



AGROMETEOROLOGICAL BULLETIN

The Weather of July 1988

Summary

Complex low pressure areas and active rainbelts resulted in the wettest July in over thirty years. It was a dull month except for the northwest and it was also a cool July with mean air temperatures being below normal everywhere.

Meteorological Situation

Weather systems from the Atlantic determined our July weather. The first week saw a complex low pressure area centred over Ireland which gave showery conditions with thunderstorms being reported on the 3rd in the southwest and west. Active rainbelts moved eastwards across the country between the 9th and 10th. Fronts which crossed the country on the 16th became active in parts of the north and northeast and gave steady rainfall. The third week saw relatively small amounts of rainfall but depressions continued to pass over the country. On the 28th a depression crossed the south coast and moved northeastwards giving heavy rain particularly in Munster and Leinster. The end of the month saw the weather remaining unsettled.

Precipitation

Monthly precipitation amounts were well above normal everywhere. Amounts varied from 242% of normal at J.F.K. Park to 121% of normal at Dunsany. Heaviest daily rainfall was on the 28th when Roche's point received 47mm. Blight conditions occurred on the 10th, 12th, 13th, 16th, 19th, 21st to 23rd. Roche's Point had 45 effective blight hours between 0100 hrs on 21st and 0800 hrs on 23rd.

Temperature

Mean air temperatures were well below normal varying from 1.6°C below at Dublin Airport to 0.3 °C below at Malin Head. Highest temperature occurred generally on the 21st.

Sunshine and Radiation

Sunshine percentages were below normal everywhere and varied from 99% of normal at Malin Head (sunniest for 5 years) to 66% of normal at Valentia. Global radiation varied from 96% of normal at Birr to 91% of normal at Valentia.

Wind

The number of days with gale gusts varied from 2 to 12 at our stations. A depression passing close to the northwest on 24th - 25th caused gusts of 45 to 60 knots. North Connaught experienced the highest winds with gusts reaching 74 knots.

