



AGROMETEOROLOGICAL BULLETIN

The Weather of August 1989

Summary

1st- 4th : High pressure with a little drizzle
5th - 16th : Unsettled and wet in a westerly airflow
17th - 25th : High pressure but yielding to troughs
26th - end : Unsettled and changeable
Month : Warm, wet and dull

Meteorological Situation

While under the influence of Atlantic high pressure from 1st to 4th winds were light over Ireland although some spells of drizzle and mist occurred. A series of Atlantic troughs followed in a westerly airflow. This spell culminated with an intensifying Atlantic depression off the west of Scotland giving a strong southwesterly airflow and squally showers on 15th/16th. Subsequently conditions improved under the influence of the Azores/ Scandanavian high pressure although mild southerly winds returned to the country on 19th/20th and a rainbelt followed in westerly winds on 21st. Thereafter troughs were held to the north of the country. The high temporarily declined on 26th so that a low pressure centre moved down over England and a northerly airflow set in over Ireland. This was followed by a ridge on 27th. Unsettled conditions and mild southwest winds set in, which culminated in heavy rain from an active front on 30th.

Precipitation

Monthly precipitation was above to well above normal except in southeast and parts of midwest. amounts varied from 190% of normal at Kilkenny and Belmullet to 82% at J.F.K. Park. Wettest days were 5th, 9th, 13th, 14th, 20th, 25th and 30th. The anomalously high rainfall at Kilkenny for instance was mainly due to wet days on 5th (9mm), 9th (34mm), 13th, (24mm), 14th (8mm) and 30th (39mm). Soil moisture deficits were substantially reduced during the month.

Sunshine and Radiation

Hours of bright sunshine were distributed fairly uniformly through the month and varied from 65% of normal at Malin Head to 95% of normal at Clones and Casement except for 105% of normal at Rosslare. Global radiation varied from 96% of normal at Valentia to 85% of normal at Birr.

Temperature

Mean air temperature was above normal varying from 1.1°C above at Dublin and Shannon Airports to 0.3°C above at Belmullet and Clones. The positive anomalies were due particularly to high night time minimum values in the west and high day-time values in the east (*see figures*). Coldest night occurred on 28th.

