

METEOROLOGICAL SERVICE

METEOROLOGICAL OFFICE,
ROSSLARE,
CO. WEXFORD

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JUNE 1985

AGROMETEOROLOGICAL BULLETIN

The weather of June

The dry and very warm conditions extending from May 27th continued to June 3rd. However, with declining pressure and the advance of weak frontal troughs, scattered outbreaks of rain occurred on 4th; the rain became more organised on 5th. Showers in a northeast to north airflow developed on 6th and 7th. Frontal rainbelts and drizzle in a westerly airflow effected relatively cloudy conditions with some recovery in temperature from 8th-11th. Cooler and showery weather returned on 12th.

Pressure rose subsequently and high pressure dominated to 15th before declining on 16th and permitting the advance over Ireland of an occluded trough on 17th with spells of rain and south to southwest winds. Another transient ridge on 18th was followed by a weak trough on 19th, which gave scattered showers.

A deepening depression, advancing from the mid North Atlantic, induced the influx of a relatively warm and very humid airmass over the country on 20th; extensive mist, rain and drizzle developed everywhere, some of the rain was heavy and thundery on 20th/21st as the depression centre moved overland. Both the northern and southern regions continued to be adversely affected on 23rd whereas intermediate regions experienced much improvement in conditions. Generally the unsettled weather prevailed, and a westerly airflow, cool and showery, dominated to 28th. This was followed by broken and sometimes humid conditions to the end of the month.

Precipitation:

Monthly rainfall amounts were above normal except in parts of the west, midlands and north. Amounts varied from 195% of normal at Dungarvan (Carriglea) to 63% at Galway. Wettest days occurred on 5th (south, midlands and east), 11th, 17th and 19th to 22nd. End of month soil moisture deficits (see Table 3) were absent or well below average except in the southeast and east. An extensive spell of weather favouring the spread of potato blight occurred in all areas from 20th to 23rd although the period was relatively cool. The monthly weather most favoured septoria and rhynchosporium in cereals although mildew was also present.

Temperature:

Mean daily temperature was well below average and varied from 1.4C° below at Dublin Airport and Kilkenny to 0.7C° below at Galway and Valentia Observatory. Soil temperatures (100mm) varied from 2.1C° below at Kilkenny and Clones to normal at Malin Head. Apart from the initial warm spell to 5th, soil temperatures for the remainder of the month were well below average, being 3-4C° below for the 5-day period 11-15th. Ground frost occurred in places on 1st and 2nd, 7th, and 14th to 16th and 25th.

Sunshine and Radiation:

Sunshine amount were generally below normal except in the midlands and north. Amounts varied from 104% of normal at Malin Head to 73% at Birr. Global radiation was 81% at Kilkenny and 101% at Dublin Airport.

Wind:

Strong winds with gale gusts occurred on 11th, 12th, 20th, and in the southwest on 21st and 22nd and on 28th.

Summary:

Generally cold and dull except in the north and east, and above average rainfall in most places.

