

AUGUST 1987  
AGROMETEOROLOGICAL BULLETIN

The Weather of August

Apart from the intermittent (4/5th, 9th) influence of high pressure, low pressure to the east of Britain was dominant during the early part of the month, producing northwest to northeast winds and occasional rainbelts over Ireland. Subsequent to 9th conditions were controlled by Atlantic depressions: these induced increased south to southwesterly winds over the country. Mild and humid conditions prevailed with spells of rain, drizzle and later fog (and thunder on 17th) as winds eased; southern and eastern regions were more under the influence of high pressure extending from Europe. With the decline of the high a rainbelt affected all areas on 20th, the southwards clearance of which gave way to a slack but complex trough. This trough in turn induced a northwesterly airflow in its wake on 23rd and high pressure on 24th. A depression moving from Europe towards Britain induced a northeast airflow with attendant troughs over Ireland on 25th/26th. This system receded, however, as high pressure extended northwards from the Azores on 27th/28th. This high later drifted to the North Sea and thundery troughs approached the country from Biscay to affect most areas but particularly the south and east.

**Precipitation:**

Amounts were above normal in the northern half of the country (except extreme north) and below normal elsewhere. Amounts varied from 146% of normal at Ballinamore to 45% at Shannon Airport. Wettest days were 1st, 11th/12th, 17th, 20th, 25th and 31st. Large soil moisture deficits developed in southern and southeastern areas but these were considerably reduced on the final day of the month.

**Temperature:**

Mean air temperature was above normal everywhere varying from 0.9C° above at Mullingar to 0.2C° above at Valentia and Belmullet; the positive anomalies were due to both high maximum and minimum values everywhere, the minima being especially high in the north and west and the day-time maxima high elsewhere. Ground frost was reported at least once at almost half of the stations, but on 8 days at Killarney and Lullymore.

**Sunshine and Radiation:**

Sunshine amounts were below to well below normal almost everywhere varying from a minimum of 65% of normal at Belmullet to 94% at southern stations but 103% at Valentia. The final decade tended to be brightest and the second decade was dullest. Global radiation was 91% at Dublin Airport and 108% at Valentia.

**Wind:**

Strong winds with gale gusts were most widespread on 12th, 20th and 26th.

**Summary:**

Generally a good month for farming — good growth and moderately good ripening and harvesting conditions. It was warm, dull and generally dry. However it tended to be somewhat wetter north of a line Dublin to Belmullet, being more persistently unsettled in extreme northwest.





TABLE 1 (CONTINUED)