NOTE: 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

JULY 1988

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 ⁻¹)	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	48.9	-	8	6	32.4	10.3	21.3	-	7.8	5	0	169	-	114	-	4.2	5	0	-	-	24.6	-	1.2	-	-
	11-20	18.9	-	4	4	17.9	10.8	14.4	-	8.8	13	0	100	-	44	-	6.3	13	0	-	-	23.0	-	3.6	-	-
	21-END	41.4	-	10	7	17.0	10.7	13.8	-	7.8	31	0	104	-	44	-	4.0	27	0	-	-	43.6	-	2.1	-	-
	MONTH	109.2	202	22	17	22.2	10.6	16.4	-	7.8	5	0	372	-	202	-	4.0	27	0	-	-	91.9	-	2.3	-	77
Shannon Airport Co. Clare	1-10	64.5	-	9	8	17.6	11.1	14.4	-	9.4	5	0	100	-	44	-	3.0	5	0	15.8	-	35.2	-	5.0	2	-
	11-20	24.5	-	6	5	17.5	12.0	14.7	-	11.2	20	0	103	-	47	-	6.0	20	0	15.9	-	26.4	-	4.9	1	-
	21-END	40.4	-	10	8	17.6	11.5	14.6	-	8.9	31	0	112	-	50	-	3.5	31	0	15.8	-	52.5	-	6.0	4	-
	MONTH	129.4	196	25	21	17.6	11.5	14.6	-0.9	8.9	31	0	315	88	141	81	3.0	5	0	15.8	-1.6	114.1	79	5.3	7	83
Cork Airport Co. Cork	1-10	37.2	-	10	7	15.9	9.8	12.9	-	8.3	2	0	85	-	30	-	6.1	2	0	14.9	-	31.5	-	5.8	3	-
	11-20	23.2	-	4	2	17.0	10.2	13.6	-	7.5	18	0	92	-	37	-	2.9	18	0	15.4	-	32.6	-	6.1	2	-
	21-END	59.0	-	10	7	16.7	10.6	13.7	-	8.1	29	0	102	-	41	-	5.6	29	0	15.4	-	66.0	-	6.9	5	-
	MONTH	119.4	164	24	16	16.5	10.2	13.4	-1.4	7.5	18	0	278	84	108	72	2.9	18	0	15.2	-1.4	130.1	78	6.3	10	79
Fermoy (Coolnakilla) Co. Cork	1-10	59.5	-	10	9	15.1	9.1	12.1	-	6.9	2	0	77	-	23	-	4.9	2	0	-	-	N/A	-	N/A	-	-
	11-20	31.6	-	7	6	16.6	9.7	13.1	-	7.8	20	0	87	-	33	-	7.5	18	0	-	-	N/A	-	N/A	-	-
	21-END	60.1	-	11	8	16.5	9.7	13.1	-	7.2	29	0	96	-	37	-	4.7	29	0	-	-	N/A	-	N/A	-	-
	MONTH	151.2	-	28	23	16.1	9.5	12.8	-	6.9	2	0	260	-	93	-	4.7	29	0	-	-	N/A	-	N/A	-	N/A
Fermoy (Moore Park) Co. Cork	1-10	44.5	-	8	6	16.9	10.1	13.5	-	7.5	5	0	91	-	36	-	3.5	2	0	-	-	30.3	-	3.2	-	-
	11-20	27.6	-	5	4	17.9	10.6	14.2	-	7.5	20	0	98	-	43	-	1.5	20	0	-	-	33.4	-	3.0	-	-
	21-END	41.2	-	7	5	17.8	10.8	14.3	-	5.6	29	0	109	-	49	-	-0.9	29	1	-	-	64.0	-	3.8	-	-
	MONTH	113.3	189	20	15	17.5	10.5	14.0	-	5.6	29	0	298	-	128	-	-0.9	29	1	-	-	127.7	-	3.3	-	73
Roches Point Co. Cork	1-10	37.8	-	9	6	16.3	10.8	13.6	-	9.4	2	0	92	-	36	-	6.9	2	0	15.4	-	38.3	-	5.9	3	-
	11-20	20.9	-	3	2	17.0	10.8	13.9	-	8.3	18	0	95	-	39	-	4.4	18	0	15.8	-	32.7	-	6.1	3	-
	21-END	64.1	-	9	6	16.4	11.4	13.9	-	9.1	29	0	105	-	43	-	6.4	29	0	15.6	-	67.1	-	7.2	5	-
	MONTH	122.8	205	21	14	16.6	11.0	13.8	-1.3	8.3	18	0	291	85	119	75	4.4	18	0	15.6	-1.5	138.1	79	6.4	11	82
Glencolumbkille Co. Donegal	1-10	82.8	-	9	9	15.5	11.0	13.2	-	10.0	7	0	88	-	32	-	8.0	3	0	-	-	N/A	-	3.4	-	-
	11-20	49.0	-	10	6	15.7	10.6	13.1	-	8.8	12	0	87	-	32	-	5.5	13	0	-	-	N/A	-	3.7	-	-
	21-END	56.6	-	11	7	16.1	10.6	13.4	-	9.5	27	0	99	-	37	-	6.4	28	0	-	-	N/A	-	4.1	-	-
	MONTH	188.4	-	30	22	15.8	10.7	13.3	-	8.8	12	0	275	-	102	-	5.5	13	0	-	-	N/A	-	3.7	-	N/A

TABLE 1 (CONTINUED)