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

JUNE

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 ⁻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	23.9	-	6	4	17.0	6.9	11.9	-	2.8	7	0	76	-	28	-	0.0	7	0	-	-	67.4	-	2.4	-	-
	11-20	18.5	-	5	4	16.1	6.9	11.5	-	2.8	14	0	71	-	23	-	0.4	14	0	-	-	53.9	-	3.5	-	-
	21-END	11.1	-	5	4	17.3	9.6	13.5	-	6.6	25	0	91	-	37	-	4.0	25	0	-	-	37.5	-	3.6	-	-
	MONTH	53.5	109	16	12	16.8	7.8	12.3	-	2.8	14	0	238	-	88	-	0.0	7	0	-	-	158.8	-	3.2	-	80
Shannon Airport Co. Clare	1-10	8.5	-	5	3	18.0	9.1	13.6	-	4.3	7	0	92	-	39	-	1.0	7	0	16.0	-	51.5	-	4.0	0	-
	11-20	34.0	-	6	5	15.8	8.4	12.1	-	4.3	14	0	77	-	26	-	0.2	15	0	14.3	-	47.5	-	4.2	3	-
	21-END	32.1	-	7	5	16.8	10.4	13.6	-	8.1	23	0	92	-	37	-	5.3	23	0	14.8	-	29.2	-	4.3	1	-
	MONTH	74.6	126	18	13	16.9	9.3	13.1	-1.0	4.3	7	0	260	86	102	77	0.2	15	0	15.0	-1.5	128.2	76	4.2	4	81
Cork Airport Co. Cork	1-10	28.5	-	5	4	16.0	8.8	12.4	-	4.6	7	0	80	-	29	-	2.3	7	0	14.6	-	62.8	-	5.9	0	-
	11-20	53.2	-	6	5	14.7	7.5	11.1	-	3.9	14	0	67	-	18	-	0.0	14	0	13.6	-	54.9	-	6.0	3	-
	21-END	19.6	-	6	5	15.6	9.4	12.5	-	7.6	25	0	81	-	27	-	3.0	25	0	14.0	-	34.9	-	5.9	2	-
	MONTH	101.3	158	17	14	15.4	8.6	12.0	-1.1	3.9	14	0	228	85	74	72	0.0	14	0	14.0	-1.3	152.6	82	5.9	5	85
Fermoy (Coolnekillie) Co. Cork	1-10	13.1	-	6	3	15.3	8.3	11.8	-	3.3	7	0	74	-	25	-	-1.6	1	2	-	-	53.1	-	4.5	-	-
	11-20	50.1	-	5	5	14.5	7.0	10.7	-	4.5	15	0	63	-	16	-	-2.6	14	3	-	-	N/A	-	4.9	-	-
	21-END	32.9	-	10	5	15.1	8.2	11.6	-	5.8	21	0	72	-	21	-	1.4	21	0	-	-	22.5	-	4.7	-	-
	MONTH	96.1	-	21	13	15.0	7.8	11.4	-	3.3	7	0	210	-	61	-	-2.6	14	5	-	-	N/A	-	4.7	-	N/A
Fermoy (Moore Park) Co. Cork	1-10	13.8	-	5	5	17.3	7.1	12.2	-	2.0	1	0	79	-	30	-	-1.3	1	2	-	-	53.6	-	2.9	-	-
	11-20	32.6	-	6	5	15.7	6.4	11.1	-	1.7	14	0	68	-	22	-	-5.3	14	5	-	-	41.1	-	2.6	-	-
	21-END	41.4	-	6	5	16.8	9.0	12.9	-	4.0	25	0	85	-	33	-	-1.0	25	3	-	-	23.9	-	3.2	-	-
	MONTH	87.8	160	17	15	16.6	7.5	12.0	-	1.7	14	0	232	-	85	-	-5.3	14	10	-	-	118.6	-	2.9	-	49
Roches Point Co. Cork	1-10	11.4	-	3	3	16.1	10.0	13.1	-	6.8	7	0	87	-	32	-	3.5	7	0	15.0	-	59.9	-	6.4	1	-
	11-20	38.4	-	5	5	15.0	8.7	11.9	-	5.6	14	0	75	-	22	-	0.6	16	0	14.6	-	59.8	-	6.0	2	-
	21-END	12.5	-	6	3	15.7	10.1	12.9	-	7.6	25	0	85	-	30	-	2.9	25	0	14.3	-	29.1	-	6.1	2	-
	MONTH	62.3	125	14	11	15.6	9.6	12.6	-1.0	5.6	14	0	246	87	85	76	0.6	16	0	14.6	-1.4	148.8	78	6.1	5	89
Glencolumbkille Co. Donegal	1-10	24.9	-	6	4	15.7	8.3	12.0	-	4.4	7	0	76	-	25	-	-1.6	7	1	-	-	65.2	-	3.8	-	-
	11-20	45.3	-	9	5	14.5	7.3	10.9	-	5.1	16	0	65	-	16	-	-2.0	16	2	-	-	50.5	-	3.7	-	-
	21-END	25.5	-	9	7	15.6	10.1	12.8	-	9.1	28	0	84	-	29	-	3.2	21	0	-	-	27.3	-	4.2	-	-
	MONTH	95.7	-	24	16	15.2	8.6	11.9	-	4.4	7	0	225	-	71	-	-2.0	16	3	-	-	143.0	-	3.9	-	75