AUGUST 1987

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 (m/s)	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
Cahirciveen (Valentia Obsy.) Co. Kerry	1-10	21.8	-	5	3	17.3	10.2	13.7	-	7.0	5	0	93	-	40	-	3.5	5	0	17.4	-	52.4	-	3.5	0	-
	11-20	41.4	-	7	5	19.2	14.4	16.8	-	10.9	18	0	124	-	68	-	8.0	18	0	18.2	-	30.2	-	5.0	2	-
	21-END	2.5	-	2	1	18.7	11.6	15.1	-	7.8	25	0	118	-	57	-	4.0	23	0	18.0	-	69.6	-	3.4	1	-
	MONTH	65.7	67	14	9	18.4	12.0	15.2	+0.2	7.0	5	0	335	99	165	104	3.5	5	0	17.9	+1.4	152.2	103	3.9	3	62
Ardfert (Liscahane) Co. Kerry	1-10	18.1	-	4	4	17.6	8.9	13.3	-	3.2	7	0	89	-	38	-	-0.6	7	1	-	-	53.8	-	-	-	-
	11-20	19.8	-	6	4	21.3	14.4	17.8	-	10.0	18	0	134	-	78	-	7.4	13	0	-	-	53.4	-	-	-	-
	21-END	3.0	-	4	2	19.0	10.3	14.7	-	6.1	23	0	113	-	54	-	2.6	24	0	-	-	67.7	-	-	-	-
	MONTH	40.9	-	14	10	19.3	11.2	15.2	-	3.2	7	0	336	-	171	-	-0.6	7	1	-	-	174.9	-	-	-	-
Lullymore Co. Kildare	1-10	19.0	-	4	3	17.2	6.5	11.9	-	1.8	7	0	76	-	29	-	-4.5	7	5	-	-	41.3	-	3.2	-	-
	11-20	34.1	-	5	5	21.2	12.9	17.1	-	10.2	13	0	127	-	71	-	2.1	13	0	-	-	33.2	-	3.3	-	-
	21-END	25.6	-	5	3	18.7	9.3	14.0	-	4.7	25	0	106	-	49	-	-0.5	27	3	-	-	38.8	-	2.9	-	-
	MONTH	78.7	101	14	11	19.0	9.6	14.3	-	1.8	7	0	308	-	149	-	-4.5	7	8	-	-	113.3	-	3.1	-	50
Kilkenny Co. Kilkenny	1-10	6.1	-	2	1	18.9	8.3	13.6	-	4.2	7	0	92	-	42	-	-0.7	6	4	17.1	-	45.7	-	2.8	0	-
	11-20	38.2	-	5	4	21.6	12.7	17.1	-	9.0	13	0	127	-	72	-	5.2	13	0	16.8	-	33.4	-	2.8	0	-
	21-END	29.2	-	3	3	19.8	10.8	15.3	-	6.6	31	0	120	-	60	-	3.2	23	0	17.1	-	53.8	-	2.5	0	-
	MONTH	73.5	111	10	8	20.1	10.6	15.3	+0.4	4.2	7	0	339	101	174	107	-0.7	6	4	17.0	+0.1	132.9	89	2.7	0	64
Mooncoin (Silverspring) Co. Kilkenny	1-10	11.9	-	2	2	19.0	8.7	13.8	-	3.5	6	0	94	-	44	-	-2.5	6	4	-	-	55.0	-	-	-	-
	11-20	23.1	-	7	4	20.7	12.6	16.6	-	9.5	14	0	122	-	66	-	2.6	14	0	-	-	45.9	-	-	-	-
	21-END	25.5	-	3	2	19.7	11.2	15.4	-	6.4	31	0	121	-	61	-	2.0	28	0	-	-	55.8	-	-	-	-
	MONTH	60.5	79	12	8	19.8	10.8	15.3	-	3.5	6	0	338	-	171	-	-2.5	6	4	-	-	156.7	-	-	-	-
Ballinamore Co. Leitrim	1-10	16.9	-	7	4	16.9	8.1	12.5	-	4.5	6	0	81	-	31	-	-2.0	6	4	-	-	38.9	-	1.8	-	-
	11-20	121.3	-	8	7	20.3	13.1	16.7	-	10.7	11	0	123	-	67	-	7.1	19	0	-	-	21.6	-	2.0	-	-
	21-END	3.2	-	3	1	19.2	10.0	14.6	-	4.4	25	0	112	-	53	-	1.5	27	0	-	-	52.4	-	2.4	-	-
	MONTH	141.4	146	18	12	18.8	10.4	14.6	-	4.4	25	0	316	-	151	-	-2.0	6	4	-	-	112.9	-	2.1	-	52
Ardee (Boharnamoe) Co. Louth	1-10	16.1	-	4	3	17.9	7.2	12.5	-	1.7	5	0	83	-	34	-	N/A	N/A	-	-	-	-	-	-	-	-
	11-20	37.7	-	6	4	22.9	13.5	18.2	-	11.0	18	0	138	-	82	-	N/A	N/A	-	-	-	-	-	-	-	-
	21-END	27.7	-	4	2	20.2	11.2	15.7	-	3.5	25	0	125	-	66	-	N/A	N/A	-	-	-	-	-	-	-	-
	MONTH	81.5	107	14	9	20.3	10.6	15.5	-	1.7	5	0	345	-	181	-	N/A	N/A	-	-	-	-	-	-	-	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

