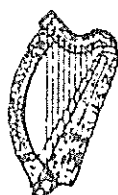


METEOROLOGICAL SERVICE



AGROMETEOROLOGICAL BULLETIN

OCTOBER 1983

The Weather of October

Outbreaks of rain and drizzle in a moderate southwesterly airflow on 1st/2nd preceded more extensive and heavy spells of rain on the 3rd. Overall the period up to the 11th was mild and cloudy with frequent spells of rain or drizzle interchanging with bright and showery weather and southwest winds, which became strong at times.

Vigorous depressions to the northwest of the country effected extensive, strong and blustery southwest winds accompanied by widespread rain or showers, particularly from 12th/13th to 15th/16th. The mild southwesterly airflow was succeeded by the onset of northwest winds on the 18th, following which a ridge of high pressure developed; southern areas were still effected on the 21st by a frontal trough near the south of the country.

Apart from a weak trough on the 23rd, high pressure dominated up to the 29th giving cooler but brighter conditions. Subsequently a mild southwest airflow was re-established and cloudy weather with a little rain, mainly confined to northwest regions, prevailed to the end of the month.

Monthly Amounts of Precipitation were above normal except in the east, southeast and south midlands where amounts were below normal. Values varied from 188% at Glenamoy, Co. Mayo, to 74% at Dublin Airport. Wettest spells occurred in the second decade whereas the last decade was driest. Wettest day generally occurred on the 15th. Rain was widespread and heavy on many days over the first three weeks and in addition some further heavy spells occurred at many stations on the 24th.

Mean Monthly Air Temperature was near or a little below normal. Values varied from 0.4°C above normal at Dublin Airport to 0.5°C below at Roche Point. Ground frost was widespread from the 20th and sharp air frost occurred on the 29th. The soil temperature (100mm) varied from 1.6°C-2.4°C above average during the first five days to 0.8°C-2.4°C below average from 21st to 25th, recovering somewhat again by the end of the month. In general degree day accumulations, 4.4°C and 10.0°C, were a little below normal except at stations mostly in the east, where they were a little above normal.

Mean Duration of Bright Sunshine was above normal in the east and below normal in the west. Values varied from 116% of normal at Dublin Airport (where global radiation was 109% of average) and 66% at Valentia Observatory (where global radiation was 86%) to 57% of normal at Belmullet.

Gales were widespread on the 12th, 15th and 16th, and winds were generally strong with gale gusts in the period from 1st to 18th, and on the 25th and 30th.

Summary First three weeks were generally dull, wet and windy; improved but frosty conditions were dominant in the last week to ten days.

