and Dublin Airport (103%).

#### Wind:

Strong winds with gale gusts were widespread on 1st, 3rd/4th, 6th, 15th, 18th, 20th, and 29th to 31st.

#### Summary:

Very wet, cold and dull; conditions were particularly cold from 18th to 22nd.

The data contained in this Bulletin are Provisional. Some of the material in Table 1 will be published in its final form in the Monthly Weather Report; final values of Global Radiation at stations in Table 2 will be published in the annual Solar Radiation Observations.

TABLE 1

MARCH 1985

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND				
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10cm)				TOTAL NO. OF HOURS	% OF AVERAGE	MEAN SPEED (ms <sup>-1</sup> )	DAYS WITH GALE GUSTS	P.E. (PENMAN) (mm)		
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	% OF AVERAGE	DEGREE DAYS ABOVE 10.0°C	% OF AVERAGE	LOWEST "GRASS-MIN"	DATE	DAYS WITH GROUND FROST						MEAN DAILY	DIFFERENCE FROM AVERAGE
Carlow (Oak Park) Co. Carlow	1-10	15.0	-	7	4	10.6	3.1	6.8	-	-0.6	5	1	29	-	3	-	-4.2	7	3	-	-	35.9	-	4.4	-	-
	11-20	31.2	-	7	4	7.7	-0.2	3.8	-	-3.8	11	5	10	-	1	-	-7.5	11	8	-	-	40.8	-	4.7	-	-
	21-END	26.6	-	8	6	9.3	1.8	5.5	-	-2.1	26	3	24	-	4	-	-7.0	26	6	-	-	27.4	-	4.4	-	-
	MONTH	72.8	137	22	14	9.2	1.6	5.4	-	-3.8	11	9	63	-	7	-	-7.5	11	17	-	-	104.1	-	4.5	-	28
Shannon Airport Co. Clare	1-10	32.0	-	8	7	11.0	4.7	7.9	-	0.5	7	0	37	-	4	-	-5.4	7	4	6.9	-	33.4	-	4.6	2	-
	11-20	29.1	-	7	3	8.2	2.3	5.3	-	-0.4	11	1	15	-	1	-	-5.9	11	5	5.6	-	28.3	-	4.6	3	-
	21-END	29.8	-	6	5	10.6	3.1	6.8	-	-0.2	25	1	33	-	5	-	-4.9	25	7	6.4	-	45.7	-	4.3	1	-
	MONTH	90.9	147	21	15	10.0	3.4	6.7	-0.3	-0.4	11	2	84	76	10	59	-5.9	11	16	6.3	-0.7	107.4	100	4.5	6	35
Cork Airport Co. Cork	1-10	30.2	-	7	6	9.4	4.0	6.7	-	1.6	7	0	26	-	1	-	-1.2	3	4	6.5	-	26.9	-	7.5	5	-