Wind

Strong winds with gale gusts occurred on 15th/16th, 21st

TABLE 1

AUGUST 1989

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	32.3	-	7	6	21.4	12.6	17.0	-	5.8	1	0	126	-	72	-	3.0	1	0	-	-	19.7	-	0.4	-	-
	11-20	34.5	-	6	6	19.6	11.0	15.3	-	8.8	18	0	109	-	54	-	6.0	18	0	-	-	48.6	-	0.2	-	-
	21-END	45.6	-	6	4	19.1	10.5	14.8	-	4.3	28	0	115	-	56	-	1.5	28	0	-	-	40.6	-	1.5	-	-
	MONTH	112.4	173	19	16	20.0	11.3	15.7	-	4.3	28	0	349	-	181	-	1.5	28	0	-	-	108.9	-	0.7	-	52
Shannon Airport Co. Clare	1-10	18.2	-	7	5	21.0	14.5	17.8	-	9.9	1	0	134	-	78	-	6.8	1	0	19.2	-	19.6	-	4.0	0	-
	11-20	33.7	-	9	9	19.1	12.8	15.9	-	10.8	17	0	115	-	59	-	8.5	14	0	16.4	-	48.3	-	6.3	5	-
	21-END	17.2	-	5	5	18.9	12.5	15.7	-	8.2	28	0	124	-	63	-	2.8	27	0	16.7	-	33.6	-	4.9	0	-
	MONTH	69.1	83	21	19	19.6	13.2	16.4	+1.1	8.2	28	0	373	105	200	115	2.8	27	0	17.4	+0.7	101.5	70	5.0	5	71
Cork Airport Co. Cork	1-10	25.2	-	4	2	20.9	13.1	17.0	-	8.7	10	0	126	-	70	-	6.1	10	0	19.2	-	30.4	-	4.8	2	-
	11-20	42.3	-	8	7	18.0	11.6	14.8	-	9.0	17	0	104	-	48	-	6.3	17	0	16.0	-	59.6	-	7.7	6	-
	21-END	34.3	-	4	2	18.5	11.2	14.8	-	8.8	21	0	115	-	54	-	5.0	28	0	16.4	-	62.0	-	5.4	1	-
	MONTH	101.8	113	16	11	19.1	11.9	15.5	+0.9	8.7	10	0	345	106	173	117	5.0	28	0	17.2	+1.4	152.0	93	6.0	9	79
Fermoy (Coolnakilla) Co. Cork	1-10	56.6	-	9	7	20.2	12.3	16.2	-	7.9	10	0	118	-	63	-	4.9	10	0	-	-	25.9	-	N/A	-	-
	11-20	42.6	-	7	6	17.3	11.2	14.2	-	8.7	17	0	98	-	43	-	5.7	17	0	-	-	52.8	-	N/A	-	-
	21-END	34.8	-	6	3	17.5	10.5	14.0	-	8.2	28	0	106	-	46	-	1.5	28	0	-	-	50.6	-	N/A	-	-
	MONTH	134.0	-	22	16	18.3	11.3	14.8	-	7.9	10	0	322	-	152	-	1.5	28	0	-	-	129.3	-	N/A	-	N/A
Fermoy (Moore Park) Co. Cork	1-10	14.2	-	3	2	22.0	12.6	17.3	-	7.2	10	0	129	-	74	-	-0.2	10	1	-	-	33.6	-	3.3	-	-
	11-20	30.7	-	8	7	19.6	11.1	15.4	-	6.0	18	0	110	-	56	-	-0.8	18	2	-	-	52.3	-	3.8	-	-
	21-END	47.1	-	6	3	19.4	10.4	14.9	-	4.0	28	0	116	-	59	-	-4.6	28	3	-	-	55.9	-	2.9	-	-
	MONTH	92.0	123	17	12	20.3	11.3	15.8	-	4.0	28	0	354	-	188	-	-4.6	28	6	-	-	141.8	-	3.3	-	69
Roches Point Co. Cork	1-10	30.3	-	4	4	20.3	14.0	17.2	-	10.3	10	0	128	-	72	-	7.1	10	0	19.1	-	40.9	-	4.8	2	-
	11-20	30.1	-	6	6	18.2	12.5	15.3	-	9.9	18	0	109	-	53	-	7.7	18	0	16.1	-	57.1	-	17.7	5	-
	21-END	58.1	-	5	3	19.0	11.9	15.4	-	9.6	23	0	121	-	60	-	5.4	23	0	16.9	-	54.7	-	5.4	1	-
	MONTH	118.5	154	15	13	19.1	12.8	16.0	+0.9	9.6	23	0	358	104	185	113	5.4	23	0	17.3	+0.9	152.7	92	9.2	8	90
Glencolumbkille Co. Donegal	1-10	39.4	-	9	8	18.1	11.5	14.8	-	7.5	1	0	104	-	49	-	3.0	4	0	-	-	N/A	-	3.0	-	-
	11-20	119.6	-	10	9	17.0	11.2	14.1	-	9.6	17	0	97	-	41	-	6.0	20	0	-	-	N/A	-	4.3	-	-
	21-END	63.2	-	9	7	16.6	11.3	13.9	-	9.4	22	0	105	-	43	-	0.5	28	0	-	-	N/A	-	4.0	-	-
	MONTH	222.2	-	28	24	17.2	11.3	14.3	-	7.5	1	0	306	-	133	-	0.5	28	0	-	-	N/A	-	3.8	-	N/A

TABLE 1 (CONTINUED)

