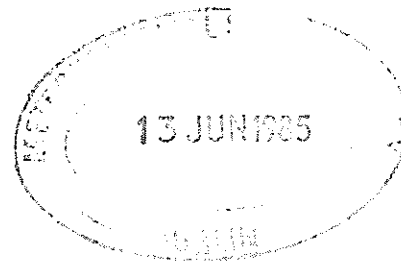




MAY 1985



AGROMETEOROLOGICAL BULLETIN

Apart from some frontal rain in southwestern areas on the 1st, a ridge of high pressure was the main influence on the weather from the 1st to 3rd. A trough over the country on the 4th and 5th gave widespread rain and weakened on the 6th. A ridge on the 7th yielded to weak frontal troughs on the 8th; following the clearance of the troughs to the northeast on the 9th, a fresh northwest airflow with showers developed.

Subsequently an extensive area of high pressure extended from the Azores to Scandinavia with low pressure over northwestern Europe. This effected a northeast airflow over the country and frontal troughs extended from the continent over Britain. Pressure yielded over Ireland on the 13th and slack thundery troughs moved in from the east. A second and more active depression centre moved westwards over the country on the 15th and was followed by a recovery of the high on the 16th. Weak fronts affected western and northern coastal areas on the 17th/18th and extended to eastern areas on the 19th as the parent trough swung slowly down over England to the continent; an extension of the trough subsequently lay east/west across the centre of the country on the 20th/21st.

A slack pressure pattern on the 22nd preceded the general influx of a very warm and humid air mass associated with approaching troughs and depressions from the southwest between 23rd and 27th. Extensive very heavy and thundery rain occurred on the 25th and 26th which was exceptionally heavy in the southwest and west. Cooler and fresher conditions in a westerly airflow set in on the 27th but a cell of high pressure off the west of Spain drifted north-northeastwards to the North Sea and intensified, giving bright, dry and very warm conditions through to the end of the month.

Precipitation:

Monthly rainfall amounts varied considerably. Amounts were generally above or well above normal, being very high in western areas, but in the south and east they were well below normal. Values varied from 223% of normal at Claremorris to 52% at Roche's Point. Wettest days were 5th (except the northwest), 9th, 15th (northern half) and from 23rd to 27th. Rainfall was particularly heavy in the southwest and west on 25th and 26th; over 90mm were recorded in Claremorris on those days. No soil moisture deficit remained in the west and northmidlands at the end of the month whereas in southern, eastern and southmidland areas moderate deficits existed (see Table 3). Spells of weather favouring the spread of potato blight occurred in the south and west from 25th to 27th.

Temperature:

Mean daily temperature was below normal almost everywhere. Values varied from 1.0C° below normal at Belmullet to normal at Galway. Soil temperature (100mm) varied from 1.0C° below average at Clones to 0.1C° above at Malin Head. There was a cold spell in the first ten days, when soil temperatures were as much as 1.5C° below average; this was succeeded by a relatively mild spell, which was especially warm in the southwest, and temperatures in the final period were near normal overall. Some air frost and sharp to severe ground frost developed on the 3rd and ground frost occurred on many occasions except in the period 13th to 27th inclusive.

Sunshine and Radiation:

Sunshine hours were below normal generally and well below in parts of the midlands and west. Values varied from 101% of normal at Valentia Observatory to 75% at Casement Aerodrome. Solar radiation was only 85% of average at Kilkenny, 89% and 90% at Birr and Dublin Airport and 105% of average at Valentia Observatory.

Wind:

Strong winds with gale gusts were widespread on 9th, 24th to 26th, and in southern areas on 5th and 10th.

Summary:

Wet, except in southern areas, rather cold and generally dull.