JULY 1988

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 ⁻¹)	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	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malin Head Co. Donegal	1-10	77.4	-	8	8	16.1	11.5	13.8	-	10.0	8	0	94	-	38	-	9.2	2	0	15.8	-	44.8	-	7.5	4	-	-	-	-	-	-	-	-	
	11-20	30.9	-	8	7	16.0	11.3	13.6	-	10.0	12	0	92	-	36	-	7.8	12	0	15.0	-	24.0	-	8.1	4	-	-	-	-	-	-	-	-	-
	21-END	39.8	-	10	6	15.7	10.8	13.2	-	8.7	28	0	97	-	36	-	4.5	24	0	14.8	-	66.2	-	8.2	5	-	-	-	-	-	-	-	-	-
	MONTH	148.1	185	26	21	15.9	11.2	13.5	-0.3	8.7	28	0	284	94	110	91	4.5	24	0	15.2	-0.4	135.0	99	7.9	13	80	-	-	-	-	-	-	-	
Casement Aerodrome Co. Dublin	1-10	25.4	-	10	6	17.5	10.2	13.9	-	8.2	9	0	95	-	40	-	5.8	9	0	15.6	-	41.5	-	6.3	2	-	-	-	-	-	-	-	-	-
	11-20	10.1	-	5	3	18.2	10.3	14.3	-	8.0	15	0	99	-	44	-	6.4	13	0	15.5	-	32.3	-	6.2	3	-	-	-	-	-	-	-	-	-
	21-END	62.7	-	11	10	18.2	10.5	14.3	-	8.3	31	0	109	-	49	-	6.9	29	0	15.2	-	57.3	-	7.1	5	-	-	-	-	-	-	-	-	-
	MONTH	98.2	182	26	19	18.0	10.3	14.2	-0.7	8.0	15	0	302	89	132	81	5.8	9	0	15.4	-	131.1	86	6.6	10	92	-	-	-	-	-	-	-	
Dublin Airport Co. Dublin	1-10	20.7	-	7	6	17.6	10.6	14.1	-	9.0	9	0	97	-	42	-	5.8	9	0	16.7	-	40.4	-	5.4	1	-	-	-	-	-	-	-	-	-
	11-20	12.7	-	5	4	18.4	11.0	14.7	-	8.8	13	0	103	-	48	-	6.5	13	0	17.1	-	35.2	-	5.5	1	-	-	-	-	-	-	-	-	-
	21-END	44.0	-	9	6	14.1	9.2	11.6	-	N/A	N/A	0	89	-	38	-	N/A	0	16.7	-	51.5	-	5.5	3	-	-	-	-	-	-	-	-	-	-
	MONTH	77.4	131	21	16	16.6	10.2	13.4	-1.6	N/A	N/A	0	289	85	128	81	N/A	0	16.9	-0.5	127.1	78	5.5	5	82	-	-	-	-	-	-	-	-	
Kinsealy Co. Dublin	1-10	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	N/A	-	N/A	-	N/A	-	-	-	-	-	-	-	-	-
	11-20	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	N/A	-	N/A	-	N/A	-	-	-	-	-	-	-	-	-
	21-END	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	N/A	-	N/A	-	N/A	-	-	-	-	-	-	-	-	-
	MONTH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	N/A	-	N/A	-	N/A	-	-	-	-	-	-	-	-	-
Galway Co. Galway	1-10	56.5	-	9	7	17.1	11.3	14.2	-	10.5	2	0	98	-	42	-	8.4	2	0	15.6	-	37.7	-	4.3	1	-	-	-	-	-	-	-	-	-
	11-20	29.4	-	4	4	16.8	11.7	14.3	-	10.8	15	0	99	-	43	-	6.9	15	0	15.4	-	27.9	-	4.2	0	-	-	-	-	-	-	-	-	-
	21-END	51.0	-	11	10	16.5	11.5	14.0	-	9.9	28	0	106	-	44	-	7.6	31	0	15.4	-	66.1	-	5.6	3	-	-	-	-	-	-	-	-	-
	MONTH	136.9	173	24	21	16.8	11.5	14.2	-0.6	9.9	28	0	302	-	129	-	6.9	15	0	15.5	-	131.7	90	4.7	4	80	-	-	-	-	-	-	-	
Killarney (Muckross House) Co. Kerry	1-10	61.5	-	8	7	15.8	10.8	13.3	-	8.0	5	0	89	-	34	-	7.2	4	0	-	-	17.1	-	-	-	-	-	-	-	-	-	-	-	-
	11-20	30.2	-	5	3	16.7	11.3	14.0	-	8.0	20	0	96	-	40	-	4.1	20	0	-	-	13.4	-	-	-	-	-	-	-	-	-	-	-	-
	21-END	62.8	-	10	8	16.2	11.5	13.9	-	10.2	31	0	104	-	42	-	7.5	27	0	-	-	N/A	-	-	-	-	-	-	-	-	-	-	-	-
	MONTH	154.5	176	23	18	16.2	11.2	13.7	-	8.0	5	0	289	-	116	-	4.1	20	0	-	-	N/A	-	-	-	-	-	-	-	-	-	-	-	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