AUGUST 1989

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	41.1	-	9	5	18.5	13.1	15.8	-	11.6	8	0	114	-	58	-	9.5	8	0	16.9	-	33.4	-	6.4	3	-	-	-	-	-	-	-	-	
	11-20	66.3	-	10	9	17.1	11.5	14.3	-	9.7	14	0	99	-	43	-	7.1	20	0	14.1	-	44.2	-	10.3	10	-	-	-	-	-	-	-	-	
	21-END	29.6	-	10	7	16.2	11.9	14.0	-	7.2	28	0	106	-	45	-	4.9	28	0	14.0	-	16.7	-	9.0	8	-	-	-	-	-	-	-	-	
	MONTH	137.0	156	29	21	17.2	12.2	14.7	+0.6	7.2	28	0	319	102	146	111	4.9	28	0	15.0	-0.1	94.3	65	8.6	21	72	-	-	-	-	-	-	-	
Casement Aerodrome Co. Dublin	1-10	31.5	-	5	3	21.4	11.8	16.6	-	6.1	4	0	122	-	68	-	3.2	4	0	18.3	-	42.8	-	4.8	3	-	-	-	-	-	-	-	-	
	11-20	36.5	-	7	7	19.4	11.5	15.5	-	10.0	17	0	111	-	55	-	8.0	17	0	15.5	-	52.5	-	9.2	8	-	-	-	-	-	-	-	-	
	21-END	39.2	-	6	3	18.9	10.5	14.7	-	3.6	28	0	114	-	55	-	1.2	28	0	15.6	-	50.5	-	6.3	1	-	-	-	-	-	-	-	-	
	MONTH	107.2	153	18	13	19.9	11.3	15.6	+1.0	3.6	28	0	347	104	178	112	1.2	28	0	16.5	-	145.8	95	6.7	12	82	-	-	-	-	-	-	-	
Dublin Airport Co. Dublin	1-10	19.3	-	7	3	21.3	12.3	16.8	-	7.6	1	0	124	-	70	-	4.8	4	0	19.6	-	37.4	-	2.0	0	-	-	-	-	-	-	-	-	
	11-20	24.7	-	7	6	19.2	12.5	15.9	-	10.4	17	0	115	-	59	-	8.2	18	0	16.1	-	49.0	-	5.2	3	-	-	-	-	-	-	-	-	
	21-END	37.9	-	4	2	18.9	11.2	15.0	-	5.6	28	0	117	-	57	-	2.8	28	0	16.5	-	47.0	-	4.1	1	-	-	-	-	-	-	-	-	
	MONTH	81.9	109	18	11	19.8	12.0	15.9	+1.1	5.6	28	0	356	106	185	118	2.8	28	0	17.4	+0.9	133.4	82	3.8	4	73	-	-	-	-	-	-	-	
Kinsealy Co. Dublin	1-10	24.8	-	6	3	21.4	12.7	17.0	-	7.6	1	0	126	-	72	-	-3.8	5	1	-	-	36.0	-	3.0	-	-	-	-	-	-	-	-	-	
	11-20	25.4	-	8	7	19.8	12.7	16.3	-	10.3	17	0	119	-	63	-	0.6	17	0	-	-	51.1	-	4.4	-	-	-	-	-	-	-	-	-	
	21-END	35.8	-	4	4	19.1	11.5	15.3	-	5.0	28	0	120	-	61	-	-4.7	28	3	-	-	47.0	-	3.9	-	-	-	-	-	-	-	-		
	MONTH	86.0	125	18	14	20.0	12.3	16.2	-	5.0	28	0	365	-	195	-	-4.7	28	4	-	-	134.1	-	3.8	-	72	-	-	-	-	-	-		
Galway Co. Galway	1-10																																	
	11-20																																	
	21-END																																	
	MONTH																																	
Killarney (Muckross House) Co. Kerry	1-10	19.5	-	7	5	19.9	14.3	17.1	-	10.2	10	0	127	-	71	-	7.9	10	0	-	-	18.0	-	-	-	-	-	-	-	-	-	-	-	
	11-20	76.7	-	9	8	18.3	13.3	15.8	-	10.6	16	0	114	-	58	-	8.5	18	0	-	-	40.6	-	-	-	-	-	-	-	-	-	-	-	
	21-END	14.9	-	8	2	18.3	12.6	15.4	-	8.2	28	0	121	-	60	-	7.5	28	0	-	-	36.6	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	111.1	118	24	15	18.8	13.4	16.1	-	8.2	28	0	362	-	189	-	7.5	28	0	-	-	95.2	-	-	-	-	-	-	-	-	-	-	-	