	11-20	45.5	-	6	4	7.2	1.5	4.4	-	-0.9	16	2	10	-	0	-	-4.1	11	5	5.2	-	30.6	-	6.4	4	-
	21-END	35.5	-	5	5	8.7	2.6	5.7	-	0.0	28	0	22	-	1	-	-5.8	28	7	5.8	-	35.4	-	7.3	5	-
	MONTH	111.2	108	18	15	8.5	2.7	5.6	-0.7	-0.9	16	2	57	67	2	-	-5.8	28	16	5.8	-0.6	92.9	86	7.0	14	35
Fermoy (Coolnakilla) Co. Cork	1-10	39.0	-	8	5	9.0	3.4	6.2	-	1.3	5	0	22	-	0	-	-3.4	5	4	-	-	25.2	-	5.1	-	-
	11-20	48.6	-	6	6	6.1	1.0	3.5	-	-1.2	16	2	6	-	0	-	-7.3	11	9	-	-	34.8	-	6.1	-	-
	21-END	35.8	-	6	4	8.5	1.5	5.0	-	-3.0	21	4	20	-	1	-	-5.6	28	8	-	-	33.9	-	4.7	-	-
	MONTH	123.4	-	20	15	7.9	1.9	4.9	-	-3.0	21	6	48	-	2	-	-7.3	11	21	-	-	93.9	-	5.3	-	26
Fermoy (Moore Park) Co. Cork	1-10	40.2	-	7	5	10.5	2.8	6.6	-	-2.9	5	2	29	-	3	-	-6.9	5	4	-	-	26.4	-	3.4	-	-
	11-20	49.4	-	7	7	7.8	0.4	4.1	-	-4.0	11	5	11	-	1	-	-8.1	11	7	-	-	31.5	-	3.1	-	-
	21-END	23.1	-	7	4	10.1	1.8	5.9	-	-3.7	28	3	29	-	4	-	-10.0	28	7	-	-	30.1	-	3.5	-	-
	MONTH	112.7	144	21	16	9.5	1.7	5.6	-	-4.0	11	10	69	-	7	-	-10.0	28	18	-	-	88.0	-	3.3	-	19
Roches Point Co. Cork	1-10	23.2	-	6	5	9.9	5.3	7.6	-	2.3	5	0	33	-	1	-	-0.7	5	1	7.5	-	27.4	-	6.8	4	-
	11-20	55.9	-	6	4	7.6	3.3	5.5	-	1.8	17	0	15	-	0	-	-0.7	17	3	6.0	-	35.2	-	6.9	5	-
	21-END	32.2	-	5	4	9.4	4.0	6.7	-	1.8	28	0	29	-	1	-	-3.1	28	3	6.9	-	37.9	-	7.0	4	-
	MONTH	111.3	148	17	13	9.0	4.2	6.6	-0.6	1.8	17	0	77	73	3	-	-3.1	28	7	6.8	-0.6	100.5	92	6.9	13	41
Glencolumbkille Co. Donegal	1-10	40.4	-	6	5	9.7	3.7	6.7	-	1.6	7	0	26	-	1	-	-6.0	7	7	-	-	24.5	-	3.9	-	-
	11-20	67.9	-	9	8	6.7	1.6	4.2	-	0.3	19	0	10	-	0	-	-7.4	11	10	-	-	31.5	-	5.6	-	-
	21-END	66.2	-	9	8	8.6	2.5	5.6	-	0.2	21	0	21	-	2	-	-8.0	26	8	-	-	22.8	-	3.1	-	-
	MONTH	174.5	-	24	21	8.3	2.6	5.5	-	0.2	21	0	56	-	3	-	-8.0	26	25	-	-	78.8	-	4.2	-	27