JULY 1988

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 ⁻¹)	DAYS WITH GALE GUSTS			
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.0°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	50.1	-	9	7	16.1	10.8	13.5	-	7.2	5	0	91	-	35	-	4.3	5	0	15.5	-	32.0	-	5.8	4	-
	11-20	48.9	-	6	5	15.8	11.2	13.5	-	9.5	15	0	91	-	36	-	5.6	15	0	15.2	-	12.3	-	4.9	2	-
	21-END	42.3	-	8	6	16.3	11.4	13.8	-	10.2	31	0	104	-	42	-	7.9	31	0	15.5	-	51.2	-	5.6	2	-
	MONTH	141.3	164	23	18	16.1	11.1	13.6	-1.2	7.2	5	0	286	86	113	75	4.3	5	0	15.4	-1.7	95.5	66	5.5	8	66
Ardfert (Liscahane) Co. Kerry	1-10	68.0	-	8	8	16.5	10.3	13.4	-	8.4	5	0	90	-	34	-	4.6	4	0	-	-	51.6	-	-	-	-
	11-20	24.2	-	6	5	16.7	10.7	13.7	-	5.5	15	0	93	-	39	-	4.0	20	0	-	-	30.8	-	-	-	-
	21-END	31.1	-	8	7	16.9	11.1	14.0	-	8.5	31	0	105	-	44	-	3.4	31	0	-	-	54.3	-	-	-	-
	MONTH	123.3	-	22	20	16.7	10.7	13.7	-	5.5	15	0	288	-	117	-	3.4	31	0	-	-	136.7	-	-	-	-
Lullymore Co. Kildare	1-10	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	N/A	-	-	N/A	-	N/A	-	-	
	11-20	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	N/A	-	-	N/A	-	N/A	-	-	
	21-END	N/A	-	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	N/A	-	-	N/A	-	N/A	-	-	
	MONTH	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	N/A	-	-	N/A	-	N/A	-	N/A	
Kilkenny Co. Kilkenny	1-10	42.7	-	9	6	17.4	10.2	13.8	-	7.0	2	0	94	-	39	-	3.0	5	0	15.7	-	25.3	-	3.4	0	-
	11-20	20.1	-	4	4	18.5	10.4	14.5	-	7.6	15	0	101	-	46	-	4.2	13	0	15.9	-	26.8	-	3.3	0	-
	21-END	33.3	-	9	6	18.5	10.7	14.6	-	6.5	31	0	112	-	53	-	3.6	31	0	15.8	-	50.8	-	4.4	2	-
	MONTH	96.1	163	22	16	18.1	10.4	14.3	-0.9	6.5	31	0	307	90	138	83	3.0	5	0	15.8	-2.2	102.9	71	3.7	2	74
Mooncoin (Silverspring) Co. Kilkenny	1-10	58.4	-	8	8	17.1	10.2	13.7	-	7.8	9	0	93	-	38	-	2.5	9	0	-	-	23.0	-	-	-	-
	11-20	18.9	-	6	3	18.1	10.1	14.1	-	7.9	20	0	97	-	43	-	1.5	15	0	-	-	30.2	-	-	-	-
	21-END	49.7	-	10	6	18.1	10.9	14.5	-	6.2	29	0	111	-	51	-	0.8	29	0	-	-	N/A	-	-	-	-
	MONTH	127.0	208	24	17	17.8	10.4	14.1	-	6.2	29	0	300	-	132	-	0.8	29	0	-	-	N/A	-	-	-	-
Ballinamore Co. Leitrim	1-10	58.8	-	9	8	16.9	9.9	13.4	-	7.4	9	0	90	-	35	-	2.5	9	0	-	-	29.3	-	2.6	-	-
	11-20	22.1	-	7	5	16.5	10.0	13.3	-	8.2	13	0	89	-	33	-	4.0	13	0	-	-	20.9	-	2.6	-	-
	21-END	64.3	-	10	9	16.7	9.9	13.3	-	8.4	27	0	98	-	38	-	3.4	24	0	-	-	53.6	-	2.9	-	-
	MONTH	145.2	177	26	22	16.7	9.9	13.3	-	7.4	9	0	277	-	107	-	2.5	9	0	-	-	103.8	-	2.7	-	61
Ardee (Boharnamoe) Co. Louth	1-10	29.6	-	7	6	18.6	9.6	14.1	-	7.3	9	0	97	-	43	-	2.9	8	0	-	-	-	-	-	-	-
	11-20	10.9	-	3	2	19.1	8.7	13.9	-	6.9	16	0	95	-	42	-	3.5	15	0	-	-	-	-	-	-	-
	21-END	44.4	-	10	8	18.2	9.5	13.8	-	6.8	30	0	104	-	45	-	1.6	30	0	-	-	-	-	-	-	-
	MONTH	84.9	129	20	16	18.6	9.3	14.0	-	6.8	30	0	296	-	131	-	1.6	30	0	-	-	-	-	-	-	-

TABLE 1 (CONTINUED)