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

AUGUST 1989

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
Cahirciveen (Valentia Obsy.) Co. Kerry	1-10	38.7	-	7	6	19.8	14.8	17.3	-	13.2	10	0	129	-	73	-	11.0	10	0	18.9	-	22.2	-	3.7	2	-
	11-20	58.6	-	9	8	18.3	12.9	15.6	-	10.8	15	0	112	-	56	-	7.4	16	0	16.4	-	54.0	-	6.7	7	-
	21-END	25.7	-	7	5	17.6	12.9	15.3	-	9.5	28	0	119	-	58	-	6.1	28	0	16.4	-	38.7	-	4.3	0	-
	MONTH	123.0	126	23	19	18.5	13.5	16.0	+1.0	9.5	28	0	361	106	187	118	6.1	28	0	17.2	+0.7	114.9	78	4.9	9	65
Ardfert (Lisachane) Co. Kerry	1-10	31.7	-	8	6	20.1	14.3	17.2	-	11.6	1	0	128	-	72	-	9.2	10	0	-	-	31.9	-	-	-	-
	11-20	49.7	-	10	6	18.7	12.5	15.6	-	10.3	17	0	112	-	56	-	7.4	18	0	-	-	60.1	-	-	-	-
	21-END	24.3	-	7	5	18.2	11.6	14.9	-	7.9	27	0	116	-	55	-	3.1	27	0	-	-	55.8	-	-	-	-
	MONTH	105.7	-	25	17	19.0	12.7	15.9	-	7.9	27	0	355	-	183	-	3.1	27	0	-	-	147.8	-	-	-	-
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	-	-	-
	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	-	-	-
	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	-	-	-
	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	45.7	-	5	4	21.9	12.4	17.2	-	6.4	1	0	128	-	73	-	2.8	1	0	18.8	-	28.2	-	2.4	0	-
	11-20	36.6	-	8	4	19.6	10.5	15.1	-	6.4	17	0	107	-	53	-	1.5	17	0	16.0	-	45.9	-	4.6	3	-
	21-END	43.3	-	6	3	19.4	10.4	14.9	-	4.1	28	0	115	-	58	-	-0.2	28	1	16.4	-	42.7	-	2.9	0	-
	MONTH	125.6	190	19	11	20.3	11.1	15.7	+0.8	4.1	28	0	350	104	184	113	-0.2	28	1	17.0	+0.1	116.8	78	3.3	3	64
Mooncoin (Silverspring) Co. Kilkenny	1-10	21.5	-	5	4	21.7	12.2	17.0	-	6.9	1	0	126	-	71	-	0.7	1	0	-	-	22.0	-	-	-	-
	11-20	26.3	-	6	3	19.4	10.9	15.1	-	4.1	18	0	107	-	54	-	-1.4	18	1	-	-	45.5	-	-	-	-
	21-END	26.5	-	4	3	19.6	10.5	15.1	-	4.1	28	0	117	-	60	-	-0.1	28	1	-	-	61.8	-	-	-	-
	MONTH	74.3	96	15	10	20.2	11.2	15.7	-	4.1	18	0	351	-	185	-	-1.4	18	2	-	-	129.3	-	-	-	-
Ballinamore Co. Leitrim	1-10	30.3	-	8	4	19.6	10.8	15.2	-	4.0	4	0	108	-	55	-	-0.6	4	2	-	-	32.7	-	2.4	-	-
	11-20	44.6	-	10	8	18.0	10.2	14.1	-	6.4	14	0	97	-	42	-	2.0	14	0	-	-	39.3	-	3.4	-	-
	21-END	19.6	-	6	5	17.4	9.9	13.6	-	2.9	28	0	102	-	44	-	3.2	27	0	-	-	N/A	-	2.8	-	-
	MONTH	94.5	97	24	17	18.3	10.3	14.3	-	2.9	28	0	307	-	142	-	-0.6	4	2	-	-	N/A	-	2.9	-	N/A
Ardee (Boharnamoe) Co. Louth	1-10	11.4	-	3	2	21.7	7.5	14.6	-	4.9	1	0	102	-	54	-	2.5	1	0	-	-	-	-	-	-	-
	11-20	47.7	-	8	7	19.7	8.5	14.1	-	5.3	13	0	97	-	47	-	2.0	15	0	-	-	-	-	-	-	-
	21-END	27.3	-	6	3	19.5	9.5	14.5	-	2.5	28	0	112	-	55	-	4.0	23	0	-	-	-	-	-	-	-
	MONTH	86.4	114	17	12	20.3	8.5	14.4	-	2.5	28	0	311	-	155	-	2.0	15	0	-	-	-	-	-	-	-

