

METEOROLOGICAL SERVICE

METEOROLOGICAL OFFICE,
ROSSLARE,
CO. WEXFORD.



AGMETBL(02)460

AGROMETEOROLOGICAL BULLETIN

JANUARY 1978

The Weather in January

The first week was mild and dull with southwesterly winds for much of the time. For the remainder of the month westerly or northwesterly winds were predominant and there were only brief excursions into mild southerlies. The weather was mostly bright and cold with wintry-type showers and frequent ground frosts. Some of the showers were of snow and hail especially in Ulster and Connaught. Dull but milder conditions with rain, preceded by sleet or snow in some areas, prevailed on 21st, 23rd, 27th and 31st.

Mean Monthly Rainfall Amounts ranged from well above normal in the extreme northwest to well below normal in the southeast; in most areas amounts were close to normal. The weather was mainly dry between 5th and 7th, from 12th to 14th and again on 29th and 30th. Wettest days were 10th, 21st and 27th.

Mean Monthly Air Temperatures ranged from 0.1°C below normal at Shannon Airport to 1.3°C below normal at Valentia Observatory but were mostly about 0.6°C below normal. Inland, maximum air temperatures were about 1°C below normal while minima were about 0.5°C below normal. Ground frost was widespread and sharp or severe on 12th, 17th, 18th, 30th and 31st. Soil temperatures at 10 cm were above normal only during the first week and at the end of the month were 1.5°C to 2.5°C below their normal values. Mean monthly values of the soil temperatures were from 0.2°C to 0.8°C below normal generally but were a little above normal in a few parts of the west and north.

Mean Daily Duration of Bright Sunshine was above normal except near west-facing coasts. Values ranged from 144% of normal at Roche's Point to 79% of normal at Belmullet, most places having between 110% and 135% of normal sunshine.

Strongest Winds occurred in a westerly gale on 3rd and in a northerly gale on 28th and early on 29th when winds gusted from 26 to 36 ms^{-1} (50 to 70 kts) and a few gusts to 40 ms^{-1} (77 kts) were recorded.

Summary. January was a cold, bright month. Rainfall amounts varied from 160% of normal in the extreme northwest to less than 60% of normal in the extreme southeast.

The data contained in this Bulletin are provisional. Some of the material in Table 1 will be published in its final form later in the Monthly Weather Report; final values of Solar Radiation at stations; marked "e" in Table 2 will be published in the Annual Summary of Solar Radiation.