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

MAY 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 (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
Carlow (Oak Park) Co. Carlow	1-10	26.1	-	5	5	11.6	4.4	8.0	-	1.0	3	0	58	-	5	-	-2.2	3	2	-	-	38.1	-	4.0	-	-
	11-20	15.8	-	5	5	14.7	7.6	11.2	-	1.7	12	0	68	-	18	-	-1.0	12	1	-	-	32.6	-	3.0	-	-
	21-END	11.5	-	5	4	15.7	7.1	11.4	-	2.4	30	0	78	-	24	-	0.0	30	0	-	-	60.9	-	3.1	-	-
	MONTH	53.4	89	15	14	14.0	6.4	10.2	-	1.0	3	0	184	-	47	-	-2.2	3	3	-	-	131.6	-	3.4	-	62
Shannon Airport Co. Clare	1-10	34.2	-	4	4	12.6	5.5	9.0	-	1.9	3	0	47	-	8	-	-1.2	7	2	10.6	-	46.3	-	4.3	1	-
	11-20	9.3	-	2	1	16.2	8.5	12.4	-	2.8	11	0	80	-	28	-	0.6	11	0	13.5	-	42.8	-	3.2	0	-
	21-END	27.8	-	6	5	16.6	9.0	12.8	-	5.8	28	0	92	-	34	-	1.1	29	0	14.1	-	76.3	-	3.7	1	-
	MONTH	71.3	121	12	10	15.2	7.7	11.4	-0.1	1.9	3	0	219	94	70	89	-1.2	7	2	12.8	-0.4	165.4	89	3.7	2	79
Cork Airport Co. Cork	1-10	13.2	-	6	4	11.8	4.5	8.2	-	2.1	5	0	39	-	5	-	-1.0	3	2	9.8	-	52.0	-	6.3	3	-
	11-20	6.2	-	3	3	14.7	7.6	11.1	-	3.6	12	0	68	-	18	-	0.4	12	0	12.5	-	47.4	-	4.8	0	-
	21-END	34.3	-	6	3	14.2	7.6	10.9	-	3.5	28	0	72	-	18	-	0.5	28	0	12.8	-	67.7	-	6.7	4	-
	MONTH	53.7	62	15	10	13.6	6.6	10.1	-0.3	2.1	5	0	179	94	41	79	-1.0	3	2	11.7	-0.4	167.1	86	6.0	7	79
Fermoy (Coolnakilla) Co. Cork	1-10	31.5	-	9	6	11.1	3.1	7.1	-	1.5	10	0	31	-	3	-	-5.3	3	5	-	-	N/A	-	5.1	-	-
	11-20	8.3	-	4	1	14.2	6.6	10.4	-	0.8	11	0	61	-	15	-	-2.9	12	1	-	-	N/A	-	3.7	-	-
	21-END	40.0	-	7	3	14.1	7.2	10.6	-	3.4	28	0	69	-	16	-	-2.0	29	3	-	-	65.5	-	4.5	-	-
	MONTH	79.8	-	20	10	13.2	5.7	9.4	-	0.8	11	0	161	-	33	-	-5.3	3	9	-	-	N/A	-	4.4	-	N/A
Fermoy (Moore Park) Co. Cork	1-10	29.8	-	5	4	12.4	3.9	8.2	-	0.9	3	0	41	-	6	-	-4.1	3	4	-	-	44.7	-	3.5	-	-
	11-20	1.5	-	2	1	16.3	7.3	11.8	-	0.0	12	0	76	-	26	-	-3.4	12	1	-	-	36.0	-	2.4	-	-
	21-END	30.3	-	5	5	15.5	6.7	11.1	-	0.7	28	0	77	-	24	-	-2.4	28	3	-	-	60.0	-	2.8	-	-
	MONTH	61.6	91	12	10	14.8	6.0	10.4	-	0.0	12	0	193	-	56	-	-4.1	3	8	-	-	140.7	-	2.9	-	55
Roches Point Co. Cork	1-10	12.8	-	5	3	12.2	5.8	9.0	-	3.6	5	0	47	-	7	-	-1.9	3	2	10.9	-	53.8	-	6.9	3	-
	11-20	2.2	-	4	1	14.0	8.7	11.4	-	5.5	12	0	70	-	17	-	0.4	12	0	13.9	-	44.9	-	4.0	0	-
	21-END	19.8	-	5	3	14.1	8.5	11.3	-	4.0	28	0	76	-	20	-	1.5	28	0	13.4	-	71.1	-	6.4	5	-
	MONTH	34.8	52	14	7	13.4	7.7	10.6	-0.5	3.6	5	0	192	90	44	80	-1.9	3	2	12.8	-0.1	169.8	85	5.8	8	78
Glencolumbkille Co. Donegal	1-10	17.9	-	5	4	11.2	4.7	7.9	-	1.8	7	0	37	-	3	-	-5.4	7	5	-	-	58.6	-	2.7	-	-
	11-20	24.4	-	5	4	15.3	7.0	11.1	-	2.3	11	0	68	-	20	-	-5.0	11	2	-	-	48.3	-	2.9	-	-
	21-END	101.2	-	4	4	15.0	5.9	10.4	-	3.0	28	0	67	-	19	-	-3.0	28	6	-	-	88.6	-	2.8	-	-
	MONTH	143.5	-	14	12	13.8	5.8	9.8	-	1.8	7	0	171	-	42	-	-5.4	7	13	-	-	195.5	-	2.8	-	74