AUGUST 1987

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
Bellinrobe (Creagh) Co. Mayo	1-10	7.3	-	3	2	17.1	8.5	12.8	-	6.0	7	0	84	-	32	-	-1.0	7	2	-	-	38.8	-	2.2	-	-
	11-20	100.2	-	7	6	19.7	13.3	16.5	-	7.7	11	0	121	-	66	-	7.4	11	0	-	-	28.9	-	3.2	-	-
	21-END	2.5	-	3	1	19.2	10.2	14.7	-	6.9	25	0	113	-	54	-	0.5	24	0	-	-	57.0	-	1.8	-	-
	MONTH	110.0	112	13	9	18.7	10.6	14.7	-	6.0	7	0	318	-	151	-	-1.0	7	2	-	-	124.7	-	2.4	-	53
Belmullet Co. Mayo	1-10	21.3	-	5	4	16.4	10.0	13.2	-	7.3	5	0	88	-	34	-	3.2	5	0	15.9	-	39.4	-	4.5	0	-
	11-20	72.6	-	10	7	18.1	13.6	15.9	-	9.4	18	0	115	-	59	-	6.9	18	0	16.5	-	21.5	-	6.3	2	-
	21-END	7.1	-	8	2	17.6	11.7	14.7	-	9.3	24	0	113	-	51	-	4.6	24	0	16.3	-	41.2	-	4.6	0	-
	MONTH	101.0	115	23	13	17.4	11.8	14.6	+0.2	7.3	5	0	315	99	144	104	3.2	5	0	16.2	+0.2	102.1	65	5.1	2	53
Claremorris Co. Mayo	1-10	12.8	-	5	4	17.5	8.4	13.0	-	5.0	7	0	86	-	35	-	2.5	4	0	15.6	-	36.4	-	2.8	0	-
	11-20	83.2	-	7	6	20.3	13.8	17.1	-	10.7	18	0	127	-	71	-	6.0	14	0	16.9	-	22.3	-	4.1	1	-
	21-END	2.4	-	2	1	19.3	10.0	14.6	-	7.8	24	0	112	-	53	-	4.9	25	0	16.3	-	43.1	-	2.6	0	-
	MONTH	98.4	106	14	11	19.0	10.7	14.9	+0.8	5.0	7	0	324	103	158	113	2.5	4	0	16.2	+0.7	101.8	78	3.2	1	51
Glenamoy Co. Mayo	1-10	21.7	-	4	4	16.0	9.5	12.7	-	4.6	5	0	83	-	30	-	1.8	5	0	-	-	36.8	-	0.2	-	-
	11-20	79.1	-	7	7	18.3	13.6	15.9	-	9.6	18	0	115	-	59	-	6.4	18	0	-	-	19.9	-	0.4	-	-
	21-END	5.0	-	2	2	17.6	10.9	14.3	-	7.8	24	0	109	-	48	-	5.1	24	0	-	-	44.1	-	0.2	-	-
	MONTH	105.8	101	13	13	17.3	11.3	14.3	-	4.6	5	0	307	-	138	-	1.8	5	0	-	-	100.8	-	0.3	-	41
Dunsany (Grange) Co. Meath	1-10	19.5	-	5	3	16.9	7.7	12.3	-	3.2	6	0	79	-	31	-	-2.4	7	4	-	-	39.4	-	-	-	-
	11-20	40.8	-	6	5	20.7	13.6	17.2	-	11.0	13	0	128	-	72	-	6.3	12	0	-	-	27.6	-	-	-	-
	21-END	20.2	-	5	3	18.4	10.5	14.5	-	7.6	23	0	111	-	51	-	2.4	25	0	-	-	42.0	-	-	-	-
	MONTH	80.5	106	16	11	18.7	10.6	14.6	-	3.2	6	0	318	-	153	-	-2.4	7	4	-	-	109.0	-	-	-	-
Clones Co. Monaghan	1-10	8.9	-	4	1	16.8	8.6	12.7	-	5.3	10	0	83	-	32	-	-0.4	10	1	14.8	-	42.4	-	2.2	0	-
	11-20	84.0	-	9	4	20.1	14.0	17.1	-	12.5	14	0	127	-	71	-	6.8	14	0	16.6	-	20.9	-	2.5	1	-
	21-END	11.6	-	5	2	19.1	10.9	15.0	-	5.0	25	0	117	-	57	-	1.1	25	0	16.1	-	47.6	-	2.0	0	-
	MONTH	104.5	122	18	7	18.7	11.2	14.9	+0.7	5.0	25	0	327	103	159	113	-0.4	10	1	15.8	+0.1	110.9	88	2.2	1	54
Birr Co. Offaly	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	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	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	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES ON THE TABLES IN JANUARY ISSUE



TABLE 2 GLOBAL RADIATION

STATION	PERIOD	AMOUNT MJ/m <sup>2</sup>
Malin Head Co. Donegal	1-10	150.86
	11-20	106.96
	21-end	136.23
	Month	394.05
Dublin Airport Co. Dublin	1-10	138.47
	11-20	119.28
	21-end	131.15
	Month	388.90
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	165.23
	11-20	119.38
	21-end	183.23
	Month	467.84
Kilkenny Co. Kilkenny	1-10	169.47
	11-20	129.30
	21-end	152.80
	Month	451.57
Belmullet Co. Mayo	1-10	135.74
	11-20	99.83
	21-end	131.86
	Month	367.43
Clones Co. Monaghan	1-10	143.15
	11-20	93.78
	21-end	139.15
	Month	376.08
Birr Co. Offaly	1-10	146.50
	11-20	126.09
	21-end	138.38
	Month	410.97