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

JUNE 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 ⁻¹)	DAYS WITH GALE GUSTS													
						MEAN MAX.	MEAN MIN.	MEAN DAILY	DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°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	24.3	-	6	3	15.8	7.0	11.4	-	5.0	4	0	70	-	22	-	1.6	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	43.1	-	9	8	14.5	6.3	10.4	-	2.3	16	0	61	-	15	-	0.6	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	21-END	34.0	-	8	6	15.5	10.4	12.9	-	9.1	25	0	85	-	30	-	6.0	25	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	101.4	110	23	17	15.2	7.9	11.6	-	2.3	16	0	216	-	67	-	0.6	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malin Head Co. Donegal	1-10	19.3	-	6	4	13.3	8.3	10.8	-	6.5	8	0	64	-	13	-	0.4	3	0	15.6	-	83.7	-	6.4	0	-	-	-	-	-	-	-	-	-	-	
	11-20	25.2	-	6	6	14.0	8.5	11.2	-	5.5	15	0	68	-	17	-	1.0	15	0	14.9	-	73.8	-	6.4	2	-	-	-	-	-	-	-	-	-	-	-
	21-END	9.2	-	8	3	14.9	10.0	12.4	-	8.1	30	0	80	-	26	-	4.1	23	0	14.9	-	30.5	-	7.9	2	-	-	-	-	-	-	-	-	-	-	-
	MONTH	53.7	76	20	13	14.1	8.9	11.5	-1.1	5.5	15	0	213	82	56	63	0.4	3	0	15.1	+0.0	188.0	104	6.9	4	89	-	-	-	-	-	-	-	-	-	
Casement Aerodrome Co. Dublin	1-10	23.4	-	7	4	15.6	6.5	11.1	-	1.6	7	0	68	-	21	-	-1.6	1	3	14.5	-	76.4	-	4.3	0	-	-	-	-	-	-	-	-	-	-	
	11-20	18.9	-	6	5	16.0	6.8	11.4	-	3.0	16	0	71	-	23	-	-0.1	15	1	14.0	-	51.1	-	4.4	4	-	-	-	-	-	-	-	-	-	-	-
	21-END	22.0	-	6	6	17.7	9.6	13.6	-	7.7	24	0	92	-	38	-	4.4	26	0	14.8	-	42.0	-	5.4	0	-	-	-	-	-	-	-	-	-	-	-
	MONTH	64.3	131	19	15	16.4	7.6	12.0	-1.3	1.6	7	0	231	82	82	69	-1.6	1	4	14.4	-	169.5	91	4.7	4	85	-	-	-	-	-	-	-	-	-	
Dublin Airport Co. Dublin	1-10	26.9	-	7	6	15.2	7.9	11.6	-	3.0	7	0	72	-	22	-	2.5	1	0	16.0	-	81.7	-	3.9	0	-	-	-	-	-	-	-	-	-	-	-
	11-20	32.8	-	5	4	15.5	7.7	11.6	-	4.3	15	0	72	-	22	-	2.0	15	0	14.2	-	48.5	-	4.0	2	-	-	-	-	-	-	-	-	-	-	-
	21-END	18.8	-	7	3	16.9	9.5	13.2	-	7.8	26	0	88	-	34	-	5.1	25	0	15.5	-	41.3	-	4.4	0	-	-	-	-	-	-	-	-	-	-	-
	MONTH	78.5	148	19	13	15.9	8.4	12.1	-1.4	3.0	7	0	232	81	78	66	2.0	15	0	15.2	-1.4	171.5	89	4.1	2	87	-	-	-	-	-	-	-	-	-	
Kinsealy Co. Dublin	1-10	24.3	-	7	6	14.7	7.1	10.9	-	3.5	7	0	65	-	17	-	-1.5	3	2	-	-	76.6	-	3.0	-	-	-	-	-	-	-	-	-	-	-	
	11-20	29.5	-	6	5	15.6	7.4	11.5	-	3.4	15	0	71	-	22	-	0.6	15	0	-	-	49.5	-	3.3	-	-	-	-	-	-	-	-	-	-	-	
	21-END	14.1	-	6	3	17.4	9.9	13.7	-	8.0	26	0	93	-	38	-	6.0	25	0	-	-	45.4	-	3.4	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	67.9	133	19	14	15.9	8.1	12.0	-	3.4	15	0	229	-	77	-	-1.5	3	2	-	-	171.5	-	3.2	-	84	-	-	-	-	-	-	-	-	-	
Galway Co. Galway	1-10	6.7	-	5	4	17.4	8.5	12.9	-	5.0	7	0	85	-	34	-	2.4	7	0	16.0	-	52.0	-	4.8	0	-	-	-	-	-	-	-	-	-	-	
	11-20	23.7	-	8	5	15.5	7.7	11.6	-	4.2	15	0	72	-	22	-	-0.7	14	2	14.2	-	49.5	-	4.7	3	-	-	-	-	-	-	-	-	-	-	
	21-END	15.3	-	8	5	16.6	10.4	13.5	-	9.1	23	0	91	-	36	-	6.2	30	0	15.1	-	51.1	-	5.3	1	-	-	-	-	-	-	-	-	-	-	
	MONTH	45.7	63	21	14	16.5	8.9	12.7	-0.7	4.2	15	0	248	-	92	-	-0.7	14	2	15.1	-	152.6	87	4.9	4	88	-	-	-	-	-	-	-	-	-	
Killarney (Muckross House) Co. Kerry	1-10	18.0	-	7	7	17.1	8.7	12.9	-	4.6	7	0	85	-	34	-	-1.2	1	2	-	-	51.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	39.9	-	6	4	15.3	8.1	11.7	-	2.7	15	0	73	-	23	-	-0.8	15	2	-	-	37.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	19.6	-	8	4	15.8	10.6	13.2	-	8.2	25	0	88	-	33	-	2.8	25	0	-	-	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	77.5	106	21	15	16.1	9.1	12.6	-	2.7	15	0	246	-	90	-	-1.2	1	4	-	-	101.1	-	-	-	-	-	-	-	-	-	-	-	-	-	