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

MAY 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. (PEWMAN) (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	16.0	-	6	5	11.0	3.1	7.1	-	-0.9	2	2	31	-	3	-	-3.6	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	11.3	-	5	3	15.5	7.0	11.3	-	-1.0	11	1	71	-	22	-	-3.2	11	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	21-END	102.5	-	6	5	16.0	4.7	10.4	-	1.3	29	0	69	-	23	-	-0.6	23	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	MONTH	129.8	151	17	13	14.2	5.0	9.6	-	-1.0	11	3	169	-	48	-	-3.6	2	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Malin Head Co. Donegal	1-10	10.0	-	4	3	9.4	6.0	7.7	-	3.5	7	0	33	-	0	-	0.3	2	0	10.3	-	46.1	-	6.5	3	-	-	-	-	-	-	-	-	-	-	
	11-20	5.9	-	6	2	12.5	8.3	10.4	-	4.0	11	0	60	-	11	-	-1.3	11	2	12.7	-	46.6	-	6.6	0	-	-	-	-	-	-	-	-	-	-	
	21-END	40.5	-	6	6	13.6	6.8	10.2	-	4.0	22	0	64	-	15	-	-0.5	22	1	13.4	-	82.1	-	5.9	3	-	-	-	-	-	-	-	-	-	-	
	MONTH	56.4	97	16	11	11.9	7.0	9.4	-0.7	3.5	7	0	157	83	26	60	-1.3	11	3	12.2	+0.1	174.8	87	6.3	6	78	-	-	-	-	-	-	-	-		
Casement Aerodrome Co. Dublin	1-10	30.3	-	6	5	11.5	3.9	7.7	-	0.4	3	0	35	-	5	-	-4.1	3	3	9.6	-	29.7	-	4.1	1	-	-	-	-	-	-	-	-	-		
	11-20	59.4	-	6	5	14.0	8.0	11.0	-	5.3	12	0	66	-	16	-	0.5	12	0	12.0	-	35.4	-	4.1	0	-	-	-	-	-	-	-	-	-	-	
	21-END	6.5	-	6	4	16.0	7.1	11.5	-	3.2	29	0	79	-	26	-	-0.5	31	1	13.2	-	78.6	-	5.0	3	-	-	-	-	-	-	-	-	-	-	
	MONTH	95.2	164	18	14	13.9	6.4	10.1	-0.4	0.4	3	0	180	90	47	71	-4.1	3	4	11.7	-	142.7	75	4.4	4	68	-	-	-	-	-	-	-	-		
Dublin Airport Co. Dublin	1-10	13.7	-	5	2	11.9	4.4	8.2	-	1.7	3	0	39	-	6	-	-1.0	3	2	11.1	-	44.4	-	4.4	0	-	-	-	-	-	-	-	-	-	-	
	11-20	45.6	-	6	6	13.6	8.3	11.0	-	5.6	12	0	66	-	15	-	1.6	12	0	12.9	-	37.0	-	4.2	0	-	-	-	-	-	-	-	-	-	-	-
	21-END	10.8	-	5	2	15.6	8.0	11.8	-	4.0	28	0	81	-	26	-	0.3	30	0	14.1	-	77.4	-	4.1	2	-	-	-	-	-	-	-	-	-	-	
	MONTH	70.1	121	16	10	13.8	6.9	10.4	-0.2	1.7	3	0	186	90	47	80	-1.0	3	2	12.7	-0.2	158.8	81	4.2	2	75	-	-	-	-	-	-	-	-		
Kinsealy Co. Dublin	1-10	17.4	-	4	3	11.9	4.7	8.3	-	2.3	3	0	40	-	6	-	-1.9	7	2	-	-	38.0	-	3.1	-	-	-	-	-	-	-	-	-	-	-	
	11-20	43.8	-	6	6	13.1	8.3	10.7	-	3.6	12	0	63	-	13	-	-0.6	12	1	-	-	35.1	-	2.9	-	-	-	-	-	-	-	-	-	-	-	
	21-END	9.4	-	4	3	15.3	7.7	11.5	-	3.3	30	0	78	-	23	-	-1.7	30	1	-	-	71.7	-	3.4	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	70.6	126	14	12	13.5	6.9	10.2	-	2.3	3	0	181	-	42	-	-1.9	7	4	-	-	144.8	-	3.1	-	65	-	-	-	-	-	-	-	-	-	
Galway Co. Galway	1-10	31.5	-	5	5	11.9	5.3	8.6	-	2.2	7	0	43	-	5	-	-2.7	7	1	10.6	-	49.2	-	4.6	1	-	-	-	-	-	-	-	-	-	-	
	11-20	13.4	-	4	3	15.7	8.0	11.9	-	3.5	11	0	75	-	24	-	0.9	12	0	13.1	-	44.2	-	3.9	0	-	-	-	-	-	-	-	-	-	-	
	21-END	65.7	-	8	5	15.9	7.9	11.9	-	5.0	28	0	83	-	27	-	-0.5	28	1	14.2	-	84.7	-	3.9	0	-	-	-	-	-	-	-	-	-	-	
	MONTH	110.6	158	17	13	14.6	7.1	10.8	+0.0	2.2	7	0	200	-	56	-	-2.7	7	2	12.7	-	178.1	92	4.2	1	81	-	-	-	-	-	-	-	-	-	
Killarney (Muckross House) Co. Kerry	1-10	42.8	-	6	5	12.0	5.6	8.8	-	2.0	4	0	45	-	6	-	-1.2	4	1	-	-	48.6	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	9.5	-	4	2	16.1	7.4	11.7	-	1.4	11	0	74	-	25	-	-2.0	11	1	-	-	47.9	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	71.3	-	7	6	15.2	7.4	11.3	-	2.5	29	0	77	-	23	-	-1.0	30	3	-	-	54.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
	MONTH	123.6	126	17	13	14.4	6.9	10.6	-	1.4	11	0	196	-	53	-	-2.0	11	5	-	-	150.5	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