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		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	40.7	-	6	3	20.8	12.6	16.7	-	5.7	1	0	123	-	68	-	1.1	10	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	28.0	-	8	4	18.4	11.1	14.8	-	6.5	17	0	104	-	50	-	1.3	18	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	45.2	-	7	6	18.3	9.6	14.0	-	5.5	28	0	105	-	48	-	1.0	28	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	113.9	-	21	13	19.1	11.1	15.1	-	5.5	28	0	332	-	166	-	1.0	28	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Dungarvan (Carriglea) Co. Waterford	1-10	25.4	-	4	3	22.1	12.9	17.5	-	8.2	1	0	131	-	76	-	0.8	1	0	-	-	23.0	-	2.0	-	-	-	-	-	-	-	-	-	
	11-20	37.8	-	5	5	19.6	10.9	15.2	-	4.1	18	0	108	-	56	-	-2.1	18	1	-	-	57.3	-	3.4	-	-	-	-	-	-	-	-	-	
	21-END	28.5	-	4	4	20.2	10.9	15.5	-	5.4	27	0	123	-	65	-	-2.0	27	4	-	-	53.3	-	2.3	-	-	-	-	-	-	-	-	-	-
	MONTH	91.7	107	13	12	20.6	11.5	16.1	-	4.1	18	0	362	-	196	-	-2.1	18	5	-	-	133.6	-	2.6	-	-	-	-	-	-	-	-	52	
Mullingar Co. Westmeath	1-10	19.8	-	8	6	20.1	11.3	15.7	-	5.1	1	0	113	-	60	-	2.5	1	0	17.6	-	32.4	-	3.4	0	-	-	-	-	-	-	-	-	
	11-20	41.0	-	9	7	18.2	10.6	14.4	-	8.6	17	0	100	-	45	-	6.5	17	0	15.0	-	45.0	-	6.1	5	-	-	-	-	-	-	-	-	
	21-END	29.5	-	7	4	17.9	10.0	13.9	-	3.0	28	0	105	-	47	-	1.3	28	0	15.1	-	40.1	-	4.5	0	-	-	-	-	-	-	-	-	
	MONTH	90.3	114	24	17	18.7	10.6	14.6	+0.7	3.0	28	0	318	98	152	103	1.3	28	0	15.9	-0.1	117.5	83	4.7	5	63	-	-	-	-	-	-		
J.F.K. Park Co. Wexford	1-10	19.7	-	4	3	21.3	12.9	17.1	-	8.9	1	0	127	-	71	-	2.8	1	0	-	-	N/A	-	3.7	-	-	-	-	-	-	-	-	-	
	11-20	26.0	-	8	7	18.8	12.1	15.4	-	7.1	18	0	110	-	55	-	0.2	17	0	-	-	N/A	-	6.9	-	-	-	-	-	-	-	-	-	
	21-END	23.2	-	4	3	19.2	11.0	15.1	-	6.4	28	0	118	-	59	-	-1.8	31	2	-	-	N/A	-	3.3	-	-	-	-	-	-	-	-	-	
	MONTH	68.9	82	16	13	19.7	12.0	15.8	-	6.4	28	0	355	-	185	-	-1.8	31	2	-	-	N/A	-	4.6	-	-	-	-	-	-	-	-	N/A	
Clonroche Co. Wexford	1-10	26.9	-	4	3	21.6	13.0	17.3	-	7.1	1	0	129	-	74	-	2.4	1	0	-	-	46.7	-	1.8	-	-	-	-	-	-	-	-	-	
	11-20	38.5	-	7	6	18.7	11.7	15.2	-	6.8	17	0	108	-	54	-	1.4	17	0	-	-	66.3	-	2.8	-	-	-	-	-	-	-	-	-	
	21-END	22.6	-	6	3	19.1	10.2	14.6	-	6.0	31	0	113	-	55	-	-2.2	28	2	-	-	67.5	-	2.1	-	-	-	-	-	-	-	-	-	
	MONTH	88.0	91	17	12	19.8	11.6	15.7	-	6.0	31	0	350	-	182	-	-2.2	28	2	-	-	180.5	-	2.2	-	-	-	-	-	-	-	-	66	
Johnstown Castle Co. Wexford	1-10	20.7	-	4	3	21.1	13.2	17.1	-	9.7	1	0	127	-	71	-	3.3	1	0	-	-	42.9	-	1.5	-	-	-	-	-	-	-	-	-	
	11-20	34.6	-	6	5	19.0	12.6	15.8	-	9.5	18	0	114	-	58	-	2.2	18	0	-	-	62.6	-	2.4	-	-	-	-	-	-	-	-	-	-
	21-END	23.1	-	4	3	18.9	11.4	15.1	-	8.1	28	0	118	-	58	-	0.4	23	0	-	-	49.1	-	1.6	-	-	-	-	-	-	-	-	-	
	MONTH	78.4	91	14	11	19.6	12.4	16.0	-	8.1	28	0	359	-	188	-	0.4	23	0	-	-	154.6	-	1.8	-	-	-	-	-	-	-	-	65	
Rosslare Co. Wexford	1-10	20.0	-	3	2	20.5	13.8	17.1	-	11.3	1	0	127	-	71	-	8.8	1	0	20.0	-	55.0	-	4.5	2	-	-	-	-	-	-	-	-	
	11-20	25.3	-	6	3	18.7	13.1	15.9	-	10.4	18	0	115	-	59	-	7.9	18	0	17.2	-	76.8	-	6.9	8	-	-	-	-	-	-	-	-	
	21-END	17.9	-	4	2	18.5	12.1	15.3	-	9.4	31	0	120	-	58	-	5.2	28	0	17.1	-	59.9	-	4.9	0	-	-	-	-	-	-	-	-	
	MONTH	63.2	87	13	7	19.2	13.0	16.1	+0.9	9.4	31	0	362	105	189	116	5.2	28	0	18.1	+0.8	191.7	105	5.4	10	86	-	-	-	-	-	-		