TABLE 1

OCTOBER 1983

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND					
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10cm)				MEAN DAILY (HRS.)	% 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	22.9	-	8	7	16.0	10.6	13.3	-	7.0	7	0	89	-	35	-	1.3	10	0	-	-	2.79	-	5.3	-	-	-
	11-20	35.2	-	7	6	13.0	6.2	9.6	-	1.8	20	0	53	-	10	-	1.6	20	0	-	-	3.56	-	6.1	-	-	-
	21-END	1.1	-	2	0	11.3	1.9	6.6	-	-4.2	29	4	33	-	4	-	-9.5	29	9	-	-	3.69	-	2.6	-	-	-
	MONTH	59.2	77	17	13	13.4	6.1	9.7	-	-4.2	29	4	175	-	49	-	-9.5	29	9	-	-	3.36	-	4.7	-	19	-
Shannon Airport Co. Clare	1-10	60.8	-	9	6	16.2	11.8	14.0	-	8.6	7	0	96	-	41	-	5.9	7	0	13.5	-	1.99	-	6.6	4	-	-
	11-20	75.1	-	9	8	12.8	7.6	10.2	-	4.6	20	0	58	-	12	-	0.4	20	0	10.1	-	2.37	-	8.2	8	-	-
	21-END	10.1	-	4	2	12.2	5.2	8.7	-	-1.4	29	1	49	-	7	-	-3.4	29	3	8.5	-	3.25	-	3.6	1	-	-
	MONTH	146.0	170	22	16	13.7	8.1	10.9	+0.2	-1.4	29	1	204	96	59	92	-3.4	29	3	10.6	-0.8	2.56	89	6.0	13	28	-
Fermoy (Coolnakilla) Co. Cork	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
Fermoy (Moore Park) Co. Cork	1-10	48.0	-	7	7	16.1	11.0	13.5	-	6.4	7	0	91	-	38	-	-0.4	10	1	-	-	2.28	-	3.5	-	-	-
	11-20	61.5	-	9	9	13.3	6.5	9.9	-	3.0	20	0	55	-	11	-	-1.7	14	2	-	-	2.70	-	4.7	-	-	-
	21-END	4.6	-	3	1	12.6	2.6	7.6	-	-4.4	29	2	42	-	8	-	-10.5	29	8	-	-	3.00	-	1.3	-	-	-
	MONTH	114.1	128	19	17	13.9	6.5	10.2	-	-4.4	29	2	189	-	57	-	-10.5	29	11	-	-	2.67	-	3.2	-	17	-
Mallow Co. Cork	1-10	28.2	-	8	5	16.6	10.5	13.5	-	6.2	10	0	91	-	38	-	3.4	10	0	-	-	2.22	-	-	-	-	-
	11-20	53.6	-	8	5	13.5	6.6	10.1	-	3.0	20	0	57	-	11	-	-1.1	20	1	-	-	2.53	-	-	-	-	-
	21-END	3.4	-	2	1	12.6	2.4	7.5	-	-4.0	29	4	43	-	9	-	N/A	N/A	-	-	-	2.98	-	-	-	-	-
	MONTH	85.2	85	18	11	14.2	6.4	10.3	-	-4.0	29	4	192	-	57	-	N/A	N/A	-	-	-	2.59	-	-	-	-	-
Roches Point Co. Cork	1-10	41.8	-	6	4	15.4	11.4	13.4	-	8.2	10	0	90	-	35	-	6.6	8	0	13.9	-	2.49	-	7.8	8	-	-
	11-20	61.1	-	8	6	12.7	8.1	10.4	-	6.6	17	0	60	-	11	-	3.1	20	0	10.7	-	2.96	-	9.3	8	-	-
	21-END	2.6	-	2	1	11.9	6.2	9.0	-	1.9	29	0	52	-	6	-	-0.8	29	1	9.5	-	2.78	-	3.7	0	-	-
	MONTH	105.5	120	16	11	13.3	8.5	10.9	-0.5	1.9	29	0	202	92	52	83	-0.8	29	1	11.3	-0.4	2.75	86	6.9	16	27	-
Glencolumbkille Co. Donegal	1-10	111.8	-	10	10	N/A	10.7	N/A	-	6.5	10	0	N/A	-	N/A	-	5.5	10	0	-	-	0.99	-	5.5	-	-	-
	11-20	111.1	-	9	9	N/A	7.1	N/A	-	5.1	20	0	N/A	-	N/A	-	3.5	20	0	-	-	1.76	-	6.6	-	-	-
	21-END	41.3	-	8	7	11.5	6.0	8.8	-	2.2	21	0	49	-	5	-	-2.0	21	3	-	-	1.61	-	4.1	-	-	-
	MONTH	264.2	-	27	26	N/A	7.9	N/A	-	2.2	21	0	N/A	-	N/A	-	-2.0	21	3	-	-	1.46	-	5.4	-	N/A	-

121

TABLE 1 (CONTINUED)