TABLE 1

January, 1978

STATION	PERIOD	RAINFALL (MM.)				TEMPERATURE °C													BRIGHT SUNSHINE		WIND		
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR					GROUND			SOIL(10 CM)					MEAN DAILY (HRS.)	% OF AVERAGE	MEAN SPEED (ms ⁻¹)	DAYS WITH GALE GUSTS	
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST ABOVE 4.0°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE					
Carlow (Oak Park) Co. Carlow	1-10	14.6	/	6	5	8.3	2.6	5.4	/	-3.0	08	2	16	0	-7.5	08	6	/	/	2.00	/	4	/
	11-20	15.0	/	3	2	4.6	-0.8	1.9	/	-3.6	19	5	0	0	-9.2	18	7	/	/	2.52	/	3	/
	21-end	40.0	/	9	8	6.9	-0.1	3.4	/	-5.6	20	3	2	0	-8.0	30	10	/	/	2.99	/	5	/
	Month	69.7	/	18	15	6.6	0.5	3.6	/	-5.6	30	10	18	0	-9.2	18	23	/	/	2.52	/	4	/
Shannon Airport Co. Clare	1-10	42.5	-	7	5	9.2	4.3	6.8	-	1.3	08	0	24	0	-4.0	08	3	6.7	-	1.52	-	6	4
	11-20	14.0	-	8	3	6.4	0.9	3.7	-	-1.7	18	4	3	0	-8.6	18	9	3.9	-	2.66	-	4	2
	21-end	38.2	-	10	8	7.5	4.9	1.7	-	-2.9	30	1	9	0	-9.4	30	8	4.3	-	1.92	-	7	5
	Month	94.7	101	25	16	7.7	2.4	5.0	-0.1	-2.9	30	5	36	0	-9.4	30	20	4.9	+0.2	2.03	119	6	11
Fermoy (Moore Park) Co. Cork	1-10	15.4	/	8	4	9.0	3.3	6.1	/	-3.6	08	2	22	0	-7.7	08	5	/	/	1.89	/	4	/
	11-20	17.7	/	7	4	5.9	-0.5	2.7	/	-4.0	18	5	1	0	-8.9	17	8	/	/	2.46	/	3	/
	21-end	72.3	/	9	9	8.8	-0.2	4.3	/	-4.6	30	4	6	0	-10.0	30	9	/	/	2.06	/	4	/
	Month	105.4	/	24	17	7.9	0.8	4.4	/	-4.6	30	11	29	0	-10.0	30	22	/	/	2.14	/	4	/
Mallow Co. Cork	1-10	24.3	-	6	5	9.1	3.4	6.3	/	-3.2	08	1	22	0	-6.6	03	5	/	/	1.73	/	/	/
	11-20	20.0	-	5	4	5.8	0.0	2.9	/	-3.0	18	4	1	0	-9.3	20	8	/	/	2.55	/	/	/
	21-end	65.7	-	9	9	8.2	-0.7	3.8	/	-4.5	30	4	2	0	-8.3	30	10	/	/	2.53	/	/	/
	Month	110.0	-	20	18	7.7	0.9	4.3	/	-4.5	30	9	25	0	-9.3	20	23	/	/	2.28	/	/	/
Roche's Point Co. Cork	1-10	9.5	-	5	3	9.3	5.2	7.2	-	1.6	08	0	29	0	-1.0	08	1	6.8	-	2.11	-	7	3
	11-20	16.7	-	4	2	6.3	1.5	3.9	-	-0.3	18	1	2	0	-4.4	18	6	3.7	-	3.09	-	6	4
	21-end	43.9	-	9	9	7.9	3.1	5.5	-	-0.2	30	1	16	0	-4.1	30	5	4.8	-	3.37	-	9	8
	Month	70.1	72	18	14	7.8	3.2	5.5	-1.0	-0.3	18	2	47	0	-4.4	18	12	5.1	-0.8	2.87	144	7	15
Glencolumbkille Co. Donegal	1-10	60.0	/	9	8	8.3	4.2	6.3	/	0.0	10	0	20	0	-3.6	10	6	/	/	0.52	/	5	/
	11-20	44.4	/	10	7	6.8	2.3	4.5	/	0.1	17	0	7	0	-5.3	17	9	/	/	1.12	/	4	/
	21-end	140.3	/	11	10	6.7	1.9	4.3	/	0.4	28	0	6	0	-5.5	25	11	/	/	0.84	/	6	/
	Month	244.7	/	30	25	7.2	2.8	5.0	/	0.0	10	0	33	0	-5.5	25	26	/	/	0.83	/	5	/
Glenties Co. Donegal	1-10	48.8	-	7	7	7.9	2.9	5.4	/	0.2	03	0	15	0	-2.8	08	6	/	/	0.83	/	/	/
	11-20	48.9	-	8	7	6.2	0.5	3.4	/	-3.2	17	4	3	0	-9.0	17	7	/	/	0.87	/	/	/
	21-end	115.3	-	10	9	6.5	0.0	3.3	/	-4.0	30	5	2	0	-10.0	30	9	/	/	1.23	/	/	/
	Month	213.0	140	25	23	6.8	1.1	4.0	/	-4.0	30	9	20	0	-10.0	30	22	/	/	2.77	/	/	/

Notes on the tables in January issue

TABLE 1 (Continued)

January, 1978.