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

MARCH 1985

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND							
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR								GROUND		SOIL (10cm)		TOTAL NO. OF HOURS	% OF AVERAGE	MEAN SPEED (ms <sup>-1</sup> )	DAYS WITH GALE GUSTS	P.E. (PENMAN) (mm)							
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	% OF AVERAGE	DEGREE DAYS ABOVE 10.0°C	% OF AVERAGE	LOWEST "GRASS-MIN"						DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE			
Glenties Co. Donegal	1-10	32.1	-	6	5	9.7	4.5	7.1	-	0.5	3	0	29	-	2	-	-4.2	3	3	-	-	N/A	-	-	-	-	-	-	-
	11-20	32.7	-	7	6	6.8	0.4	3.6	-	-2.2	11	3	9	-	0	-	-7.1	11	8	-	-	N/A	-	-	-	-	-	-	-
	21-END	57.3	-	10	8	8.4	1.6	5.0	-	-2.2	26	4	19	-	2	-	-4.3	26	6	-	-	N/A	-	-	-	-	-	-	-
	MONTH	122.1	114	23	19	8.3	2.1	5.2	-	-2.2	26	7	57	-	4	-	-7.1	11	17	-	-	N/A	-	-	-	-	-	-	-
Malin Head Co. Donegal	1-10	32.0	-	5	3	9.5	4.8	7.2	-	2.3	3	0	29	-	2	-	-1.1	3	1	6.5	-	19.5	-	9.7	8	-	-	-	-
	11-20	19.5	-	6	4	6.6	1.6	4.1	-	-0.8	16	1	8	-	0	-	-3.8	11	6	4.6	-	37.8	-	9.6	7	-	-	-	-
	21-END	52.3	-	6	5	8.1	3.7	5.9	-	1.0	26	0	20	-	1	-	-1.0	26	1	5.9	-	22.8	-	7.6	5	-	-	-	-
	MONTH	103.8	146	17	12	8.1	3.4	5.7	-0.7	-0.8	16	1	57	70	3	-	-3.8	11	8	5.7	-0.4	80.1	76	8.9	20	41	-	-	-
Casement Aerodrome Co. Dublin	1-10	12.5	-	4	3	10.8	3.7	7.2	-	0.9	5	0	32	-	3	-	-2.8	8	4	6.5	-	37.8	-	6.8	7	-	-	-	-
	11-20	10.5	-	3	1	7.6	-0.6	3.5	-	-3.2	11	7	10	-	0	-	-7.2	18	8	4.4	-	38.2	-	5.7	2	-	-	-	-
	21-END	18.2	-	6	6	9.2	1.8	5.5	-	-2.6	26	3	25	-	5	-	-7.3	25	7	4.7	-	31.5	-	6.2	4	-	-	-	-
	MONTH	41.2	84	13	10	9.2	1.6	5.4	-0.6	-3.2	11	10	66	76	8	-	-7.3	25	19	5.1	-	107.3	102	6.2	13	35	-	-	-