OCTOBER 1983

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND				
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND				SOIL (10cm)			MEAN DAILY (HRS.)	% 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	116.0	-	10	10	15.0	10.3	12.6	-	4.6	7	0	82	-	30	-	1.6	7	0	-	-	1.88	-	-	-	-
	11-20	115.5	-	9	9	12.1	6.5	9.3	-	4.5	20	0	49	-	7	-	1.9	20	0	-	-	1.68	-	-	-	-
	21-END	32.4	-	8	6	11.5	4.8	8.1	-	-1.5	29	2	45	-	5	-	-3.2	21	5	-	-	1.75	-	-	-	-
	MONTH	263.9	170	27	25	12.8	7.1	10.0	-	-1.5	29	2	177	-	42	-	-3.2	21	5	-	-	1.77	-	-	-	-
Malin Head Co. Donegal	1-10	85.0	-	9	9	15.2	10.6	12.9	-	6.2	7	0	85	-	31	-	6.0	7	0	12.3	-	1.64	-	10.0	9	-
	11-20	83.8	-	10	9	12.2	7.3	9.8	-	5.6	16	0	54	-	8	-	3.7	20	0	9.3	-	2.24	-	13.0	9	-
	21-END	20.6	-	7	5	11.4	6.5	9.0	-	1.6	21	0	51	-	6	-	-1.6	21	2	8.2	-	1.75	-	9.8	10	-
	MONTH	189.4	168	26	23	12.9	8.1	10.5	+0.0	1.6	21	0	190	95	45	92	-1.6	21	2	9.9	-0.5	1.87	81	10.9	28	32
Casement Aerodrome Co. Dublin	1-10	20.6	-	8	4	16.2	10.9	13.6	-	6.7	7	0	92	-	38	-	4.9	7	0	13.1	-	2.83	-	9.0	9	-
	11-20	31.1	-	7	4	12.9	6.2	9.6	-	2.6	20	0	52	-	10	-	-1.2	20	1	9.6	-	3.55	-	10.7	8	-
	21-END	4.3	-	3	2	11.5	3.5	7.5	-	-3.6	29	2	40	-	5	-	-8.0	29	6	7.6	-	3.95	-	5.9	2	-
	MONTH	56.0	86	18	10	13.5	6.8	10.1	+0.1	-3.6	29	2	184	99	53	102	-8.0	29	7	10.0	-	3.46	107	8.5	19	35
Dublin Airport Co. Dublin	1-10	20.5	-	7	4	16.6	11.3	13.9	-	7.7	7	0	95	-	41	-	6.5	7	0	13.6	-	3.35	-	6.8	4	-
	11-20	20.7	-	6	3	13.4	6.9	10.1	-	3.2	20	0	58	-	13	-	1.5	20	0	9.7	-	3.66	-	8.3	6	-
	21-END	4.8	-	2	2	11.8	4.7	8.3	-	-0.6	29	1	45	-	6	-	-3.1	29	4	7.8	-	3.97	-	4.4	2	-
	MONTH	46.0	74	15	9	13.8	7.6	10.7	+0.4	-0.6	29	1	198	100	59	109	-3.1	29	4	10.3	-0.4	3.67	113	6.4	12	36
Kinsealy Co. Dublin	1-10	18.0	-	7	4	16.7	10.9	13.8	-	7.1	7	0	94	-	39	-	5.7	7	0	-	-	3.16	-	5.1	-	-
	11-20	22.7	-	6	4	13.8	6.7	10.3	-	3.0	20	0	59	-	13	-	-0.5	20	1	-	-	3.59	-	5.9	-	-
	21-END	3.6	-	3	2	12.6	3.4	8.0	-	-1.5	29	3	46	-	8	-	-4.4	29	4	-	-	3.81	-	3.7	-	-
	MONTH	44.3	75	16	10	14.3	6.9	10.6	-	-1.5	29	3	198	-	61	-	-4.4	29	5	-	-	3.53	-	4.9	-	27
Galway Co. Galway	1-10	101.7	-	10	8	15.4	11.3	13.4	-	7.6	7	0	90	-	35	-	1.5	7	0	13.7	-	2.24	-	6.9	6	-
	11-20	79.8	-	9	9	12.5	7.7	10.1	-	5.5	20	0	57	-	10	-	1.6	20	0	10.2	-	2.88	-	8.3	7	-
	21-END	16.4	-	5	4	11.6	5.6	8.6	-	-1.4	29	1	49	-	6	-	-4.5	29	3	9.2	-	2.27	-	4.4	3	-
	MONTH	197.9	172	24	21	13.1	8.1	10.6	-0.1	-1.4	29	1	196	-	51	-	-4.5	29	3	11.0	-	2.46	88	6.4	16	24
Killarney (Muckross House) Co. Kerry	1-10	51.8	-	8	8	15.7	12.3	14.0	-	8.7	7	0	96	-	40	-	6.6	7	0	-	-	1.97	-	-	-	-
	11-20	95.7	-	10	10	13.4	7.3	10.4	-	3.3	16	0	60	-	13	-	2.6	20	0	-	-	1.11	-	-	-	-
	21-END	5.7	-	2	2	12.4	5.1	8.8	-	-1.8	29	2	52	-	9	-	-3.5	29	3	-	-	3.15	-	-	-	-
	MONTH	153.2	-	20	20	13.8	8.1	11.0	-	-1.8	29	2	208	-	63	-	-3.5	29	3	-	-	2.11	-	-	-	-