MAY 1966

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. (FENMAN) (mm)		
						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	45.7	-	7	7	12.0	6.3	9.1	-	2.3	4	0	49	-	6	-	-1.5	4	1	11.3	-	49.0	-	5.5	3	-
	11-20	1.9	-	2	1	15.6	7.7	11.7	-	2.4	11	0	73	-	23	-	-1.1	11	1	19.0	-	69.0	-	3.6	0	-
	21-END	84.0	-	6	4	15.3	8.0	11.7	-	4.2	29	0	80	-	25	-	-0.5	30	1	14.5	-	70.4	-	4.6	5	-
	MONTH	131.6	155	15	12	14.4	7.4	10.9	-0.3	2.3	4	0	201	91	54	83	-1.5	4	3	13.6	+0.4	190.0	101	4.6	6	60
Ardfort (Liscahane) Co. Kerry	1-10	53.1	-	7	4	11.9	4.8	8.3	-	1.0	7	0	41	-	5	-	-2.0	7	3	-	54.7	-	-	-	-	-
	11-20	3.6	-	4	2	15.6	6.2	10.9	-	0.1	11	0	67	-	20	-	-2.5	11	3	-	50.5	-	-	-	-	-
	21-END	67.2	-	7	7	15.7	7.6	11.7	-	2.8	30	0	80	-	25	-	-2.6	30	3	-	66.5	-	-	-	-	-
	MONTH	123.9	-	18	13	14.4	6.3	10.4	-	0.1	11	0	169	-	51	-	-2.6	30	9	-	161.5	-	-	-	-	-
Lullymore Co. Kildare	1-10	29.6	-	5	5	11.2	2.6	6.9	-	-2.2	3	2	30	-	4	-	-0.2	3	6	-	34.9	-	3.4	-	-	-
	11-20	45.1	-	5	5	14.2	6.4	10.3	-	2.7	12	0	60	-	14	-	-2.0	12	1	-	54.0	-	3.6	-	-	-
	21-END	9.1	-	5	5	15.8	5.9	10.9	-	0.5	31	0	74	-	23	-	-5.5	30	3	-	66.4	-	3.6	-	-	-
	MONTH	83.8	133	15	15	13.8	5.0	9.4	-	-2.2	3	2	163	-	41	-	-0.2	3	10	-	130.1	-	3.5	-	-	58
Kilkenny Co. Kilkenny	1-10	23.5	-	4	4	12.0	4.2	8.1	-	0.2	3	0	39	-	6	-	-5.6	3	4	10.2	-	40.1	-	3.5	2	-
	11-20	5.8	-	4	2	15.7	7.9	11.8	-	2.0	12	0	75	-	24	-	-2.1	12	1	15.6	-	57.9	-	2.0	0	-
	21-END	14.8	-	5	4	15.9	6.6	11.2	-	1.5	29	0	78	-	25	-	-4.0	30	4	13.7	-	61.0	-	3.1	0	-
	MONTH	44.1	70	13	10	14.6	6.2	10.4	-0.3	0.2	3	0	192	92	55	75	-5.6	3	9	12.5	-0.5	147.0	92	3.1	2	60
Mooncoin (Silverspring) Co. Kilkenny	1-10	29.6	-	4	4	12.4	4.2	8.3	-	0.2	3	0	41	-	7	-	-5.7	3	5	-	54.6	-	-	-	-	-
	11-20	3.7	-	3	1	15.9	7.7	11.8	-	1.2	12	0	75	-	24	-	-3.9	12	1	-	42.9	-	-	-	-	-
	21-END	23.6	-	6	3	15.5	6.4	10.9	-	0.7	29	0	75	-	23	-	-2.6	30	4	-	60.1	-	-	-	-	-
	MONTH	56.9	81	13	8	14.6	6.1	10.4	-	0.2	3	0	191	-	54	-	-5.7	3	10	-	157.6	-	-	-	-	-
Bellinamore Co. Leitrim	1-10	8.7	-	5	4	11.7	3.9	7.8	-	0.9	7	0	36	-	5	-	-7.3	3	5	-	41.3	-	3.0	-	-	-
	11-20	37.0	-	5	5	15.2	7.5	11.4	-	2.0	12	0	70	-	20	-	-5.7	12	2	-	36.8	-	2.3	-	-	-
	21-END	49.8	-	7	6	16.3	5.7	11.0	-	1.7	29	0	74	-	24	-	-4.0	29	4	-	67.5	-	2.0	-	-	-
	MONTH	95.5	131	17	15	14.5	5.7	10.1	-	0.9	7	0	181	-	49	-	-7.3	3	11	-	145.6	-	2.5	-	-	62
Ardee (Bohernamoe) Co. Louth	1-10	17.2	-	4	3	12.1	N/A	N/A	-	N/A	N/A	N/A	N/A	-	N/A	-	N/A	N/A	-	-	-	-	-	-	-	-
	11-20	44.3	-	6	6	14.8	6.7	10.7	-	0.1	12	0	64	-	18	-	-0.1	12	1	-	-	-	-	-	-	-
	21-END	27.4	-	6	5	15.9	6.0	10.9	-	1.2	30	0	74	-	23	-	-3.2	30	1	-	-	-	-	-	-	-
	MONTH	88.9	148	16	14	14.3	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 1 (CONTINUED)