STATION	PERIOD	RAINFALL (MM.)				TEMPERATURE °C														BRIGHT SUNSHINE		WIND	
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10 CM)				MEAN DAILY (HRS.)	% OF AVERAGE	MEAN SPEED (ms ⁻¹)	DAYS WITH GALE GUSTS
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.0°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE				
Malin Head Co. Donegal	1-10	51.4	-	8	8	7.9	3.5	5.7	-	0.3	10	0	16	0	-1.1	04	1	5.0	-	1.31	-	5	8
	11-20	20.6	-	8	6	6.8	2.2	4.5	-	-0.3	17	1	9	0	-2.0	17	3	3.6	-	1.24	-	8	5
	21-end	91.1	-	10	10	6.8	1.8	4.3	-	0.6	27	0	4	0	-1.2	27	5	3.4	-	1.16	-	11	10
	Month	163.1	158	26	24	7.2	2.5	4.8	-0.4	-0.3	17	1	29	0	-2.0	17	9	4.0	-0.5	1.24	93	8	23
Dublin Airport Co. Dublin	1-10	27.3	-	7	5	8.2	3.6	5.9	-	0.9	10	0	17	0	-4.3	08	4	5.4	-	2.64	-	7	3
	11-20	11.2	-	5	3	4.7	0.5	2.6	-	-2.4	17	5	2	0	-5.6	12	6	3.1	-	1.74	-	5	1
	21-end	22.7	-	9	6	6.7	0.8	3.8	-	-2.6	30	3	4	0	-7.8	31	9	3.3	-	2.70	-	6	3
	Month	61.2	87	21	14	6.6	1.6	4.1	-0.6	-2.6	30	8	23	0	-7.8	31	19	3.9	-0.2	2.37	116	6	7
Kinsealy Co. Dublin	1-10	26.7	/	6	5	8.1	2.9	5.5	/	-0.5	08	1	15	0	-6.1	08	6	/	/	2.38	/	5	/
	11-20	10.3	/	4	2	5.0	-0.1	2.5	/	-2.7	17	5	0	0	-5.4	13	6	/	/	1.78	/	4	/
	21-end	24.1	/	8	6	7.3	0.1	3.7	/	-3.3	30	3	3	0	-7.4	31	8	/	/	2.70	/	6	/
	Month	61.1	/	18	13	6.8	0.9	3.9	/	-3.3	30	9	18	0	-7.4	31	20	/	/	2.30	/	5	/
Lucan (U.C.D. Field Stn.) Co. Dublin	1-10	32.0	/	7	6	7.7	3.4	5.6	/	0.0	08	0	15	0	-5.4	08	4	/	/	2.45	/	4	/
	11-20	9.3	/	4	2	4.7	-0.3	2.2	/	-3.4	17	5	0	0	-6.4	13	8	/	/	1.92	/	3	/
	21-end	21.8	/	6	5	7.4	-0.6	3.4	/	-4.1	30	7	3	0	-8.1	30	11	/	/	1.70	/	5	/
	Month	63.1	/	17	13	6.6	0.8	3.7	/	-4.1	30	12	18	0	-8.1	30	23	/	/	2.01	/	4	/
Galway (Univ. Coll.) Co. Galway	1-10	37.1	/	8	6	9.3	4.5	6.9	/	0.2	03	0	26	0	-2.3	02	6	/	/	1.62	/	/	/
	11-20	14.3	/	7	3	6.7	1.5	4.1	/	-2.0	17	2	6	0	-10.5	17	8	/	/	2.66	/	NA	/
	21-end	46.5	/	9	8	7.4	1.0	4.2	/	-1.3	30	2	3	0	-11.0	30	11	/	/	2.05	/	/	/
	Month	97.9	/	24	17	7.8	2.3	5.0	/	-2.0	17	4	35	0	-11.0	30	25	/	/	2.11	/	/	/
Killarney (Muokross Hse) Co. Kerry	1-10	40.4	/	9	5	9.4	4.5	7.0	/	-0.6	08	1	26	0	-4.3	08	5	/	/	1.47	/	/	/
	11-20	39.5	/	9	8	6.5	0.6	3.5	/	-2.5	18	4	2	0	-8.7	18	9	/	/	1.34	/	/	/
	21-end	94.5	/	11	8	8.6	1.2	4.9	/	-1.7	30	2	9	0	-7.0	30	9	/	/	1.83	/	/	/
	Month	174.4	/	29	21	8.2	2.0	5.1	/	-2.5	18	7	37	0	-8.7	18	23	/	/	1.55	/	/	/
Cahiriveen (Valentia Obsy.) Co. Kerry	1-10	34.4	-	9	5	9.6	5.0	7.3	-	2.1	08	0	29	0	-1.4	08	2	7.1	-	1.35	-	7	4
	11-20	35.9	-	8	5	7.4	1.6	4.5	-	-0.6	13	1	3	0	-2.9	13	4	4.5	-	2.13	-	5	5
	21-end	98.8	-	11	11	8.1	2.7	5.4	-	-1.0	30	1	14	0	-4.0	22	4	5.2	-	1.01	-	7	7
	Month	169.1	105	28	21	8.3	3.1	5.7	-1.3	-1.0	30	2	46	0	-4.0	22	10	5.6	-0.3	1.48	94	6	16

Notes on the tables in January issue

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TABLE 1 (Continued)

January, 1978.