1
3
1

TABLE 1 (CONTINUED)

OCTOBER 1983

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND		P.E. (PENMAN) (mm)		
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10cm)		MEAN DAILY (HRS.)	% 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
Cahirciveen (Valentia Obsy.) Co. Kerry	1-10	58.1	-	9	7	15.5	12.1	13.8	-	9.4	7	0	94	-	38	-	6.3	7	0	14.1	-	1.99	-	7.3	6	-
	11-20	77.9	-	10	8	13.3	7.9	10.6	-	5.0	15	0	62	-	13	-	4.1	20	0	10.9	-	1.40	-	9.1	9	-
	21-END	10.7	-	4	2	12.6	6.6	9.6	-	-1.3	29	1	59	-	11	-	-4.9	29	4	9.8	-	2.15	-	4.4	0	-
	MONTH	146.7	103	23	17	13.8	8.8	11.3	-0.3	-1.3	29	1	215	96	62	90	-4.9	29	4	11.5	-0.3	1.86	66	6.8	15	25
Ardfert (Liscahane) Co. Kerry	1-10	47.8	-	8	7	16.1	11.8	13.9	-	7.9	7	0	95	-	40	-	3.0	7	0	-	-	2.20	-	-	-	-
	11-20	75.0	-	10	10	13.4	7.7	10.5	-	4.4	20	0	61	-	13	-	0.8	20	0	-	-	2.27	-	-	-	-
	21-END	13.0	-	4	2	12.5	4.8	8.7	-	-1.5	29	1	50	-	9	-	-6.8	29	7	-	-	3.74	-	-	-	-
	MONTH	135.8	-	22	19	13.9	8.0	11.0	-	-1.5	29	1	206	-	62	-	-6.8	29	7	-	-	2.77	-	-	-	-
Lullymore Co. Kildare	1-10	48.2	-	7	7	15.9	10.4	13.1	-	6.0	7	0	87	-	34	-	5.0	7	0	-	-	2.26	-	5.6	-	-
	11-20	46.2	-	5	5	12.7	5.4	9.1	-	0.3	20	0	48	-	9	-	-5.5	20	1	-	-	3.37	-	6.7	-	-
	21-END	6.4	-	3	3	11.3	1.7	6.5	-	-4.1	29	5	34	-	4	-	-10.6	29	8	-	-	3.24	-	2.8	-	-
	MONTH	100.8	129	15	15	13.3	5.7	9.5	-	-4.1	29	5	169	-	47	-	-10.6	29	9	-	-	2.96	-	5.1	-	17
Kilkenny Co. Kilkenny	1-10	22.7	-	8	7	16.3	10.6	13.4	-	6.3	10	0	90	-	36	-	-0.3	10	1	13.6	-	2.85	-	4.8	1	-
	11-20	40.3	-	8	6	13.3	6.1	9.7	-	0.0	20	0	54	-	12	-	-4.2	20	1	10.1	-	3.16	-	5.8	5	-
	21-END	5.0	-	4	1	11.9	1.7	6.8	-	-4.0	29	2	35	-	6	-	-9.2	29	8	7.4	-	3.63	-	1.8	0	-
	MONTH	68.0	81	20	14	13.8	6.0	9.9	-0.0	-4.0	29	2	180	97	54	102	-9.2	29	10	10.2	-0.4	3.23	109	4.0	6	20
Mooncoin (Silverspring) Co. Kilkenny	1-10	37.8	-	8	6	16.1	11.1	13.6	-	7.9	8	0	92	-	38	-	3.2	10	0	-	-	2.41	-	-	-	-
	11-20	38.9	-	9	6	13.5	6.3	9.9	-	1.1	20	0	56	-	12	-	-3.5	20	3	-	-	3.26	-	-	-	-
	21-END	0.5	-	1	0	12.4	2.0	7.2	-	-2.2	29	2	38	-	7	-	-6.8	29	8	-	-	3.56	-	-	-	-
	MONTH	77.2	87	18	12	13.9	6.4	10.2	-	-2.2	29	2	187	-	57	-	-6.8	29	11	-	-	3.09	-	-	-	-
Ballinamore Co. Leitrim	1-10	76.7	-	10	10	15.5	10.1	12.8	-	4.7	7	0	84	-	31	-	-1.0	7	1	-	-	2.37	-	3.5	-	-
	11-20	68.0	-	8	8	13.0	5.9	9.4	-	2.9	20	0	51	-	10	-	-2.2	20	1	-	-	2.49	-	4.9	-	-
	21-END	13.8	-	5	4	11.2	3.1	7.2	-	-2.2	24	2	37	-	4	-	-9.2	29	5	-	-	2.07	-	2.7	-	-
	MONTH	158.5	150	23	22	13.2	6.3	9.7	-	-2.2	24	2	172	-	45	-	-9.2	29	7	-	-	2.30	-	3.7	-	14
Ardee (Boharnamoe) Co. Louth	1-10	36.7	-	8	6	N/A	9.7	N/A	-	5.3	7	0	N/A	-	N/A	-	5.0	7	0	-	-	-	-	-	-	-
	11-20	20.6	-	6	4	13.1	5.9	9.5	-	2.2	20	0	51	-	10	-	0.5	20	0	-	-	-	-	-	-	-
	21-END	6.6	-	4	2	12.0	2.4	7.2	-	-4.7	29	3	40	-	6	-	-5.6	29	6	-	-	-	-	-	-	-
	MONTH	63.9	-	18	12	N/A	5.9	N/A	-	-4.7	29	3	N/A	-	N/A	-	-5.6	29	6	-	-	-	-	-	-	-