MAY 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
Ballinrobe (Creagh) Co. Mayo	1-10	38.7	-	6	6	12.4	5.0	8.7	-	1.0	7	0	43	-	7	-	-6.1	7	3	-	-	44.4	-	2.7	-	-
	11-20	23.1	-	5	4	15.3	6.6	10.9	-	1.1	11	0	67	-	19	-	-6.5	11	4	-	-	38.1	-	2.6	-	-
	21-END	113.5	-	7	7	16.4	6.0	11.2	-	2.4	28	0	76	-	25	-	-3.5	29	4	-	-	68.4	-	2.4	-	-
	MONTH	175.3	219	18	17	14.7	5.8	10.3	-	1.0	7	0	186	-	51	-	-6.5	11	11	-	-	150.9	-	2.6	-	60
Belmullet Co. Mayo	1-10	24.9	-	8	6	11.4	4.4	7.9	-	0.2	7	0	37	-	4	-	-2.6	3	2	11.0	-	50.5	-	5.0	1	-
	11-20	18.5	-	3	3	14.2	7.6	10.9	-	0.7	11	0	66	-	16	-	-2.6	11	1	13.2	-	54.5	-	5.4	0	-
	21-END	75.4	-	6	4	14.1	6.5	10.3	-	4.3	28	0	65	-	16	-	0.1	28	0	13.4	-	81.7	-	5.0	2	-
	MONTH	118.8	177	17	13	13.2	6.2	9.7	-1.0	0.2	7	0	167	82	36	64	-2.6	3	3	12.6	-0.0	186.7	93	5.1	3	76
Claremorris Co. Mayo	1-10	23.9	-	5	5	12.1	3.7	7.9	-	-0.4	7	1	38	-	6	-	-4.2	7	4	9.8	-	41.9	-	4.4	1	-
	11-20	29.1	-	5	4	15.0	6.6	10.8	-	0.2	11	0	66	-	17	-	-3.9	11	2	12.0	-	35.1	-	3.9	0	-
	21-END	107.8	-	7	6	16.2	6.2	11.2	-	1.6	28	0	76	-	25	-	-1.6	29	2	13.0	-	60.1	-	3.4	1	-
	MONTH	160.8	223	17	15	14.5	5.5	10.0	-0.4	-0.4	7	1	179	91	49	77	-4.2	7	8	11.6	-0.4	137.1	80	3.9	2	64
Glenamoy Co. Mayo	1-10	26.4	-	5	4	11.6	3.8	7.7	-	-1.0	7	2	36	-	4	-	-3.0	7	3	-	-	46.5	-	2.6	-	-
	11-20	21.1	-	4	4	15.0	6.4	10.7	-	-1.2	11	1	65	-	18	-	-3.5	11	1	-	-	49.3	-	2.8	-	-
	21-END	84.2	-	7	4	15.1	5.7	10.4	-	3.1	28	0	67	-	18	-	0.2	28	0	-	-	80.4	-	2.2	-	-
	MONTH	131.7	159	16	12	13.9	5.3	9.6	-	-1.2	11	3	168	-	41	-	-3.5	11	4	-	-	176.2	-	2.5	-	68
Dunsany (Grange) Co. Meath	1-10	25.1	-	5	5	11.2	2.9	7.1	-	-0.4	3	1	31	-	4	-	-7.0	3	5	-	-	32.5	-	-	-	-
	11-20	37.1	-	6	6	13.6	7.3	10.4	-	1.3	12	0	61	-	15	-	-2.0	12	1	-	-	36.9	-	-	-	-
	21-END	23.7	-	7	5	15.3	6.3	10.8	-	1.6	30	0	72	-	21	-	-1.4	30	5	-	-	74.8	-	-	-	-
	MONTH	85.9	139	18	16	13.4	5.5	9.5	-	-0.4	3	1	164	-	39	-	-7.0	3	11	-	-	144.2	-	-	-	-
Clones Co. Monaghan	1-10	9.3	-	5	3	11.5	4.1	7.8	-	1.5	2	0	36	-	4	-	-3.8	7	3	9.1	-	39.9	-	3.6	1	-
	11-20	30.7	-	6	5	14.6	7.4	11.0	-	3.0	12	0	67	-	17	-	-1.6	12	1	11.6	-	40.6	-	3.7	0	-
	21-END	34.5	-	6	6	16.1	6.5	11.3	-	3.4	29	0	76	-	25	-	-1.5	29	2	12.9	-	77.3	-	3.6	2	-
	MONTH	74.5	115	17	14	14.1	6.0	10.1	-0.3	1.5	2	0	179	90	46	72	-3.8	7	6	11.3	-1.0	157.8	93	3.6	3	69
Birr Co. Offaly	1-10	31.5	-	4	4	11.8	3.8	7.8	-	-1.1	3	1	38	-	6	-	-5.5	3	3	10.3	-	40.5	-	3.1	1	-
	11-20	20.4	-	7	4	14.8	7.4	11.1	-	2.4	12	0	68	-	18	-	-0.6	12	2	13.0	-	36.4	-	2.9	0	-
	21-END	19.6	-	6	6	16.3	7.4	11.8	-	3.5	28	0	82	-	28	-	-1.5	30	3	14.2	-	71.2	-	3.1	2	-
	MONTH	71.5	115	17	14	14.4	6.2	10.3	-0.4	-1.1	3	1	187	89	52	73	-5.5	3	8	-12.6	-0.4	148.1	83	3.0	3	66