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 2 GLOBAL RADIATION

STATION	PERIOD	AMOUNT MJ/m ²
Malin Head Co. Donegal	1-10	140.87
	11-20	126.36
	21-end	92.12
	Month	359.45
Dublin Airport Co. Dublin	1-10	138.77
	11-20	129.69
	21-end	127.32
	Month	395.78
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	140.26
	11-20	155.72
	21-end	124.97
	Month	420.95
Kilkenny Co. Kilkenny	1-10	135.10
	11-20	132.38
	21-end	135.97
	Month	403.45
Belmullet Co. Mayo	1-10	127.88
	11-20	137.52
	21-end	98.11
	Month	363.51
Clones Co. Monaghan	1-10	N/A
	11-20	N/A
	21-end	N/A
	Month	N/A
Birr Co. Offaly	1-10	116.57
	11-20	129.64
	21-end	114.07
	Month	360.28

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	23.3	—	69	26
	11-20	27.1	—	50	19
	21-end	22.3	—	22	28
	Month	72.7	—	—	—
Kinsealy Co. Dublin	1-10	37.4	—	86	19
	11-20	22.1	—	69	17
	21-end	28.3	—	49	20
	Month	87.8	—	—	—
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	10.6	—	28	31
	11-20	24.4	—	0	36
	21-end	8.0	—	0	18
	Month	48.0	—	—	—
Ballinamore Co. Leitrim	1-11	20.6	—	56	21
	14-20	61.7	—	13	43
	21-end	16.3	—	10	3
	Month	98.6	—	—	—
Glenamoy Co. Mayo	1-10				
	11-20				
	21-end	N/A	N/A	N/A	N/A
	Month				
Johnstown Castle Co. Wexford	1-10	34.6	—	82	9
	11-20	35.9	—	63	19
	21-end	27.5	—	57	6
	Month	98.0	—	—	—

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	19.5	17.9	15.4	-.32
11-20	16.9		15.5	13.8	.27	97.0	103.4
21-end	17.1		15.6	13.3	.15	75.7	78.5
Mineral	1-10	19.9	17.4	14.7	-.27	686.3	727.4
	11-20	17.3	14.9	12.8	.22	266.6	239.9
	21-end	17.8	15.1	12.6	.09	231.6	116.2