- 4 -

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

OCTOBER 1983

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND		P.E. (PENMAN) (mm)		
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10cm)		MEAN DAILY (HRS.)	% 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	89.6	-	9	8	15.4	11.1	13.3	-	7.0	7	0	89	-	34	-	-0.1	7	1	-	-	1.91	-	4.4	-	-
	11-20	113.9	-	10	9	13.1	7.1	10.1	-	2.7	20	0	57	-	12	-	-3.5	20	1	-	-	2.13	-	5.8	-	-
	21-END	16.2	-	6	6	12.3	4.8	8.6	-	-2.6	29	2	50	-	8	-	-10.4	29	6	-	-	2.47	-	3.1	-	-
	MONTH	219.7	169	25	23	13.6	7.6	10.6	-	-2.6	29	2	196	-	54	-	-10.4	29	8	-	-	2.18	-	4.4	-	15
Belmullet Co. Mayo	1-10	53.0	-	9	7	14.8	10.9	12.8	-	7.9	10	0	84	-	29	-	6.0	10	0	13.4	-	1.48	-	9.8	10	-
	11-20	81.6	-	8	8	12.4	7.2	9.8	-	5.4	15	0	54	-	7	-	3.5	20	0	10.6	-	1.93	-	10.8	9	-
	21-END	21.0	-	7	5	12.0	6.0	9.0	-	0.0	28	0	53	-	8	-	-5.4	29	2	10.1	-	1.50	-	7.7	6	-
	MONTH	155.6	138	24	20	13.0	7.9	10.5	-0.3	0.0	28	0	192	94	45	85	-5.4	29	2	11.3	+0.1	1.63	57	9.4	25	26
Claremorris Co. Mayo	1-10	96.3	-	9	8	15.2	10.1	12.7	-	5.4	7	0	83	-	29	-	0.1	10	0	13.0	-	1.19	-	6.7	4	-
	11-20	78.0	-	9	9	12.4	6.2	9.3	-	2.7	20	0	49	-	9	-	-2.5	20	1	9.7	-	2.07	-	7.9	7	-
	21-END	14.3	-	3	3	11.8	4.2	8.0	-	-2.5	29	1	44	-	6	-	-6.6	29	4	8.6	-	2.20	-	5.1	1	-
	MONTH	188.6	158	21	20	13.1	6.8	9.9	+0.2	-2.5	29	1	176	100	44	100	-6.6	29	5	10.4	+0.1	1.83	72	6.5	12	18
Glenamoy Co. Mayo	1-10	93.7	-	10	9	14.9	10.8	12.9	-	5.4	7	0	85	-	31	-	3.4	7	0	-	-	1.46	-	6.4	-	-
	11-20	127.4	-	9	8	12.5	6.7	9.6	-	4.8	16	0	52	-	8	-	2.8	20	0	-	-	2.25	-	7.2	-	-
	21-END	34.7	-	8	5	12.0	5.7	8.8	-	-1.0	29	1	51	-	7	-	-4.1	29	2	-	-	1.69	-	4.7	-	-
	MONTH	255.8	188	27	22	13.1	7.7	10.4	-	-1.0	29	1	187	-	47	-	-4.1	29	2	-	-	1.80	-	6.1	-	16
Dunsany (Grange) Co. Meath	1-10	77.6	-	7	5	15.6	10.5	13.0	-	5.9	7	0	86	-	33	-	2.9	7	0	-	-	2.37	-	-	-	-
	11-20	32.3	-	7	4	12.5	5.6	9.1	-	1.3	20	0	47	-	8	-	-4.4	20	1	-	-	3.12	-	-	-	-
	21-END	8.2	-	4	2	11.2	2.2	6.7	-	-4.0	29	2	35	-	4	-	-8.5	29	6	-	-	2.90	-	-	-	-
	MONTH	118.1	151	18	11	13.0	6.0	9.5	-	-4.0	29	2	168	-	45	-	-8.5	29	7	-	-	2.80	-	-	-	-
Clones Co. Monaghan	1-10	42.8	-	10	8	15.6	10.0	12.8	-	4.6	7	0	84	-	31	-	0.1	7	0	13.1	-	2.44	-	5.0	2	-
	11-20	47.5	-	9	8	12.4	6.0	9.2	-	4.1	20	0	48	-	8	-	-0.7	20	1	10.1	-	2.37	-	6.4	7	-
	21-END	10.6	-	6	2	11.0	3.7	7.3	-	-2.4	29	2	38	-	4	-	-8.0	29	4	8.2	-	2.53	-	3.1	1	-
	MONTH	100.9	111	25	18	12.9	6.5	9.7	+0.3	-2.4	29	2	170	97	43	100	-8.0	29	5	10.4	+0.3	2.45	100	4.8	10	18
Birr Co. Offaly	1-10	51.8	-	9	8	15.9	10.5	13.2	-	6.3	7	0	88	-	33	-	4.5	7	0	13.4	-	2.25	-	5.4	5	-
	11-20	36.7	-	9	8	13.0	6.4	9.7	-	2.8	20	0	53	-	11	-	-1.3	20	1	9.9	-	3.36	-	6.6	6	-
	21-END	10.9	-	4	2	11.7	3.2	7.5	-	-3.4	29	2	40	-	5	-	-7.7	29	7	7.8	-	2.99	-	3.2	0	-
	MONTH	99.4	121	22	18	13.4	6.6	10.0	+0.1	-3.4	29	2	181	96	49	94	-7.7	29	8	10.3	-0.3	2.87	97	5.0	11	21

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 1 (CONTINUED)