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TABLE 1 (CONTINUED)

JUNE 1985

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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
Cahirciveen (Valentia Obsy.) Co. Kerry	1-10	11.5	-	7	4	17.5	9.0	13.2	-	5.2	1	0	88	-	36	-	1.4	2	0	16.4	-	53.5	-	4.5	0	-
	11-20	62.7	-	7	5	15.1	8.8	11.9	-	3.6	15	0	76	-	24	-	-0.5	15	1	15.2	-	57.6	-	5.0	2	-
	21-END	38.4	-	9	6	15.4	11.0	13.2	-	9.5	25	0	88	-	32	-	6.3	25	0	15.0	-	24.5	-	5.2	2	-
	MONTH	112.6	148	23	15	16.0	9.6	12.8	-0.7	3.6	15	0	252	89	92	82	-0.5	15	1	15.5	-0.7	135.6	82	4.9	4	77
Ardfert (Liscane) Co. Kerry	1-10	22.8	-	7	6	17.2	7.7	12.4	-	1.8	7	0	81	-	32	-	N/A	N/A	-	-	-	60.2	-	-	-	-
	11-20	46.2	-	6	5	15.3	7.7	11.5	-	2.4	15	0	72	-	22	-	-1.0	16	2	-	-	61.8	-	-	-	-
	21-END	43.5	-	7	6	15.8	10.1	12.9	-	7.4	25	0	85	-	31	-	1.2	23	0	-	-	26.1	-	-	-	-
	MONTH	112.5	-	20	17	16.1	8.5	12.3	-	1.8	7	0	238	-	85	-	N/A	N/A	-	-	-	148.1	-	-	-	-
Lullymore Co. Kildare	1-10	12.2	-	3	3	15.9	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	N/A	N/A	-	-	-	72.7	-	3.8	-	-
	11-20	15.8	-	5	5	15.7	5.4	10.5	-	0.9	14	0	64	-	19	-	N/A	N/A	-	-	-	46.3	-	3.2	-	-
	21-END	18.9	-	5	5	17.2	8.5	12.9	-	6.3	25	0	85	-	33	-	N/A	N/A	-	-	-	38.8	-	3.8	-	-
	MONTH	46.9	79	13	13	16.3	N/A	N/A	-	N/A	N/A	N/A	-	N/A	-	N/A	-	N/A	N/A	-	-	-	157.8	-	3.6	-
Kilkenny Co. Kilkenny	1-10	16.3	-	5	4	17.5	6.5	12.0	-	2.4	1	0	77	-	30	-	-3.8	1	3	15.5	-	63.1	-	2.8	0	-
	11-20	25.4	-	5	4	16.1	6.2	11.1	-	2.5	14	0	68	-	22	-	-2.0	14	3	14.4	-	45.0	-	3.1	1	-
	21-END	15.9	-	7	3	17.1	9.4	13.3	-	3.5	25	0	89	-	36	-	-1.1	25	1	14.9	-	28.1	-	3.1	0	-
	MONTH	57.6	123	17	11	16.9	7.4	12.1	-1.4	2.4	1	0	235	82	87	70	-3.8	1	7	14.9	-2.1	136.2	80	3.0	1	74
Mooncoin (Silverspring) Co. Kilkenny	1-10	12.8	-	5	3	16.9	7.1	12.0	-	2.0	1	0	77	-	28	-	-2.0	2	3	-	-	55.7	-	-	-	-
	11-20	36.8	-	4	4	15.9	6.8	11.4	-	1.9	14	0	70	-	23	-	-4.0	14	3	-	-	51.2	-	-	-	-
	21-END	35.6	-	7	6	16.6	9.1	12.9	-	3.9	25	0	85	-	33	-	-2.1	25	2	-	-	27.1	-	-	-	-
	MONTH	85.2	161	16	13	16.5	7.7	12.1	-	1.9	14	0	232	-	83	-	-4.0	14	8	-	-	134.0	-	-	-	-
Bellinamore Co. Leitrim	1-10	16.6	-	6	4	16.8	6.9	11.9	-	2.4	1	0	76	-	27	-	-4.3	1	3	-	-	69.7	-	2.8	-	-
	11-20	27.6	-	8	6	15.9	6.6	11.3	-	1.6	16	0	69	-	22	-	-4.2	16	4	-	-	35.3	-	2.3	-	-
	21-END	34.3	-	7	5	16.7	8.9	12.8	-	5.5	25	0	84	-	31	-	-1.5	25	1	-	-	31.6	-	2.5	-	-
	MONTH	78.5	102	21	15	16.5	7.5	12.0	-	1.6	16	0	228	-	60	-	-4.3	1	8	-	-	136.6	-	2.5	-	70
Ardee (Bohernamos) Co. Louth	1-10	16.1	-	4	3	15.5	4.8	10.1	-	0.9	7	0	60	-	17	-	0.5	7	0	-	-	-	-	-	-	-
	11-20	30.5	-	7	5	16.5	6.0	11.2	-	1.1	16	0	70	-	24	-	-1.5	14	1	-	-	-	-	-	-	-
	21-END	19.9	-	5	4	18.0	7.7	12.8	-	5.2	25	0	84	-	34	-	5.1	30	0	-	-	-	-	-	-	-
	MONTH	66.5	111	16	12	16.7	6.1	11.4	-	0.9	7	0	215	-	76	-	-1.5	14	1	-	-	-	-	-	-	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