JULY 1988

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 ⁻¹)	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	47.5	-	10	8	16.3	10.3	13.3	-	9.4	2	0	89	-	33	-	6.4	5	0	-	-	26.6	-	3.3	-	-
	11-20	23.0	-	5	4	16.9	10.5	13.7	-	8.9	15	0	93	-	37	-	5.4	15	0	-	-	21.3	-	2.9	-	-
	21-END	48.7	-	9	8	16.7	9.9	13.3	-	7.5	31	0	98	-	38	-	3.5	31	0	-	-	53.9	-	3.9	-	-
	MONTH	119.2	161	24	20	16.6	10.2	13.4	-	7.5	31	0	280	-	108	-	3.5	31	0	-	-	101.8	-	3.3	-	62
Belmullet Co. Mayo	1-10	61.8	-	9	9	15.2	10.9	13.0	-	9.6	9	0	86	-	30	-	7.8	9	0	15.7	-	36.8	-	6.6	2	-
	11-20	22.7	-	8	5	15.7	10.8	13.2	-	9.0	12	0	88	-	33	-	6.4	12	0	15.3	-	20.4	-	6.3	1	-
	21-END	48.1	-	10	8	15.8	10.8	13.3	-	9.4	28	0	98	-	36	-	6.1	28	0	15.5	-	63.1	-	7.1	4	-
	MONTH	132.6	184	27	22	15.6	10.8	13.2	-0.9	9.0	12	0	272	88	99	76	6.1	28	0	15.5	-0.9	120.3	86	6.7	7	72
Claremorris Co. Mayo	1-10	47.9	-	9	8	16.3	10.0	13.2	-	9.4	2	0	88	-	32	-	7.5	9	0	15.4	-	27.6	-	4.1	1	-
	11-20	19.3	-	8	3	16.7	10.0	13.4	-	8.5	15	0	90	-	34	-	5.9	15	0	15.0	-	18.9	-	3.8	0	-
	21-END	57.4	-	11	9	16.9	10.2	13.6	-	7.2	31	0	101	-	41	-	2.5	31	0	15.0	-	41.4	-	4.6	2	-
	MONTH	124.6	166	28	20	16.7	10.1	13.4	-0.9	7.2	31	0	278	88	107	76	2.5	31	0	15.1	-1.0	87.9	72	4.2	3	60
Glenamoy Co. Mayo	1-10	73.6	-	10	9	15.2	10.7	12.9	-	9.6	8	0	85	-	30	-	7.5	9	0	-	-	30.8	-	3.2	-	-
	11-20	27.4	-	8	5	15.6	10.5	13.1	-	7.8	15	0	87	-	32	-	6.2	15	0	-	-	15.0	-	4.3	-	-
	21-END	57.2	-	11	10	16.0	10.3	13.2	-	8.4	31	0	96	-	35	-	7.3	28	0	-	-	55.7	-	4.4	-	-
	MONTH	158.2	176	29	24	15.6	10.5	13.0	-	7.8	15	0	268	-	97	-	6.2	15	0	-	-	101.5	-	3.9	-	57
Dunsany (Grange) Co. Meath	1-10	25.6	-	8	7	17.1	9.8	13.5	-	7.6	2	0	91	-	36	-	3.0	5	0	-	-	39.4	-	-	-	-
	11-20	11.8	-	5	1	17.5	10.0	13.7	-	8.1	13	0	93	-	39	-	2.4	13	0	-	-	23.3	-	-	-	-
	21-END	43.7	-	10	9	17.3	10.0	13.7	-	6.8	31	0	102	-	42	-	4.4	20	N/A	-	-	39.1	-	-	-	-
	MONTH	81.1	121	23	17	17.3	9.9	13.6	-	6.8	31	0	286	-	118	-	2.4	13	N/A	-	-	101.8	-	-	-	-
Clones Co. Monaghan	1-10	62.1	-	9	8	16.8	10.4	13.6	-	7.9	9	0	92	-	37	-	4.2	9	0	15.3	-	37.4	-	4.5	1	-
	11-20	19.8	-	7	4	16.8	10.5	13.7	-	8.4	13	0	93	-	37	-	3.3	13	0	14.8	-	24.6	-	4.4	1	-
	21-END	56.1	-	10	8	16.7	10.4	13.6	-	8.3	31	0	101	-	40	-	4.2	31	0	14.7	-	53.1	-	4.8	4	-
	MONTH	138.0	192	26	20	16.8	10.4	13.6	-0.8	7.9	9	0	285	89	114	80	3.3	13	0	14.9	-1.5	115.1	92	4.6	6	73
Birr Co. Offaly	1-10	49.0	-	8	7	17.3	9.9	13.6	-	7.2	5	0	92	-	37	-	4.0	5	0	16.4	-	30.9	-	2.8	1	-
	11-20	15.6	-	5	3	17.3	10.6	14.0	-	7.7	15	0	96	-	40	-	4.8	15	0	15.9	-	24.1	-	2.9	0	-
	21-END	31.4	-	9	9	17.2	10.7	14.0	-	8.3	31	0	105	-	44	-	5.7	31	0	15.8	-	43.4	-	3.7	3	-
	MONTH	96.0	141	22	19	17.3	10.4	13.8	-1.0	7.2	5	0	293	87	122	78	4.0	5	0	16.0	-1.4	98.4	73	3.1	4	65