OCTOBER 1983

STATION	PERIOD	RAINFALL (mm)				TEMPERATURE (°C)														BRIGHT SUNSHINE		WIND					
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR								GROUND			SOIL (10cm)			MEAN DAILY (HRS.)	% 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	47.0	-	9	6	15.8	10.5	13.2	-	6.9	7	0	88	-	34	-	4.0	2	0	-	-	-	-	-	-	-	-
	11-20	73.6	-	10	9	12.9	6.0	9.5	-	1.1	20	0	51	-	10	-	-2.1	20	1	-	-	-	-	-	-	-	-
	21-END	4.2	-	5	1	11.9	1.6	6.8	-	-4.4	29	3	36	-	6	-	-8.1	29	8	-	-	-	-	-	-	-	-
	MONTH	124.8	-	24	16	13.5	5.9	9.7	-	-4.4	29	3	175	-	49	-	-8.1	29	9	-	-	-	-	-	-	-	-
Dungarvan (Carriglea) Co. Waterford	1-10	47.0	-	9	5	16.6	10.9	13.7	-	6.9	10	0	93	-	40	-	3.8	7	0	-	-	3.06	-	3.3	-	-	-
	11-20	66.0	-	10	7	13.5	6.8	10.1	-	2.9	20	0	58	-	12	-	2.9	20	0	-	-	3.09	-	2.9	-	-	-
	21-END	0.8	-	2	0	12.7	2.8	7.7	-	-2.1	29	1	42	-	8	-	-1.8	29	2	-	-	2.92	-	N/A	-	-	-
	MONTH	113.8	115	21	12	14.2	6.7	10.4	-	-2.1	29	1	193	-	59	-	-1.8	29	2	-	-	3.02	-	N/A	-	N/A	-
Mullingar Co. Westmeath	1-10	61.3	-	7	7	15.5	10.1	12.8	-	6.2	7	0	84	-	30	-	5.0	7	0	13.0	-	2.63	-	6.2	2	-	-
	11-20	49.2	-	8	6	12.5	5.7	9.1	-	1.4	20	0	48	-	9	-	-1.2	20	1	9.4	-	3.33	-	7.0	6	-	-
	21-END	10.3	-	4	2	11.0	2.7	6.9	-	-4.2	29	3	35	-	3	-	-7.2	29	7	7.5	-	2.85	-	3.9	0	-	-
	MONTH	120.8	131	19	15	12.9	6.1	9.5	+0.0	-4.2	29	3	167	95	42	93	-7.2	29	8	9.9	-0.4	2.93	105	5.7	8	20	-
J.F.K. Park Co. Wexford	1-10	50.1	-	6	6	15.5	10.8	13.2	-	7.3	10	0	88	-	34	-	-0.2	10	1	-	-	2.14	-	6.9	-	-	-