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

MAY 1985

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND														
		AMOUNT	X OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10cm)				TOTAL NO. OF HOURS	X 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	X OF AVERAGE	DEGREE DAYS ABOVE 10.0°C	X OF AVERAGE	LOWEST °GRASS-MIN*	DATE	DAYS WITH GROUND FROST						MEAN DAILY	DIFFERENCE FROM AVERAGE										
Dundrum (Knockavilla) Co. Tipperary	1-10	35.1	-	5	4	12.0	3.9	8.0	-	0.4	3	0	39	-	6	-	-4.6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11-20	5.1	-	4	2	15.8	7.4	11.6	-	1.5	12	0	73	-	23	-	-3.0	12	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	21-END	20.7	-	5	4	15.8	6.2	11.0	-	0.8	30	0	75	-	23	-	-3.0	28	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MONTH	60.9	-	14	10	14.6	5.8	10.2	-	0.4	3	0	187	-	53	-	-4.6	3	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dungervan (Carriglea) Co. Waterford	1-10	22.3	-	4	4	13.0	4.0	8.5	-	0.0	3	0	44	-	9	-	-1.0	3	2	-	-	-	-	56.5	-	2.5	-	-	-	-	-	-	-	-	-	
	11-20	2.3	-	2	1	16.4	8.0	12.2	-	1.5	12	0	79	-	28	-	0.5	12	0	-	-	-	-	46.7	-	2.0	-	-	-	-	-	-	-	-	-	-
	21-END	30.1	-	6	4	15.3	7.1	11.2	-	2.1	31	0	77	-	23	-	1.4	29	0	-	-	-	-	70.2	-	2.7	-	-	-	-	-	-	-	-	-	-
	MONTH	54.7	70	12	9	14.9	6.4	10.6	-	0.0	3	0	199	-	61	-	-1.0	3	2	-	-	-	-	173.4	-	2.4	-	-	-	-	-	-	-	-	-	67
Mullingar Co. Westmeath	1-10	27.9	-	6	4	11.4	4.1	7.7	-	1.4	3	0	35	-	4	-	-1.6	1	2	9.8	-	-	-	43.7	-	3.2	1	-	-	-	-	-	-	-	-	
	11-20	39.7	-	5	5	14.2	7.4	10.8	-	3.1	12	0	65	-	16	-	-1.1	12	1	12.0	-	-	-	39.6	-	3.3	0	-	-	-	-	-	-	-	-	
	21-END	43.2	-	8	6	15.5	6.6	11.0	-	2.3	28	0	74	-	23	-	-1.3	29	3	12.8	-	-	-	68.8	-	3.5	2	-	-	-	-	-	-	-	-	
	MONTH	110.8	165	19	15	13.8	6.0	9.9	-0.4	1.4	3	0	174	86	43	63	-1.6	1	6	11.6	-0.8	-	-	152.1	84	3.4	3	65	-	-	-	-	-	-		
J.F.K. Park Co. Wexford	1-10	30.8	-	4	4	12.8	4.4	8.6	-	1.7	3	0	44	-	8	-	-3.9	3	N/A	-	-	-	-	49.6	-	2.7	-	-	-	-	-	-	-	-	-	
	11-20	4.8	-	3	1	15.6	8.9	12.3	-	6.8	12	0	79	-	26	-	3.3	12	0	-	-	-	-	47.4	-	3.3	-	-	-	-	-	-	-	-	-	
	21-END	19.1	-	4	3	15.0	8.3	11.6	-	3.0	28	0	80	-	24	-	-2.1	28	2	-	-	-	-	58.7	-	4.6	-	-	-	-	-	-	-	-	-	