JUNE 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 ⁻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	10.6	-	5	5	16.6	6.8	11.7	-	3.3	2	0	73	-	26	-	-2.7	2	3	-	-	58.6	-	3.5	-	-
	11-20	27.5	-	7	6	15.5	7.4	11.4	-	3.2	15	0	71	-	21	-	-3.6	15	4	-	-	48.5	-	3.0	-	-
	21-END	18.3	-	6	3	16.5	10.2	13.4	-	7.8	25	0	90	-	35	-	2.6	25	0	-	-	46.3	-	3.5	-	-
	MONTH	56.4	74	18	14	16.2	8.1	12.2	-	3.2	15	0	233	-	82	-	-3.6	15	7	-	-	153.4	-	3.3	-	77
Belmullet Co. Mayo	1-10	15.6	-	5	4	15.3	7.9	11.6	-	5.5	2	0	72	-	22	-	0.6	2	0	15.0	-	59.4	-	6.5	1	-
	11-20	18.8	-	9	6	14.3	8.2	11.2	-	5.8	15	0	68	-	17	-	2.0	15	0	14.5	-	53.3	-	6.0	2	-
	21-END	22.0	-	5	2	15.7	10.5	13.1	-	8.1	29	0	87	-	32	-	5.7	29	0	15.2	-	45.1	-	5.8	0	-
	MONTH	56.4	81	19	12	15.1	8.9	12.0	-1.0	5.5	2	0	228	85	71	73	0.6	2	0	14.9	-0.8	157.8	88	6.1	3	83
Claremorris Co. Mayo	1-10	12.6	-	5	5	16.8	6.7	11.7	-	3.5	2	0	74	-	26	-	-0.9	7	1	14.7	-	51.5	-	4.3	0	-
	11-20	24.2	-	9	6	15.5	6.4	10.9	-	2.6	15	0	66	-	20	-	-0.9	15	2	13.7	-	43.6	-	3.9	3	-
	21-END	42.9	-	4	2	17.0	9.3	13.1	-	7.2	25	0	88	-	34	-	3.6	25	0	15.0	-	32.5	-	4.1	0	-
	MONTH	79.7	108	18	13	16.4	7.5	11.9	-0.9	2.6	15	0	228	86	80	76	-0.9	7	3	14.5	-0.7	127.6	83	4.1	3	71
Glenamoy Co. Mayo	1-10	22.2	-	6	4	16.1	7.4	11.8	-	5.2	7	0	74	-	25	-	1.7	2	0	-	-	55.9	-	3.6	-	-
	11-20	23.1	-	8	4	14.8	7.5	11.1	-	3.5	20	0	68	-	18	-	-0.6	20	1	-	-	44.1	-	3.3	-	-
	21-END	43.3	-	2	2	15.8	10.5	13.2	-	7.7	25	0	88	-	32	-	5.5	25	0	-	-	36.1	-	3.1	-	-
	MONTH	88.6	100	16	10	15.6	8.5	12.0	-	3.5	20	0	229	-	75	-	-0.6	20	1	-	-	136.1	-	3.4	-	71
Dunsany (Grange) Co. Meath	1-10	13.8	-	5	4	15.3	6.5	10.9	-	1.5	7	0	66	-	19	-	-2.6	7	3	-	-	76.7	-	-	-	-
	11-20	22.0	-	7	4	15.9	6.4	11.1	-	2.0	15	0	68	-	21	-	N/A	N/A	-	-	-	42.0	-	-	-	-
	21-END	23.4	-	5	5	17.2	9.4	13.3	-	5.9	26	0	89	-	36	-	2.5	26	0	-	-	N/A	-	-	-	-
	MONTH	59.2	102	17	13	16.1	7.4	11.8	-	1.5	7	0	223	-	76	-	N/A	N/A	-	-	-	N/A	-	-	-	-
Clones Co. Monaghan	1-10	16.8	-	5	4	16.7	6.8	11.8	-	2.8	7	0	74	-	27	-	-1.4	7	1	14.2	-	80.2	-	3.8	0	-
	11-20	40.7	-	8	5	15.7	6.8	11.3	-	3.7	15	0	69	-	21	-	-2.1	15	2	12.9	-	34.5	-	3.4	2	-
	21-END	31.2	-	8	4	16.7	9.1	12.9	-	6.0	25	0	85	-	32	-	2.0	25	0	14.1	-	38.0	-	3.8	0	-
	MONTH	88.7	129	21	13	16.4	7.6	12.0	-1.0	2.8	7	0	228	84	80	73	-2.1	15	3	13.7	-2.1	152.7	98	3.7	2	78
Birr Co. Offaly	1-10	23.4	-	7	6	17.5	6.7	12.1	-	2.1	1	0	79	-	31	-	-2.0	1	3	16.0	-	53.3	-	2.9	0	-
	11-20	26.6	-	5	5	15.6	7.0	11.3	-	2.1	14	0	70	-	22	-	-2.1	14	2	14.1	-	35.0	-	3.2	1	-
	21-END	18.1	-	6	3	17.2	9.5	13.4	-	6.6	26	0	90	-	36	-	3.8	23	0	15.2	-	30.4	-	3.3	1	-
	MONTH	68.1	131	18	14	16.8	7.8	12.3	-1.1	2.1	1	0	239	84	88	74	-2.1	14	5	15.1	-1.5	118.7	73	3.1	2	70