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

JULY 1988

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 ⁻¹)	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		
Dundrum (Knockavilla) Co. Tipperary	1-10	57.1	-	10	8	17.2	9.9	13.5	-	7.4	5	0	91	-	37	-	4.0	5	0	-	-	-	-	-	-	-	-	-
	11-20	16.6	-	5	3	17.8	10.3	14.0	-	7.4	20	0	96	-	42	-	4.5	13	0	-	-	-	-	-	-	-	-	-
	21-END	37.4	-	11	9	17.5	10.5	14.0	-	6.1	31	0	106	-	46	-	4.8	31	0	-	-	-	-	-	-	-	-	-
	MONTH	111.1	-	26	20	17.5	10.2	13.9	-	6.1	31	0	294	-	124	-	4.0	5	0	-	-	-	-	-	-	-	-	-
Dungarvan (Carriglea) Co. Waterford	1-10	55.1	-	10	8	18.0	10.3	14.2	-	8.0	5	0	98	-	42	-	3.1	5	0	-	-	30.3	-	2.5	-	-	-	-
	11-20	30.3	-	4	3	18.9	10.7	14.8	-	7.9	18	0	104	-	49	-	2.0	18	0	-	-	26.6	-	2.4	-	-	-	-
	21-END	69.3	-	8	7	18.5	10.6	14.5	-	6.8	21	0	112	-	52	-	1.9	21	0	-	-	60.8	-	3.4	-	-	-	-
	MONTH	154.7	231	22	18	18.5	10.5	14.5	-	6.8	21	0	313	-	143	-	1.9	21	0	-	-	117.7	-	2.8	-	66	-	-
Mullingar Co. Westmeath	1-10	58.8	-	9	8	16.9	10.1	13.5	-	8.4	2	0	91	-	36	-	6.7	9	0	15.5	-	40.3	-	4.2	1	-	-	-
	11-20	22.5	-	6	4	16.8	10.4	13.6	-	8.4	13	0	92	-	37	-	6.8	13	0	15.1	-	23.6	-	3.9	0	-	-	-
	21-END	46.7	-	10	8	17.0	10.1	13.6	-	6.3	31	0	101	-	41	-	5.2	31	0	15.0	-	52.3	-	4.8	3	-	-	-
	MONTH	128.0	178	25	20	16.9	10.2	13.5	-0.8	6.3	31	0	284	86	114	75	5.2	31	0	15.2	-1.5	116.2	84	4.3	4	72	-	-
J.F.K. Park Co. Wexford	1-10	73.6	-	9	9	16.2	10.1	13.1	-	8.4	2	0	87	-	32	-	4.0	9	0	-	-	27.0	-	3.8	-	-	-	-
	11-20	27.3	-	5	4	17.6	10.2	13.9	-	7.4	15	0	95	-	40	-	0.6	18	0	-	-	27.6	-	3.0	-	-	-	-
	21-END	61.1	-	9	7	17.0	11.0	14.0	-	7.0	29	0	105	-	45	-	2.6	27	0	-	-	54.9	-	6.0	-	-	-	-
	MONTH	162.0	242	23	20	16.9	10.4	13.7	-	7.0	29	0	288	-	118	-	0.6	18	0	-	-	109.5	-	4.3	-	67	-	-
Clonroche Co. Wexford	1-10	65.2	-	8	7	16.6	9.2	12.9	-	1.1	7	0	85	-	33	-	1.9	6	0	-	-	40.2	-	2.1	-	-	-	-
	11-20	33.2	-	7	5	18.1	10.2	14.1	-	9.1	15	0	97	-	42	-	3.1	12	0	-	-	35.9	-	2.0	-	-	-	-
	21-END	77.1	-	9	8	17.5	11.4	14.5	-	7.4	29	0	111	-	50	-	3.4	29	0	-	-	58.0	-	2.7	-	-	-	-
	MONTH	175.5	228	24	20	17.4	10.3	13.8	-	1.1	7	0	293	-	125	-	1.9	6	0	-	-	134.1	-	2.3	-	67	-	-
Johnstown Castle Co. Wexford	1-10	42.9	-	8	8	16.3	10.3	13.3	-	8.5	2	0	89	-	34	-	3.2	6	0	-	-	N/A	-	1.9	-	-	-	-
	11-20	35.3	-	5	3	17.3	10.5	13.9	-	7.7	18	0	95	-	40	-	1.4	18	0	-	-	N/A	-	1.7	-	-	-	-
	21-END	58.7	-	10	5	16.7	10.7	13.7	-	7.4	29	0	102	-	42	-	5.4	27	0	-	-	N/A	-	N/A	-	-	-	-
	MONTH	136.9	196	23	16	16.7	10.5	13.6	-	7.4	29	0	286	-	116	-	1.4	18	0	-	-	N/A	-	N/A	-	N/A	-	N/A
Rosslare Co. Wexford	1-10	36.9	-	8	6	16.3	11.0	13.7	-	9.5	2	0	93	-	37	-	7.0	9	0	15.9	-	51.8	-	6.1	3	-	-	-
	11-20	34.0	-	4	2	17.1	11.2	14.1	-	8.7	18	0	98	-	42	-	5.3	18	0	16.3	-	36.9	-	5.3	1	-	-	-
	21-END	45.5	-	8	8	16.6	11.7	14.2	-	9.0	29	0	107	-	46	-	6.3	29	0	16.3	-	67.1	-	6.8	5	-	-	-
	MONTH	116.4	197	20	16	16.7	11.3	14.0	-1.1	8.7	18	0	298	88	125	80	5.3	18	0	16.2	-2.0	155.8	80	6.1	9	88	-	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 2 GLOBAL RADIATION