	11-20	40.2	-	7	7	13.2	6.7	10.0	-	2.9	20	0	56	-	11	-	-3.8	20	3	-	-	2.98	-	8.7	-	-	-
	21-END	1.2	-	2	1	11.8	4.4	8.1	-	1.0	28	0	43	-	5	-	-7.8	29	6	-	-	3.78	-	3.0	-	-	-
	MONTH	91.5	97	15	14	13.4	7.2	10.3	-	1.0	28	0	187	-	50	-	-7.8	29	10	-	-	2.99	-	6.2	-	23	-
Clonroche Co. Wexford	1-10	53.8	-	8	6	15.4	10.6	13.0	-	7.6	10	0	86	-	32	-	-0.3	10	1	-	-	2.42	-	3.1	-	-	-
	11-20	48.9	-	8	7	12.5	6.0	9.3	-	1.6	20	0	49	-	8	-	-5.0	20	4	-	-	3.28	-	3.6	-	-	-
	21-END	1.3	-	3	0	11.9	3.3	7.6	-	-1.8	29	1	40	-	6	-	-8.4	29	9	-	-	3.75	-	1.4	-	-	-
	MONTH	104.0	98	19	13	13.2	6.5	9.9	-	-1.8	29	1	175	-	46	-	-8.4	29	14	-	-	3.17	-	2.7	-	N/A	-
Johnstown Castle Co. Wexford	1-10	51.4	-	8	6	15.4	11.3	13.4	-	8.0	10	0	90	-	35	-	4.8	6	0	-	-	3.02	-	5.5	-	-	-
	11-20	45.0	-	9	7	13.0	7.2	10.1	-	3.5	20	0	57	-	11	-	0.3	20	0	-	-	3.52	-	6.4	-	-	-
	21-END	0.8	-	2	0	11.7	5.1	8.4	-	1.3	28	0	46	-	5	-	-4.1	28	5	-	-	4.16	-	3.1	-	-	-
	MONTH	97.2	106	19	13	13.3	7.8	10.6	-	1.3	28	0	193	-	50	-	-4.1	28	5	-	-	3.52	-	5.0	-	20	-
Rosslare Co. Wexford	1-10	36.4	-	9	6	15.8	12.1	14.0	-	9.0	10	0	96	-	40	-	5.3	10	0	14.0	-	3.10	-	7.1	7	-	-
	11-20	32.4	-	7	6	13.3	8.4	10.8	-	5.7	20	0	64	-	14	-	2.2	20	0	10.5	-	3.24	-	8.2	6	-	-
	21-END	0.7	-	2	0	11.9	6.7	9.3	-	2.8	28	0	55	-	7	-	-0.9	29	2	9.1	-	4.02	-	4.9	3	-	-
	MONTH	69.5	86	18	12	13.6	9.0	11.3	-0.0	2.8	28	0	214	96	61	94	-0.9	29	2	11.1	-0.7	3.47	91	6.7	16	35	-