Dublin Airport Co. Dublin	1-10	15.6	-	4	3	10.5	4.1	7.3	-	0.5	5	0	31	-	3	-	-2.7	8	2	6.5	-	37.3	-	5.6	2	-	-	-	-
	11-20	26.6	-	5	3	7.5	0.5	4.0	-	-2.4	17	3	11	-	1	-	-4.2	18	8	5.1	-	45.4	-	5.8	2	-	-	-	-
	21-END	26.1	-	5	5	8.4	2.5	5.4	-	-0.5	25	2	22	-	4	-	-5.6	25	5	5.5	-	33.7	-	5.8	4	-	-	-	-
	MONTH	68.3	137	14	11	8.8	2.4	5.6	-0.6	-2.4	17	5	63	72	8	-	-5.6	25	15	5.7	-0.5	116.4	105	5.7	8	38	-	-	-
Kinsealy Co. Dublin	1-10	12.1	-	4	4	10.7	4.0	7.3	-	0.6	8	0	32	-	3	-	-4.7	8	4	-	-	38.1	-	4.0	-	-	-	-	-
	11-20	21.8	-	5	2	7.5	0.6	4.0	-	-1.9	11	4	11	-	1	-	-5.4	11	8	-	-	46.2	-	5.2	-	-	-	-	-
	21-END	N/A	-	N/A	N/A	9.6	2.5	6.0	-	-1.8	26	2	27	-	5	-	-6.5	25	5	-	-	36.7	-	4.1	-	-	-	-	-
	MONTH	N/A	N/A	N/A	N/A	9.3	2.3	5.8	-	-1.9	11	6	70	-	9	-	-6.5	25	17	-	-	121.0	-	4.4	-	35	-	-	-
Galway Co. Galway	1-10	24.2	-	8	5	9.9	4.1	7.0	-	0.1	7	0	29	-	2	-	-5.0	7	3	6.8	-	31.1	-	5.3	2	-	-	-	-
	11-20	35.7	-	7	4	7.8	1.7	4.7	-	-1.6	11	1	12	-	1	-	-6.1	11	5	5.5	-	31.7	-	4.7	3	-	-	-	-
	21-END	35.3	-	7	4	9.5	2.5	6.0	-	-1.7	25	2	26	-	2	-	-4.7	25	7	6.3	-	49.4	-	5.1	2	-	-	-	-
	MONTH	95.2	125	22	13	9.1	2.8	5.9	-0.7	-1.7	25	3	68	-	4	-	-6.1	11	15	6.2	-	112.2	102	5.0	7	34	-	-	-
Killarney (Muckross House) Co. Kerry	1-10	42.8	-	6	6	10.3	4.3	7.3	-	-0.7	7	1	32	-	3	-	-3.6	7	4	-	-	22.4	-	-	-	-	-	-	-
	11-20	83.4	-	9	9	7.9	3.0	5.5	-	-0.9	11	1	15	-	1	-	-4.1	11	4	-	-	22.9	-	-	-	-	-	-	-
	21-END	68.8	-	7	5	9.9	3.4	6.7	-	-1.2	25	1	30	-	3	-	-3.9	25	6	-	-	29.0	-	-	-	-	-	-	-
	MONTH	195.0	147	22	20	9.4	3.6	6.5	-	-1.2	25	3	76	-	7	-	-4.1	11	14	-	-	74.3	-	-	-	-	-	-	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