STATION	PERIOD	AMOUNT MJ/m ²
Malin Head Co. Donegal	1-10	158.67
	11-20	145.94
	21-end	191.26
	Month	495.87
Dublin Airport Co. Dublin	1-10	163.99
	11-20	135.17
	21-end	176.50
	Month	475.66
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	162.84
	11-20	120.39
	21-end	174.65
	Month	457.88
Kilkenny Co. Kilkenny	1-10	156.58
	11-20	146.38
	21-end	184.27
	Month	487.23
Belmullet Co. Mayo	1-10	142.17
	11-20	130.00
	21-end	N/A
	Month	N/A
Clones Co. Monaghan	1-10	150.87
	11-20	126.93
	21-end	162.30
	Month	440.10
Birr Co. Offaly	1-10	161.05
	11-20	134.46
	21-end	169.54
	Month	465.05

Notes on the tables in January issue

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

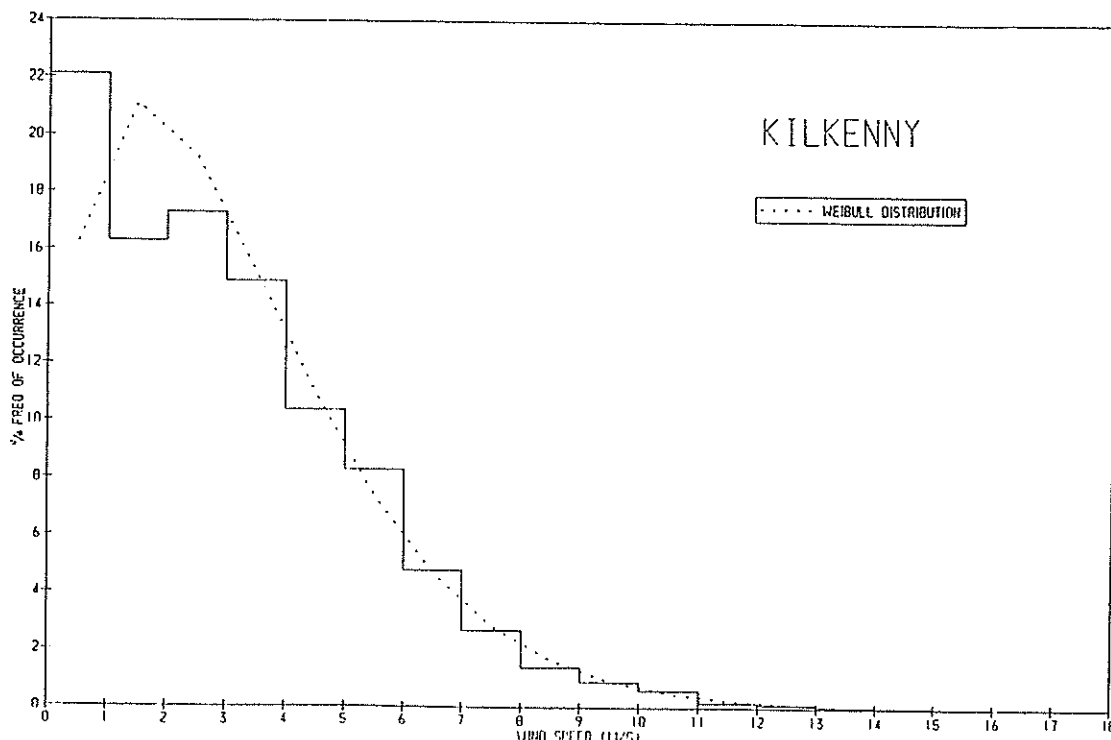
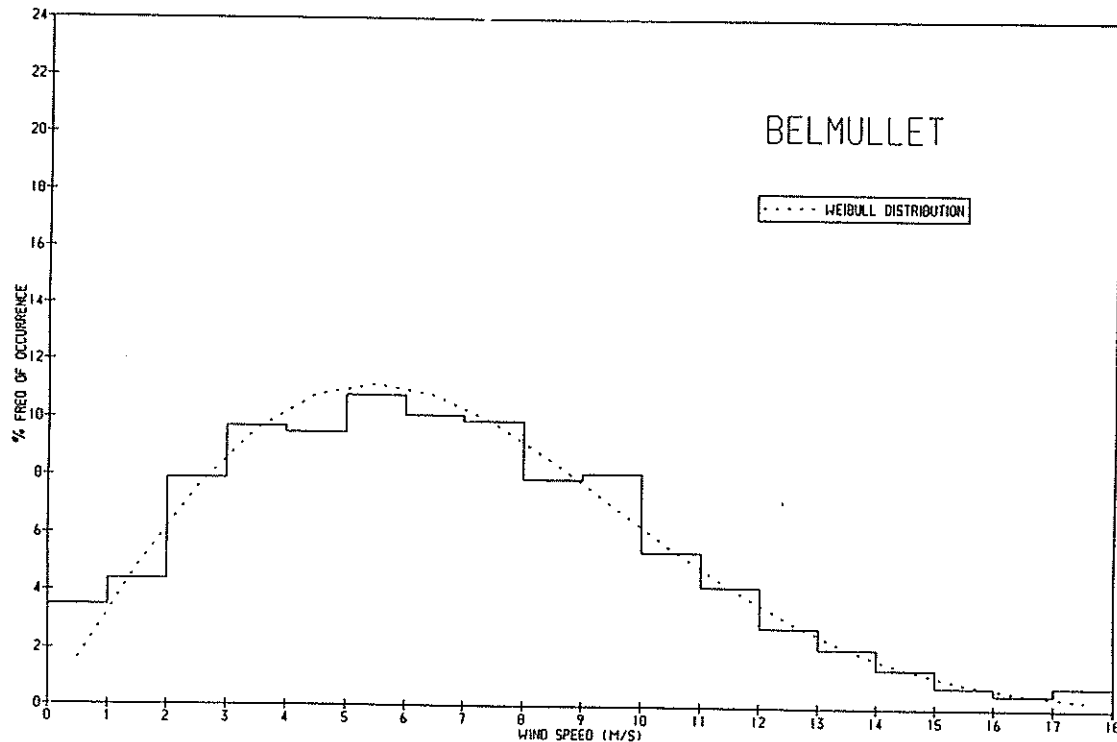
STATION	PERIOD	P.E. (mm)		SOIL MOISTURE (mm)	
		Amount	Deficit	Accumulated Deficit	Surplus
Carlow (Oak Park) Co. Carlow	1-10	13.6	-	0	35
	11-20	23.6	5	5	-
	21-end	18.2	-	0	23
	Month	55.4	-	-	-
Kinsealy Co. Dublin	1-10				
	11-20				
	21-end	N/A	N/A	N/A	N/A
	Month				
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	3.6	-	0	49
	11-20	5.2	-	0	44
	21-end	14.8	-	0	30
	Month	23.6	-	-	-
Ballinamore Co. Leitrim	1-10	16.6	-	13	-
	11-20	14.1	-	5	-
	21-end	(-5.7)	-	0	50
	Month	-	-	-	-