NOTES ON THE TABLES IN JANUARY ISSUE

TABLE 2 GLOBAL SOLAR RADIATION

STATION	PERIOD	AMOUNT
		Joule/cm ²
Malin Head Co. Donegal	1-10	4962
	11-20	4954
	21-end	4040
	Month	13956
Dublin Airport Co. Dublin	1-10	6900
	11-20	6192
	21-end	5794
	Month	18886
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	5483
	11-20	5050
	21-end	4605
	Month	15138
Kilkenny Co. Kilkenny	1-10	5047
	11-20	7392
	21-end	5595
	Month	18034
Belmullet Co. Mayo	1-10	4817
	11-20	4966
	21-end	4057
	Month	13840
Clones Co. Monaghan	1-10	5485
	11-20	5336
	21-end	4429
	Month	15250
Birr Co. Offaly	1-10	5842
	11-20	5949
	21-end	5276
	Month	17067

Notes on the tables in January issue

Table 4: Notes

*Mean of readings at 0300, 0900, 1500, 2100GMT at 100mm depth.

**°C/100mm to 200mm depth; positive, temperature increasing with depth.

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	6.3	-	0	17
	11-20	4.0	-	0	31
	21-end	2.8	2	2	-
	Month	13.1	-	-	-
Kinsealy Co. Dublin	1-10	9.2	-	10	9
	11-20	16.4	-	4	6
	21-end	4.2	1	5	-
	Month	29.8	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	12.2	-	0	56
	11-20	19.1	-	0	53
	21-end	1.5	-	0	5
	Month	32.8	-	-	-
Ballinamore Co. Leitrim	1-10	N/A	N/A	N/A	N/A
	11-20	N/A	N/A	N/A	N/A
	21-end	N/A	N/A	N/A	N/A
	Month	N/A	N/A	N/A	N/A
Glenamoy Co. Mayo	1-10	7.1	-	0	87
	11-20	5.8	-	0	122
	21-end	7.1	-	0	20
	Month	20.0	-	-	-
Johnstown Castle Co. Wexford	1-10	12.9	-	0	50
	11-20	20.7	-	0	24
	21-end	6.3	6	6	-
	Month	39.9	-	-	-

TABLE 4 SOIL CLIMATE (MULLINGAR)

Bare Soil Type	Period	MEANS*			Temperature Gradient**	Soil Water Potential (hPa) (at depths)	
		Max.	Daily	Min.		75mm	150mm
Peat	1-10	14.2	13.1	12.1	0.7	63	65
	11-20	11.0	9.9	9.3	1.3	62	60
	21-end	8.1	7.4	6.3	1.3	76	70
Mineral (Sandy clay loam)	1-10	14.7	12.9	11.6	0.6	115	63
	11-20	11.5	9.6	8.0	1.0	102	51
	21-end	8.9	7.6	6.5	0.7	125	79

special topic

REDWATER AND WEATHER

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(continued from September)

Recently some attention has been refocussed on the role of rainfall in relation to redwater. It has already been established that rainfall is negatively correlated with redwater incidence (Donnelly & MacKellar, 1970, Gray, 1980) but this was thought to be mainly a temperature effect. Subsequently some data (Gray, unpublished) have suggested that the transmission rate may increase following dry spells and that this is not due entirely to temperature. The mechanism for this is not yet apparent though there are several possibilities currently under investigation.

It should be noted that many farmers hold the view that a "change in the weather", usually wet following dry, results in increased incidence of redwater. This could be explained in terms of dry weather preceding wet but the influence of weather conditions on host susceptibility should not be discounted and deserves further study. It is well known that stress can precipitate clinical attacks of redwater in carrier animals.

There is no doubt that weather affects the epidemiology of redwater but the prospects for a useful forecasting system are not good in the absence of more detailed information. The possibility of developing a tick forecasting system is more hopeful but this does not have a direct relevance to redwater incidence as clinical cases occur most frequently in areas of low to medium tick infestation.

The short time lag between tick activity and occurrence of the disease (2 weeks) means that demonstrations of weather effects on tick activity are of limited value as far as redwater forecasting is concerned. However, it is possible that influence of weather on vegetation and thus on the grazing movements of susceptible cattle may prove more hopeful in this respect.

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