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

JUNE 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 ⁻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	21.3	-	7	5	17.3	7.4	12.3	-	3.0	7	0	80	-	31	-	-1.6	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	11-20	39.8	-	6	5	15.8	6.3	11.1	-	2.7	14	0	69	-	21	-	-3.5	14	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	21-END	42.1	-	9	6	16.8	8.9	12.9	-	4.3	25	0	85	-	33	-	-1.5	25	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	MONTH	103.2	-	22	16	16.6	7.6	12.1	-	2.7	14	0	232	-	85	-	-3.5	14	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Dungarvan (Carriglea) Co. Waterford	1-10	11.5	-	6	3	16.8	7.7	12.3	-	1.9	1	0	80	-	30	-	1.5	2	0	-	-	56.9	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	11-20	54.0	-	4	4	16.7	6.7	11.7	-	3.8	15	0	73	-	26	-	2.8	14	0	-	-	49.3	-	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	41.6	-	7	6	17.0	9.5	13.2	-	4.5	25	0	89	-	36	-	4.0	25	0	-	-	32.1	-	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	107.1	195	17	13	16.8	8.0	12.4	-	1.9	1	0	242	-	91	-	1.5	2	0	-	-	138.3	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mullingar Co. Westmeath	1-10	9.5	-	5	3	16.1	7.3	11.7	-	2.3	7	0	74	-	25	-	-0.4	7	1	14.4	-	79.5	-	3.3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	28.7	-	8	6	15.5	6.1	10.8	-	1.6	16	0	65	-	19	-	-1.2	14	2	13.6	-	51.2	-	3.2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	21-END	27.5	-	8	4	16.7	9.0	12.8	-	6.1	25	0	84	-	32	-	4.1	25	0	14.7	-	37.7	-	3.4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MONTH	65.7	104	21	13	16.1	7.5	11.8	-1.1	1.6	16	0	223	80	76	66	-1.2	14	3	14.2	-1.8	168.4	101	3.3	0	79	-	-	-	-	-	-	-	-	-	-	-	-	-	-
J.F.K. Park Co. Wexford	1-10	14.6	-	6	4	16.3	9.2	12.7	-	3.6	7	0	84	-	32	-	-1.4	7	2	-	-	54.1	-	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	46.9	-	4	4	15.4	7.7	11.5	-	5.1	14	0	71	-	21	-	-0.7	20	2	-	-	52.2	-	3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	14.2	-	5	4	16.1	9.3	12.7	-	6.3	25	0	83	-	30	-	-0.9	25	2	-	-	25.5	-	3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	75.7	135	15	12	15.9	8.7	12.3	-	3.6	7	0	238	-	83	-	-1.4	7	6	-	-	131.8	-	3.5	-	75	-	-	-	-	-	-	-	-	-	-	-	-	-	
Clonroche Co. Wexford	1-10	23.1	-	5	5	16.2	8.0	12.1	-	3.0	7	0	77	-	28	-	-2.8	7	2	-	-	61.9	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	42.7	-	5	5	15.6	6.4	11.0	-	2.4	14	0	66	-	20	-	-2.9	14	6	-	-	56.5	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	25.4	-	7	6	16.0	8.8	12.4	-	4.6	25	0	80	-	27	-	-1.9	25	1	-	-	28.5	-	1.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	91.2	145	17	16	15.9	7.7	11.8	-	2.4	14	0	223	-	74	-	-2.9	14	9	-	-	146.9	-	1.8	-	67	-	-	-	-	-	-	-	-	-	-	-	-	-	