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	27.1	20	46	-
	11-19	22.2	7	53	-
	20-30	20.6	-14	39	-
	Month *	69.9	-	-	-
Kinsealy Co. Dublin	1-9	22.2	-3	69	-
	10-19	22.6	-20	49	-
	20-30*	23.1	-2	47	-
	Month	67.9	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	13.9	1	17	-
	11-20	14.1	-39	0	-
	21-end	11.6	8	8	-
	Month	39.6	-	-	-
Ballinamore Co. Leitrim	1-10	19.1	0	39	-
	11-20	overflow	-	0	-
	21-end	13.7	9	9	-
	Month	-	-	-	-
Glenamoy Co. Mayo	1-10	21.2	-1	0	-
	11-20	20.9	-58	0	-
	21-end	14.5	10	10	-
	Month	56.6	-	-	-
Johnstown Castle Co. Wexford	1-9	23.2	18	67	-
	10-20	25.9	-19	48	-
	21-30*	21.1	0	48	-
	Month	70.2	-	-	-

\* Cut-off on 30th due to very heavy rain on 31st.

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	16.8	15.0	13.0	0.0
11-20	18.7		17.0	15.0	-0.5	117	110
21-end	17.8		16.5	14.5	0.0	94	80
Mineral	1-10	16.4	14.4	12.6	-0.2	362	172
	11-20	19.5	16.9	15.0	-0.3	354	276
	21-end	19.2	16.9	14.3	-0.3	185	100

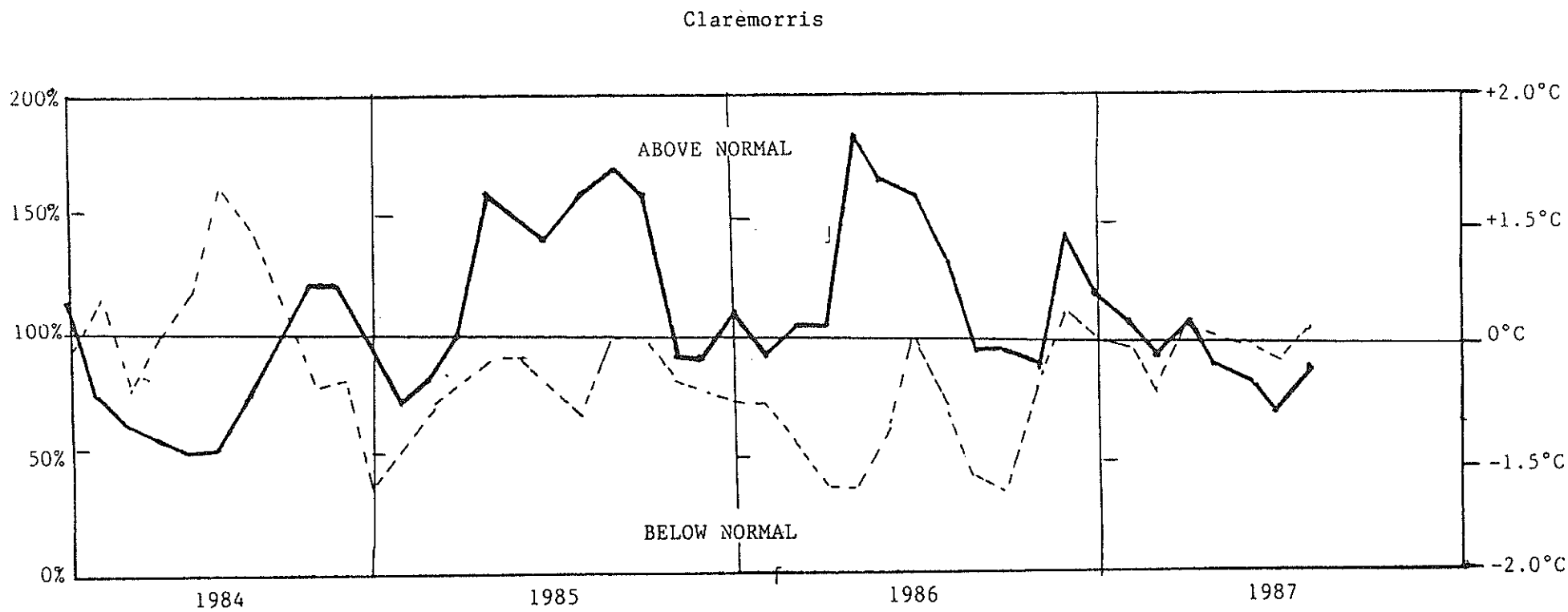


Fig 6 3-month running means of precipitation (solid-line) and temperature (dashed-line) anomalies at Claremorris for years, 1984-1987. The very dry and warm conditions of 1984 were followed by cold winters and the wet summer seasons of 1985 and 1986 accompanied by low temperatures, particularly during 1986. Conditions during the current year are tending to be near but slightly below average with respect to both parameters.