	MONTH	54.7	75	11	8	14.5	7.2	10.9	-	1.7	3	0	202	-	58	-	-3.9	3	N/A	-	-	-	-	155.7	-	3.5	-	-	-	-	-	-	-	-	73	
Clonroche Co. Wexford	1-10	24.9	-	4	4	11.9	3.3	7.6	-	-0.9	3	1	35	-	6	-	-8.1	3	5	-	-	-	-	N/A	-	1.8	-	-	-	-	-	-	-	-		
	11-20	8.6	-	5	3	15.2	7.7	11.5	-	4.3	12	0	71	-	20	-	-2.0	12	1	-	-	-	-	48.9	-	1.5	-	-	-	-	-	-	-	-	-	
	21-END	28.5	-	4	4	15.0	7.4	11.2	-	1.7	28	0	76	-	22	-	-5.4	29	4	-	-	-	-	64.8	-	2.1	-	-	-	-	-	-	-	-	-	
	MONTH	62.0	76	13	11	14.1	6.2	10.1	-	-0.9	3	1	182	-	48	-	-8.1	3	10	-	-	-	-	N/A	-	1.8	-	-	-	-	-	-	-	-	N/A	
Johnstown Castle Co. Wexford	1-10	27.1	-	4	4	11.9	4.9	8.4	-	2.6	1	0	41	-	6	-	-5.0	7	3	-	-	-	-	54.1	-	3.7	-	-	-	-	-	-	-	-	-	
	11-20	6.3	-	3	1	14.0	8.5	11.3	-	5.0	12	0	69	-	17	-	1.1	12	0	-	-	-	-	49.6	-	3.1	-	-	-	-	-	-	-	-	-	
	21-END	28.8	-	8	4	13.9	8.7	11.3	-	3.5	28	0	76	-	19	-	-1.5	29	2	-	-	-	-	77.1	-	4.6	-	-	-	-	-	-	-	-	-	
	MONTH	62.2	93	15	9	13.3	7.4	10.3	-	2.6	1	0	185	-	41	-	-5.0	7	5	-	-	-	-	180.8	-	3.8	-	-	-	-	-	-	-	-	72	
Rosslere Co. Wexford	1-10	23.2	-	5	4	11.6	6.0	8.8	-	4.3	1	0	44	-	5	-	1.3	3	0	11.2	-	-	-	54.7	-	5.3	3	-	-	-	-	-	-	-	-	
	11-20	8.3	-	4	2	13.0	9.3	11.2	-	8.2	12	0	68	-	14	-	4.2	17	0	14.0	-	-	-	57.6	-	6.5	2	-	-	-	-	-	-	-	-	
	21-END	18.1	-	5	4	13.8	9.5	11.6	-	4.4	28	0	79	-	21	-	1.3	28	0	14.5	-	-	-	80.0	-	6.4	3	-	-	-	-	-	-	-	-	
	MONTH	49.6	84	14	10	12.8	8.3	10.6	-0.2	4.3	1	0	191	92	40	80	1.3	3	0	13.3	-0.0	-	-	192.3	88	6.1	8	84	-	-	-	-	-	-		

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 2 GLOBAL (SOLAR) RADIATION

STATION	PERIOD	AMOUNT
		MJ/m ²
Malin Head Co. Donegal	1-10	155.04
	11-20	144.04
	21-end	209.37
	Month	508.55
Dublin Airport Co. Dublin	1-10	140.35
	11-20	122.59
	21-end	199.74
	Month	462.68
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	158.74
	11-20	189.45
	21-end	204.18
	Month	552.37
Kilkenny Co. Kilkenny	1-10	143.89
	11-20	142.57
	21-end	167.07
	Month	453.53
Belmullet Co. Mayo	1-10	158.67
	11-20	160.57
	21-end	202.84
	Month	522.08
Clones Co. Monaghan	1-10	135.90
	11-20	134.54
	21-end	202.02
	Month	472.46
Birr Co. Offaly	1-10	135.51
	11-20	133.52
	21-end	188.19
	Month	457.22