MARCH 1985

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND		P.E. (PENMAN) (mm)		
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND				SOIL (10cm)			TOTAL NO. OF HOURS	% OF AVERAGE	MEAN SPEED (ms <sup>-1</sup> )	DAYS WITH GALE GUSTS			
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	% OF AVERAGE	DEGREE DAYS ABOVE 10.0°C	% OF AVERAGE	LOWEST "GRASS-MIN"	DATE	DAYS WITH GROUND FROST						MEAN DAILY	DIFFERENCE FROM AVERAGE
Cahirciveen (Valentia Obsy.) Co. Kerry	1-10	59.5	-	8	7	10.5	5.0	7.7	-	0.1	7	0	35	-	2	-	-1.3	7	1	8.0	-	26.7	-	6.7	7	-
	11-20	85.1	-	8	8	9.0	3.3	6.1	-	-0.8	11	1	20	-	1	-	-2.0	11	1	7.2	-	26.4	-	5.8	6	-
	21-END	51.6	-	8	4	10.2	4.0	7.1	-	-0.2	26	1	34	-	3	-	-2.1	26	3	7.9	-	38.2	-	6.0	3	-
	MONTH	194.2	169	24	19	9.9	4.1	7.0	-0.8	-0.8	11	2	89	73	6	-	-2.1	26	5	7.7	-0.2	91.3	87	6.2	16	34
Ardfort (Liscehane) Co. Kerry	1-10	45.3	-	7	7	10.7	4.6	7.6	-	1.0	7	0	34	-	4	-	-5.6	7	6	-	-	31.7	-	-	-	-
	11-20	48.9	-	9	8	8.4	2.7	5.5	-	1.1	11	0	16	-	1	-	-6.4	11	7	-	-	28.2	-	-	-	-
	21-END	38.1	-	8	6	10.1	2.6	6.4	-	-1.5	26	3	30	-	4	-	-8.4	26	8	-	-	47.5	-	-	-	-
	MONTH	132.3	-	24	21	9.7	3.3	6.5	-	-1.5	26	3	80	-	9	-	-8.4	26	21	-	-	107.4	-	-	-	-
Lullymore Co. Kildare	1-10	16.4	-	4	4	10.1	2.4	6.3	-	-1.7	5	2	25	-	2	-	-6.5	5	4	-	-	32.7	-	4.2	-	-
	11-20	17.4	-	6	5	7.1	-0.6	3.2	-	-4.4	18	6	9	-	0	-	-9.0	11	9	-	-	37.6	-	4.2	-	-
	21-END	32.5	-	7	7	9.1	1.4	5.2	-	-4.9	26	3	22	-	2	-	-9.5	25	6	-	-	30.0	-	4.1	-	-
	MONTH	66.3	121	17	16	8.8	1.1	4.9	-	-4.9	26	11	56	-	5	-	-9.5	25	19	-	-	100.3	-	4.2	-	N/A
Kilkenny Co. Kilkenny	1-10	30.1	-	6	3	10.8	2.9	6.9	-	-1.9	5	3	30	-	3	-	-8.3	5	4	6.0	-	34.2	-	3.8	3	-
	11-20	35.2	-	6	4	7.9	-0.0	3.9	-	-3.1	11	6	11	-	1	-	-9.3	11	8	4.5	-	41.5	-	3.7	2	-
	21-END	27.1	-	7	5	9.6	1.5	5.5	-	-3.4	25	4	25	-	3	-	-9.3	25	7	5.0	-	27.0	-	3.8	1	-
	MONTH	92.4	162	19	12	9.4	1.5	5.5	-0.7	-3.4	25	13	66	71	7	-	-9.3	11	19	5.2	-0.8	102.7	99	3.8	6	29
Mooncoin (Silverspring) Co. Kilkenny	1-10	27.6	-	7	5	10.5	3.2	6.8	-	-1.1	8	1	29	-	2	-	-7.6	5	5	-	-	35.9	-	-	-	-
	11-20	39.4	-	5	3	8.3	-0.4	3.9	-	-5.8	15	5	11	-	1	-	-7.9	11	8	-	-	42.1	-	-	-	-
	21-END	34.9	-	7	4	9.6	1.9	5.7	-	-3.7	25	3	27	-	3	-	-8.7	28	7	-	-	27.1	-	-	-	-
	MONTH	101.9	129	19	12	9.5	1.6	5.5	-	-5.8	15	9	67	-	6	-	-8.7	28	20	-	-	105.1	-	-	-	-
Ballinamore Co. Leitrim	1-10	30.8	-	7	6	9.3	2.5	5.9	-	-1.4	5	2	22	-	1	-	-7.6	5	4	-	-	23.7	-	3.4	-	-
	11-20	43.3	-	8	7	7.0	-0.2	3.4	-	-4.1	11	5	9	-	0	-	-11.1	11	9	-	-	35.2	-	3.2	-	-
	21-END	44.9	-	6	5	9.0	1.9	5.5	-	-1.8	25	1	22	-	3	-	-8.7	25	8	-	-	22.1	-	3.3	-	-
	MONTH	119.0	142	21	18	8.4	1.4	4.9	-	-4.1	11	8	52	-	4	-	-11.1	11	21	-	-	81.0	-	3.3	-	24
Ardee (Boharnamoe) Co. Louth	1-10	14.0	-	7	3	10.8	3.1	6.9	-	-1.1	5	2	30	-	4	-	-3.9	5	3	-	-	-	-	-	-	-
	11-20	23.3	-	6	4	7.7	-0.2	3.7	-	-3.6	18	7	11	-	1	-	-4.9	17	8	-	-	-	-	-	-	-
	21-END	31.4	-	7	6	10.8	1.6	6.2	-	-1.9	25	4	31	-	7	-	-2.6	27	6	-	-	-	-	-	-	-
	MONTH	68.7	121	20	13	9.8	1.5	5.6	-	-3.6	18	13	72	-	12	-	-4.9	17	17	-	-	-	-	-	-	-