Notes on the tables in January issue

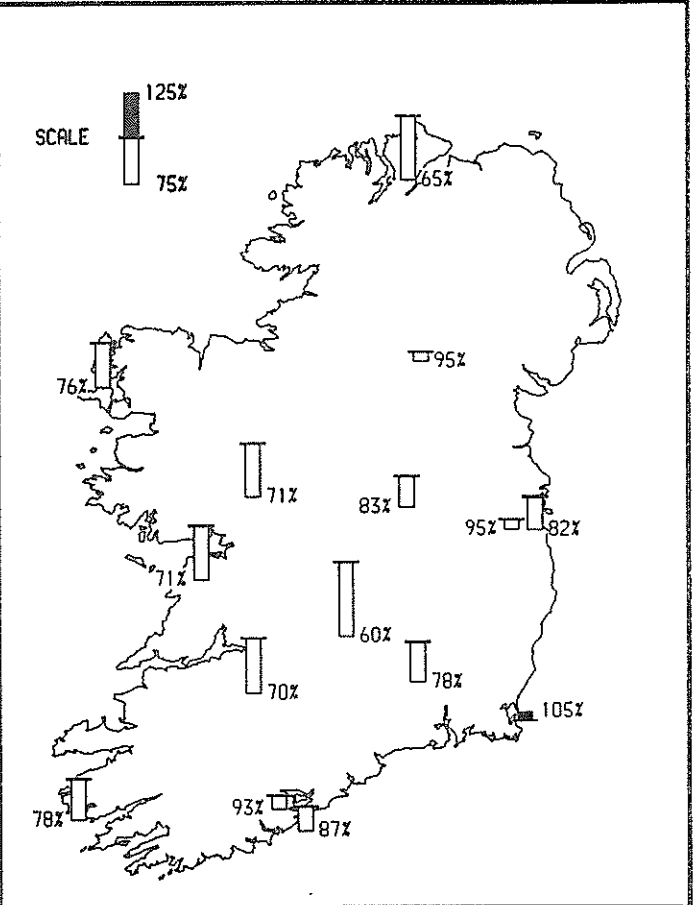
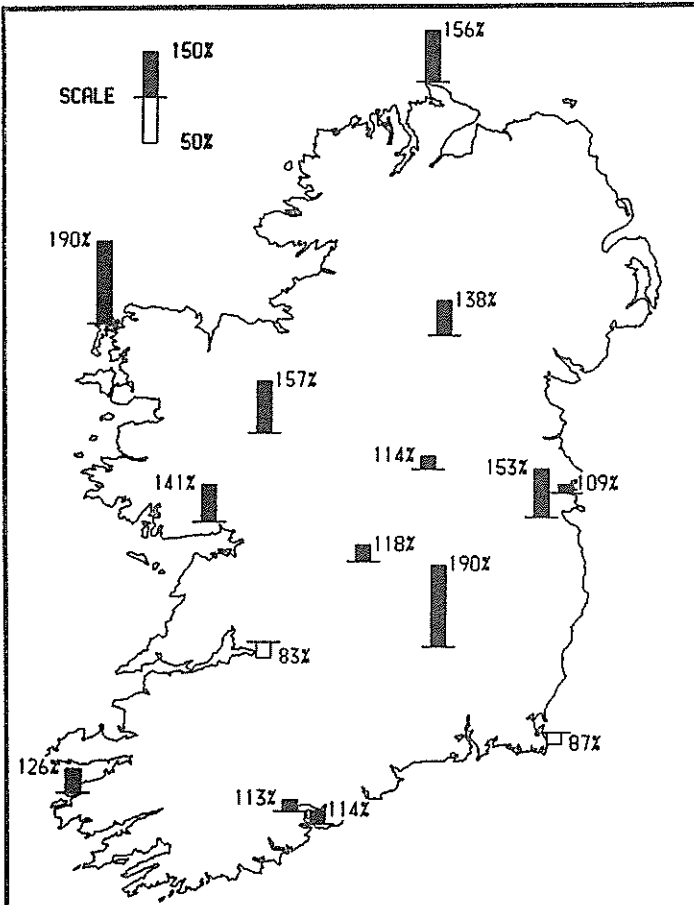
PRECIPITATION VALUES FOR August 1989

MARKREE (CO. SLIGO)					LETTERKENNY (CO. DONEGAL)			
PERIOD	AMOUNT	% OF AVERAGE	RAIN DAYS NO.	WET DAYS NO.	AMOUNT	% OF AVERAGE	RAIN DAYS NO.	WET DAYS NO.
1 - 10	23.3		8	7	37.8		7	5
11 - 20	72.3		10	10	53.6		10	8
21 - END	20.5		8	5	15.1		6	4
MONTH	116.1	120	26	22	106.5	122	23	17