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	15.9	-	5	10
	11-20	21.7	6	11	-
	21-end	14.5	3	14	-
	Month	52.1	-	-	-
Kinsealy Co. Dublin	1-10	15.6	-	18	2
	11-21	17.1	-	0	27
	22-end	21.8	12	12	-
	Month	54.5	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	13.0	-	0	35
	11-20	22.5	20	20	-
	21-end	16.9	-	0	70
	Month	52.4	-	-	-
Ballinamore Co. Leitrim	1-10	9.8	1	4	-
	11-20	20.0	-	0	17
	21-end	18.4	-	0	31
	Month	48.2	-	-	-
Glenamoy Co. Mayo	1-10	13.6	-	0	13
	11-20	14.6	-	0	7
	21-end	2.2	-	0	82
	Month	30.4	-	-	-
Johnstown Castle Co. Wexford	1-10	19.0	-	13	8
	11-20	15.1	9	22	-
	21-end	23.8	-	17	5
	Month	57.9	-	-	-

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	10.5	9.5	8.4	+0.1
	11-20	12.2	11.2	10.0	-0.3	76	64
	21-end	13.1	12.3	10.7	-0.3	66	61
Mineral	1-10	11.9	9.6	7.2	+0.1	148	147
	11-20	13.8	11.5	9.6	-0.2	79	76
	21-end	14.5	12.5	10.1	-0.2	59	58

special topic

SOIL MANAGEMENT AND THE WEATHER

(Continued)

Soil Moisture Content and Compaction:

Change in soil moisture content as a result of rain and evaporation is the most important factor influencing soil management. Soil moisture content governs a soil's response to external pressures. This external pressure usually takes the form of wheel traffic associated with cultivation, planting, fertilising, spraying and harvesting operations. In general the higher the moisture content of a soil the more easily it is compacted by a given pressure. All soils have an optimum moisture content at which maximum soil density occurs for a given amount of energy applied during the compaction process. Wet soils have low strength and easily deform beneath wheels causing damage to soil structure. Dry soils have high strength and are not compacted.

In Ireland soils usually contain large amounts of moisture at cultivation time especially in Spring. This may lead to soil structural damage and compaction during cultivation which interfere with crop growth later in the season. Soil compaction causes problems in both wet growing seasons and dry growing seasons. It has been shown that reduced yields due to compaction are not as prevalent when rainfall levels are normal for a growing season. In a wet season a compact layer in a soil holds up the infiltration of water to depth, leading to water-logged conditions where plant roots suffer from lack of oxygen and may die. In a dry season a compact layer will restrict root penetration confining roots to the soil above the layer. Roots are unable to reach soil moisture reserves which may be present below the compact layer. This can lead to wilting and reduction in crop yield.

One of the major causes of soil compaction in Ireland is the ploughing of soils in wet conditions. With the increase in tractor power, ploughing can be done at higher moisture contents than in the past. Wheel slip and traction problems are overcome with increased power. Tractor wheels running in the plough furrow cause compaction at ploughing depth. Also the plough itself smears wet soil at ploughing depth which disrupts the continuity of soil pores and restricts the infiltration of water.

Soil Crusting or Capping:

Crusting is formed by breakdown of the crumb structure of a seedbed by heavy rain and subsequent drying of the crust formed. As a result seedling emergence is restricted even though germination may have been good. The crops worst affected are small-seeded vegetable crops and sugar beet. The problem has become more prevalent in recent years as soil organic matter has declined through intensive cultivation.

The major mechanism in producing a crust is raindrop action. Raindrop impact directly on the soil breaks down soil aggregates. The wetting of aggregates even if not hit directly by raindrops often slakes or disperses them. The detached soil particles are reorganised by filling pores and layering flat clay and silt particles in more than one plane. Subsequent fast drying windy conditions provide the mechanism for shrinking the crust bringing the particles closer together. Drying also increases the strength of the crust making it more difficult for emerging seedlings to push through.

Crust on topsoils may only be as thin as a few tenths of a millimetre or range up to several centimetres thick. Crusting was much in evidence in March 1984. Very heavy rain followed sowing in late March and subsequent dry conditions conducive to crust formation occurred especially on low organic matter soils. The preparation of very fine seedbeds on soils of low organic matter content may increase the risk of crusting. On soils prone to crusting seedbeds should be left slightly cloddier or coarser than normal as a precaution.

(to be concluded in next issue)