Johnstown Castle Co. wexford	1-10	15.6	-	7	5	15.1	8.6	11.8	-	5.0	7	0	74	-	23	-	2.2	7	0	-	-	59.0	-	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	47.5	-	5	4	14.8	8.3	11.6	-	5.6	14	0	72	-	20	-	0.6	15	0	-	-	58.9	-	3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	14.7	-	9	7	15.7	9.9	12.8	-	7.1	23	0	84	-	29	-	3.1	23	0	-	-	30.3	-	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	77.8	134	21	16	15.2	8.9	12.1	-	5.0	7	0	230	-	72	-	0.6	15	0	-	-	148.2	-	3.6	-	76	-	-	-	-	-	-	-	-	-	-	-	-	-	
Rosslare Co. Wexford	1-10	12.4	-	7	2	14.2	9.7	11.9	-	6.4	7	0	75	-	22	-	4.9	7	0	15.0	-	59.5	-	6.1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	34.7	-	4	3	14.7	9.2	12.0	-	7.5	14	0	76	-	22	-	3.0	15	0	15.0	-	67.2	-	4.7	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	8.8	-	7	3	15.7	10.5	13.1	-	8.3	23	0	87	-	32	-	4.5	25	0	15.2	-	33.0	-	5.3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	55.9	114	18	8	14.9	9.8	12.3	-1.0	6.4	7	0	238	85	75	70	3.0	15	0	15.1	-1.9	159.7	75	5.4	4	86	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 2 GLOBAL SOLAR RADIATION

STATION	PERIOD	AMOUNT MJ/m ²
Malin Head Co. Donegal	1-10	218.50
	11-20	212.62
	21-end	164.73
	Month	595.85
Dublin Airport Co. Dublin	1-10	199.87
	11-20	161.02
	21-end	155.44
	Month	516.33
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	174.28
	11-20	188.55
	21-end	131.94
	Month	494.77
Kilkenny Co. Kilkenny	1-10	169.03
	11-20	158.71
	21-end	128.19
	Month	455.93
Belmullet Co. Mayo	1-10	176.83
	11-20	187.38
	21-end	170.13
	Month	534.34
Clones Co. Monaghan	1-10	212.42
	11-20	160.64
	21-end	161.81
	Month	534.87
Birr Co. Offaly	1-10	179.65
	11-20	164.08
	21-end	159.23
	Month	502.96

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	30.2	6	20	-
	11-20	29.8	11	31	-
	21-end	14.9	4	35	-
	Month	74.9	-	-	-
Kinsealy Co. Dublin	1-10	25.5	1	13	-
	11-20	26.1	-	10	3
	21-end	22.5	8	18	-
	Month	74.1	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	25.6	15	15	-
	11-19	20.1	-	8	7
	20-end	10.3	-	0	64
	Month	56.0	-	-	-
Ballinamore Co. Leitrim	1-10	38.5	22	22	-
	11-20	24.9	-	19	3
	21-end	6.1	-	0	28
	Month	69.5	-	-	-
Glenamoy Co. Mayo	1-10	18.0	-	0	4
	11-20	18.0	-	0	5
	21-end	15.2	-	0	28
	Month	51.2	-	-	-
Johnstown Castle Co. Wexford	1-11	35.0	10	27	-
	12-20	28.1	-	17	10
	21-end	13.3	-	16	1
	Month	76.4	-	-	-