Outlook for September 13th - 22nd

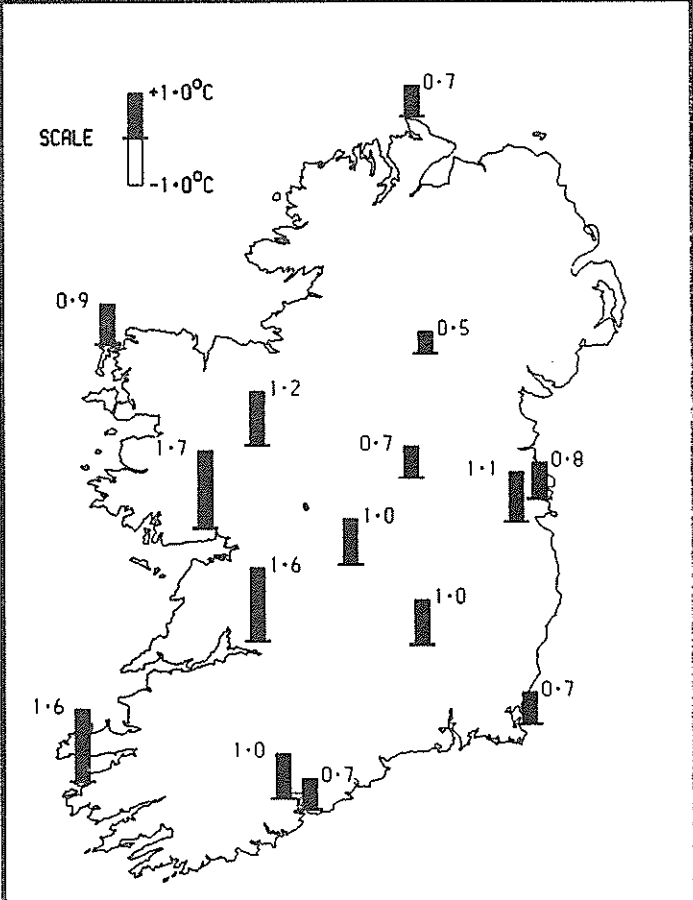
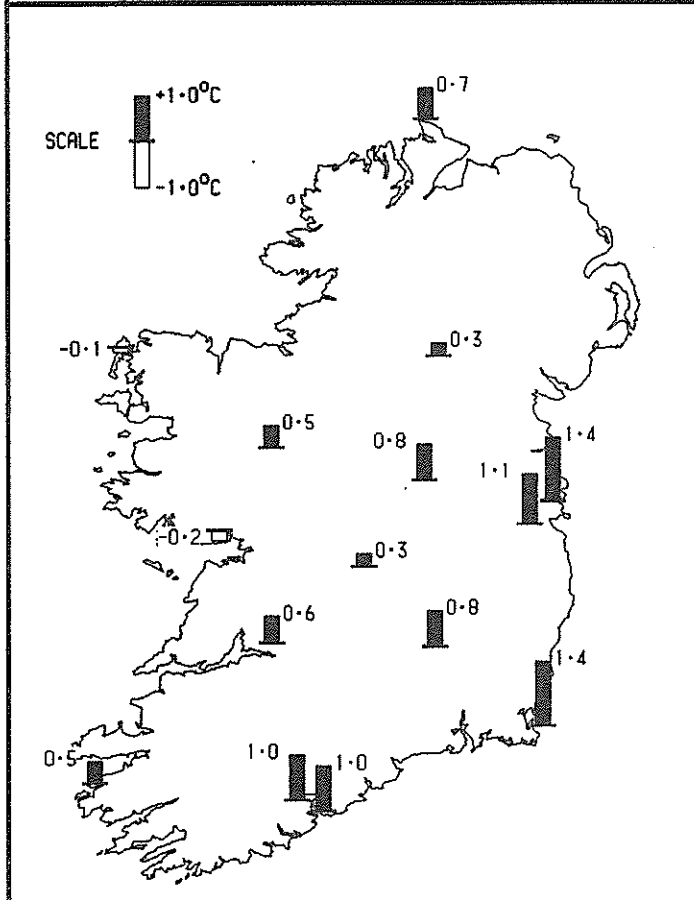
In marked contrast to conditions heretofore upcoming weather will tend to be unsettled and wet. It will also be mild in a southwesterly airflow which will be strong at times. Rainfall amounts are likely to exceed 30 to 40 mm and there will be a disimprovement in ground conditions.

Differences from average



Rainfall percentage of (1951-80) normals

SUNSHINE (Percentage of 1951-1980 normals)



MEAN MAX. TEMPERATURE (Deviation from 1951-1980 normals)

MEAN MIN. TEMPERATURE (Deviation from 1951-1980 normals)

Weather and Potato Blight

Bourke Model

The meteorological factors most associated with the spread of potato blight are a sustained humid period with raised temperature for spore growth and the development of sporangia, and the occurrence of free moisture on the leaves for germination and reinfection. To be effective under Irish conditions Bourke set out that the humid period must be at least 12 hours with temperature not below 10°C and relative humidity in the air of at least 90 per cent if any precipitation occurs in the period from 7 to 15 hours. The minimum time required is increased to 16 hours if no precipitation takes place.

The importance of the blight-weather spell is calculated on the basis of the '*effective period*' which follows the initial humid period. Number of effective blight hours (EBH) therefore start as 1 EBH at 12th (or 16th) hour and accumulate so long as the criteria for temperature and relative humidity are sustained. If consecutive spells are separated by 5 hours or less, no new lead period is required and these are coalesced for calculating the effective period.

Conceptual Model



Operational Model