Glenamoy Co. Mayo	30-10	49.9	-	5	-
	11-20	8.9	-	0	18
	21-end	36.7	-	0	18
	Month	94.7	-	0	-
Johnstown Castle Co. Wexford	1-10	33.6	-	34	-
	11-20	38.0	3	37	-
	21-end	38.3	-	14	-
	Month	109.9	-	-	-

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	17.6	16.0	14.0	-0.14
	11-20	16.7	15.4	13.2	-0.28	73.9	67.1
	21-end	16.9	15.4	12.8	-0.32	70.7	70.0
Mineral	1-10	18.0	15.2	13.2	-0.07	106.5	112.2
	11-20	16.8	14.8	12.5	-0.07	111.0	74.5
	21-end	17.4	14.7	12.3	-0.02	112.2	95.0

Wind Speed Frequency Distribution

The range of windiness near sea level in Ireland is demonstrated by histograms for two relatively well-exposed sites, where wind speeds were measured at an effective height of 10 metres above the ground. Calms and very light winds were grouped together in the 0.5metre / second category. The 2 parameter Weibull distribution is widely used to summarise long term wind speed data, as shown by the broken line on each histogram. ($1\text{m/s} = 1.94\text{ knots} = 2.23\text{ m.p.h}$)



Belmullet , Co Mayo near the west coast

9 metres above mean sea level

Kilkenny City, in the Nore Valley

63 metres above mean sea level

The mean annual wind speeds for the 10 year periods in question were 6.8 m/s at Belmullet and 3.0 m/s at Kilkenny.