TABLE 1 (CONTINUED)

MARCH 1985

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND				
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR										GROUND		SOIL (10cm)		TOTAL NO. OF HOURS	% OF AVERAGE	MEAN SPEED (ms <sup>-1</sup> )	DAYS WITH GALE GUSTS	P.E. (PENMAN) (mm)		
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	% OF AVERAGE	DEGREE DAYS ABOVE 10.0°C	% OF AVERAGE	LOWEST "GRASS-MIN"	DATE	DAYS WITH GROUND FROST						MEAN DAILY	DIFFERENCE FROM AVERAGE
Ballinrobe (Creagh) Co. Mayo	1-10	41.5	-	8	7	9.5	3.1	6.3	-	-1.3	7	1	24	-	1	-	-8.4	7	6	-	-	27.0	-	6.4	-	-
	11-20	51.1	-	8	6	7.6	0.3	3.9	-	-3.4	11	4	10	-	1	-	-10.6	11	10	-	-	27.4	-	3.3	-	-
	21-END	49.0	-	6	5	10.0	1.7	5.9	-	-2.4	25	4	27	-	3	-	-10.4	25	8	-	-	36.1	-	2.6	-	-
	MONTH	141.6	148	22	18	9.1	1.7	5.4	-	-3.4	11	9	62	-	4	-	-10.6	11	24	-	-	90.5	-	4.1	-	25
Belmullet Co. Mayo	1-10	32.7	-	7	6	9.6	4.4	7.0	-	1.4	10	0	29	-	1	-	-2.5	7	2	6.9	-	27.6	-	7.5	4	-
	11-20	34.3	-	7	6	8.0	2.1	5.0	-	-1.6	11	1	14	-	1	-	-6.4	11	2	6.4	-	29.7	-	7.1	5	-
	21-END	45.4	-	10	7	9.3	3.5	6.4	-	0.0	26	0	27	-	2	-	-4.1	26	3	6.7	-	27.1	-	6.4	3	-
	MONTH	112.4	135	24	19	9.0	3.3	6.1	-0.9	-1.6	11	1	70	70	3	-	-6.4	11	7	6.6	-0.3	84.4	75	7.0	12	34
Claremorris Co. Mayo	1-10	26.8	-	7	7	9.6	2.6	6.1	-	-1.4	7	2	23	-	1	-	-6.5	5	4	5.9	-	25.5	-	6.1	4	-
	11-20	42.0	-	8	8	7.1	0.0	3.5	-	-3.7	11	4	9	-	1	-	-7.2	11	9	4.7	-	25.8	-	5.1	3	-
	21-END	43.5	-	8	4	9.6	1.8	5.7	-	-1.8	25	3	24	-	2	-	-6.5	24	7	5.4	-	32.4	-	5.5	2	-
	MONTH	112.3	139	23	19	8.8	1.5	5.1	-0.9	-3.7	11	9	57	66	4	-	-7.2	11	20	5.4	-0.6	83.7	85	5.6	9	25
Glenamoy Co. Mayo	1-10	45.0	-	6	5	9.7	3.9	6.8	-	0.3	3	0	28	-	1	-	-2.1	3	3	-	-	24.6	-	4.8	-	-
	11-20	87.5	-	9	8	7.3	0.8	4.0	-	-2.7	11	2	10	-	0	-	-6.7	11	7	-	-	27.5	-	5.2	-	-
	21-END	60.2	-	8	6	9.2	2.4	5.8	-	-2.0	26	2	25	-	2	-	-4.6	26	6	-	-	N/A	-	3.3	-	-
	MONTH	192.7	187	23	19	8.7	2.4	5.6	-	-2.7	11	4	62	-	3	-	-6.7	11	16	-	-	N/A	-	4.4	-	N/A
Dunsany (Grange) Co. Meath	1-10	15.4	-	5	3	9.8	2.4	6.1	-	-2.2	5	2	23	-	2	-	-7.0	7	4	-	-	33.1	-	-	-	-
	11-20	13.8	-	6	3	7.1	-0.8	3.2	-	-4.0	17	7	9	-	0	-	-10.0	17	9	-	-	40.0	-	-	-	-
	21-END	31.6	-	8	7	8.8	1.3	5.0	-	-2.8	26	4	22	-	3	-	-9.0	25	7	-	-	27.1	-	-	-	-
	MONTH	60.8	105	19	13	8.6	1.0	4.8	-	-4.0	17	13	54	-	5	-	-10.0	17	20	-	-	100.2	-	-	-	-
Clones Co. Monaghan	1-10	21.9	-	7	3	9.8	2.9	6.3	-	-0.7	5	2	25	-	2	-	-8.7	5	4	5.5	-	23.4	-	5.4	2	-
	11-20	20.0	-	6	6	6.9	-0.4	3.3	-	-3.2	11	6	8	-	0	-	-10.0	11	8	4.3	-	40.3	-	5.1	4	-
	21-END	26.3	-	5	4	8.8	1.7	5.2	-	-2.5	26	3	23	-	3	-	-6.4	26	6	5.0	-	18.5	-	4.9	2	-
	MONTH	68.2	110	18	13	8.5	1.4	5.0	-0.6	-3.2	11	11	55	71	5	-	-10.0	11	18	5.0	-0.6	82.2	85	5.1	8	27
Birr Co. Offaly	1-10	18.4	-	7	4	10.7	3.1	6.9	-	0.0	7	0	29	-	3	-	-4.7	7	5	6.6	-	25.7	-	4.8	3	-
	11-20	20.3	-	7	5	7.4	0.5	4.0	-	-3.5	11	3	10	-	1	-	-8.1	11	8	5.1	-	29.8	-	4.7	3	-
	21-END	23.1	-	6	5	9.7	1.6	5.6	-	-3.9	26	4	26	-	3	-	-8.3	26	7	5.6	-	25.1	-	4.1	1	-
	MONTH	61.8	117	20	14	9.3	1.7	5.5	-0.8	-3.9	26	7	66	72	7	-	-8.3	26	20	5.8	-0.6	80.6	75	4.5	7	29