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	15.8	14.2	12.7	- 0.3
	11-20	14.5	13.2	11.7	- 0.2	92	80
	21-end	15.3	14.3	12.9	- 0.3	94	73
Mineral	1-10	17.6	14.0	10.5	0.0	333	193
	11-20	15.8	13.1	10.3	- 0.1	158	159
	21-end	16.3	14.1	12.1	0.0	137	96

special topic

SOIL MANAGEMENT AND THE WEATHER

(Continued)

The Natural Drying Pattern of Soils and Seedbed Preparation:

When a well-drained soil is left undisturbed in Spring it dries out in a very well-defined way. After a week of good drying weather the moisture content of the top 2-3cm is very low, the soil drying into a very hard dry condition. From 3-6cm the soil is more moist and ideal for working into a seedbed. Below 6cm the soil is wetter and would smear badly if worked. This condition develops quite rapidly after the onset of drying and once the dry crust has formed, little further water loss takes place from depth. If high air temperatures accompany drying conditions then the drying depth would be increased below 6cm.

Providing the tilth in the 3-6cm layer was acceptable for sowing this natural drying pattern would be ideal for plant requirements. The dry top would carry light traffic, the seed could be placed in the moist friable soil and there would be plenty of moisture at depth for use later in the season.

On lighter soils where moisture conservation is important the dry crust provides an effective barrier against moisture loss. Unnecessary soil disturbance would simply increase moisture loss, making satisfactory crop establishment more dependent upon rain after sowing. On heavier soils unnecessary soil disturbance may bring the wetter soil below 6cm to the surface which would be too wet to work into a seedbed. Therefore natural drying in Spring can produce satisfactory conditions without much assistance.

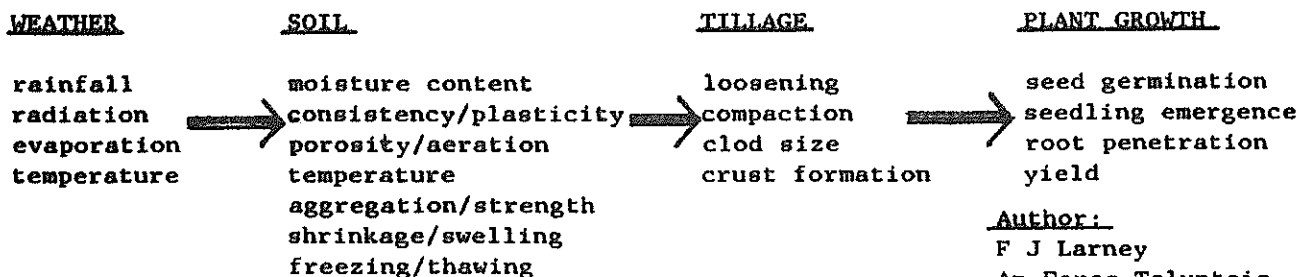
With the vast array of cultivation implements that are available today it is something of an anti-climax to be reminded that frost and natural weathering are still the best and cheapest cultivators. Natural weathering provides the quality that helps stabilise soil, making it more resistant to drying out and helping to maintain the all-important surface structure.

Early ploughing before the winter is the key to a successful seedbed in Spring. The soil gets a chance to be worked on by frost, rain and wind and only superficial seedbed preparation is needed in Spring. There is a much wider range of working moisture contents with weathered than unweathered clods. On drying, large unweathered clods tend to become hard and dry in the outside and remain wet in the inside which makes the timing of operations difficult. This does not occur to the same degree with weathered clods. Therefore there is much to be gained from working in early ploughed weathered soil than in late-ploughed unweathered soil.

Summary:

The farmer must always gain the full benefit of natural weather phenomena which is even more important today than in the past. The cost of time, labour and machinery can be greatly reduced by proper exploitation of weathering effects in seedbed cultivations while the opposite holds if the farmer is attempting to work against the weather in poor soil conditions. Not only does the farmer lose money by working in poor weather and soil conditions at cultivation time but he is also likely to lose through low crop yields caused by poor plant establishment and in subsequent years through possible irreparable damage to soil structure.

Soil/weather interactions and their effect on plant growth can be summarised as follows:-



Author:
F J Larney
An Foras Taluntais
Oak Park Research Centre
Carlow

(Concluded)