NOTES ON THE TABLES IN JANUARY ISSUE



TABLE 2 GLOBAL SOLAR RADIATION

STATION	PERIOD	AMOUNT
		MJ/m <sup>2</sup>
Malin Head Co. Donegal	1-10	51.31
	11-20	88.56
	21-end	82.98
	Month	222.85
Dublin Airport Co. Dublin	1-10	71.48
	11-20	96.83
	21-end	89.53
	Month	257.84
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	64.87
	11-20	76.19
	21-end	116.32
	Month	257.38
Kilkenny Co. Kilkenny	1-10	70.67
	11-20	85.11
	21-end	89.50
	Month	245.28
Belmullet Co. Mayo	1-10	55.48
	11-20	77.23
	21-end	99.76
	Month	232.47
Clones Co. Monaghan	1-10	55.69
	11-20	93.16
	21-end	79.61
	Month	228.46
Birr Co. Offaly	1-10	58.15
	11-20	69.19
	21-end	86.18
	Month	213.52

Notes on the tables in January issue

TABLE 3 POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE

STATION	PERIOD	SOIL MOISTURE (mm)			
		P.E. (mm)	Deficit	Accumulated Deficit	Surplus
Carlow (Oak Park) Co. Carlow	1-10	0.8	-	0	14
	11- <del>19</del>	10.1	-	0	3
	<del>20</del> -end	11.0	-	0	34
	Month	21.9	-	-	-
Kinsealy Co. Dublin	1-10	3.1	-	0	9
	11- <del>19</del>	11.4	8	8	-
	<del>20</del> -end	16.9	-	0	27
	Month	31.4	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	5.2	-	0	89
	11- <del>19</del>	1.6	-	0	31
	<del>20</del> -end	18.2	-	0	75
	Month	25.0	-	-	-
Ballinamore Co. Leitrim	1-10	3.2	-	0	28
	11- <del>21</del>	11.6	-	0	33
	<del>22</del> - <del>30</del>	6.4	-	0	22
	Month	21.2	-	-	-
Glenamoy Co. Mayo	1-10	0.4	-	0	45
	11- <del>19</del>	2.7	-	0	74
	<del>20</del> -end	8.8	-	0	63
	Month	11.9	-	-	-
Johnstown Castle Co. Wexford	1-10	3.6	-	0	18
	11-20	12.2	-	0	11
	21-end	20.2	-	0	37
	Month	36.0	-	-	-

TABLE 4

SOIL CLIMATE (MULLINGAR)

BARE SOIL TYPE	PERIOD	MEAN TEMPERATURE °C at 100mm			TEMPERATURE GRADIENT (to 200mm)	SOIL WATER POTENTIAL (hPa) (at depths)	
		Max.	Daily	Min.		75mm	200mm
		Peat	1-10	5.8	5.2	4.1	+0.0
11-20	5.4		4.1	3.3	+1.1	95	84
21-end	4.9		4.3	3.1	+0.2	66	66
Mineral	1-10	7.0	5.7	4.1	+0.1	58	57
	11-20	6.7	4.4	2.9	+0.8	111	88
	21-end	6.1	4.8	3.0	+0.2	59	59

THE DISTRIBUTION OF AVERAGE ANNUAL RAINFALL OVER THE YEAR

(Continued)

The distributions of the parameters A and B are shown in Maps 1 and 2 respectively. It may be seen that the lowest values of A (indicating the greatest contrast between the wet and dry seasons) are found along the west coast while relatively large values (indicating a more uniform distribution) are found throughout the eastern half of the country. From Map 2, the largest values of B occur in the midlands and northeast while low values occur in the south and, to a lesser extent, in near-coastal areas of the northwest and southeast. A large value of B for a particular location implies that a larger proportion of the annual rainfall falls in the summer months and a smaller proportion in the winter months than is indicated by Fig.1. (This does not imply a summer maximum of rainfall: the basic annual cycle is sufficiently strong to ensure that the wettest months are still those of autumn and winter.) Rather surprisingly a larger proportion of the regional variability of the annual rainfall cycle is associated with differences in B rather than A, as may be seen from the fact that the range of B is greater than that of A.

In order to show that the regional differences represented by A and B are not negligible from an agricultural point of view, consider the contrast between a station in a high-B area (Clones) and one in a low-B area (Killarney). The average annual rainfalls are 917mm and 1253mm respectively, showing Killarney to be much the wetter location. However, if we are interested in the rainfall for the summer months (June, July, August) we find that they are almost equal (Clones 227mm, Killarney 225mm). Thus in this case, AAR is a poor indicator of the relative wetness of stations if it is the rainfall of a particular season which is of importance. Rainfall differences associated with variations in the parameter A are, as already mentioned, less noticeable than those associated with B. Nevertheless, if we compare a westerly, low-A station such as Kiltrush with a high-A one such as Dublin (Phoenix Park) we find that the contrast in average rainfall is much less in spring than in autumn - Kiltrush is 51% wetter than Dublin over the period September-November but only 16% wetter over the period March-May.

J J Logue  
Meteorological Service  
Galway



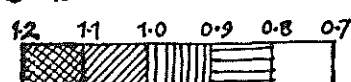
MAP 1



Rainfall Parameter A:  
[ =  $\frac{\text{(average rainfall Feb-Jul)}}{\text{(average rainfall Aug-Jan)}}$  ]



MAP 2



Rainfall Parameter B:  
[ =  $\frac{\text{(average rainfall May-Oct)}}{\text{(average rainfall Nov-Apr)}}$  ]

References:

- The Annual Cycle of Rainfall in Ireland  
Tech. Note No. 43, Meteorological Service, 1978.
- Regional Variations in the Annual Cycle of Rainfall in  
Ireland as Revealed by Principal Component Analysis.  
Journal of Climatology Vol 4, pp 597-607, 1984.