STATION	PERIOD	RAINFALL (MM.)				TEMPERATURE °C												BRIGHT SUNSHINE		WIND					
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR						GROUND		SOIL (10 CM)		MEAN DAILY (HRS.)	% OF AVERAGE	MEAN SPEED (MS ⁻¹)	DAYS WITH GALE GUSTS						
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."					DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE		
Tralee (Caherweesheen) Co. Kerry	1-10	42.4	/	7	6	10.1	3.9	7.0	/	-0.4	03	2	27	0	-9.4	02	5	/	/	/	/	/	/	/	
	11-20	41.3	/	7	6	6.7	0.1	3.4	/	-2.8	18	4	1	0	-7.6	18	9	/	/	/	/	/	/	/	
	21-end	NA	/	NA	NA	NA	NA	NA	/	NA	NA	NA	NA	NA	NA	NA	NA	/	/	/	/	/	/	/	
	Month	-	/	-	-	-	-	-	/	-	-	-	-	-	-	-	-	/	/	/	/	/	/	/	/
Lullymore Co. Kildare	1-10	31.7	/	9	6	7.6	2.3	4.9	/	-1.7	08	2	11	0	-10.1	08	6	/	/	/	/	/	/	/	/
	11-20	13.7	/	5	3	4.5	-0.9	1.8	/	-3.7	18	6	0	0	-11.4	18	9	/	/	/	/	/	/	/	/
	21-end	42.5	/	9	7	6.5	-0.7	2.9	/	-4.2	30	6	1	0	-10.8	30	11	/	/	/	/	/	/	/	/
	Month	87.9	/	23	16	6.2	0.2	3.2	/	-4.2	30	14	12	0	-11.4	18	26	/	/	/	/	/	/	/	/
Kilkenny Co. Kilkenny	1-10	17.0	-	7	5	8.6	2.2	5.4	-	-3.4	08	1	14	0	-6.2	08	4	5.3	-	2.05	-	3	2	/	/
	11-20	12.2	-	5	1	5.2	-0.7	2.3	-	-5.6	17	5	2	0	-11.2	17	7	2.3	-	2.69	-	3	0	/	/
	21-end	42.2	-	9	9	7.1	0.3	3.7	-	-3.1	25	3	3	0	-8.0	25	10	3.0	-	2.60	-	4	4	/	/
	Month	71.4	81	21	15	7.0	0.6	3.8	-0.6	-5.6	17	9	19	0	-11.2	17	21	3.5	-0.4	2.45	125	3	6	/	/
Mooncoin (Silverspring) Co. Kilkenny	1-10	6.0	/	6	3	9.2	2.4	5.8	/	-3.3	08	2	20	0	-6.2	08	7	/	/	/	/	/	/	/	/
	11-20	16.2	/	4	2	5.7	-0.4	2.6	/	-4.3	18	5	1	0	-8.9	17	8	/	/	/	/	/	/	/	/
	21-end	48.9	/	9	9	8.3	-0.1	4.1	/	-2.4	31	6	6	0	-7.4	25	11	/	/	/	/	/	/	/	/
	Month	71.1	/	19	14	7.8	0.6	4.2	/	-4.3	18	13	27	0	-8.9	17	26	/	/	/	/	/	/	/	/
Ballinamore Co. Leitrim	1-10	58.6	/	7	7	2.4	1.9	4.6	/	-2.8	03	2	11	0	-7.4	08	7	/	/	/	/	/	/	/	/
	11-20	23.8	/	6	5	5.4	-0.3	2.6	/	-4.2	18	6	1	0	-9.5	17	9	/	/	/	/	/	/	/	/
	21-end	65.2	/	10	10	6.3	-0.4	3.0	/	-3.8	31	5	2	0	-10.5	30	11	/	/	/	/	/	/	/	/
	Month	147.6	/	23	22	6.4	0.4	3.4	/	-4.2	18	13	14	0	-10.5	30	27	/	/	/	/	/	/	/	/
Ardee (Boharnamoe) Co. Louth	1-10	35.3	/	7	5	7.7	2.9	5.3	/	-1.2	08	1	14	0	-1.7	08	6	/	/	/	/	/	/	/	/
	11-20	11.2	/	5	2	5.4	0.3	2.8	/	-3.3	18	3	2	0	-8.2	18	8	/	/	/	/	/	/	/	/
	21-end	39.6	/	9	8	6.9	0.3	3.6	/	-3.7	30	3	3	0	-7.4	30	8	/	/	/	/	/	/	/	/
	Month	86.1	/	21	15	6.7	1.1	3.9	/	-3.7	30	7	19	0	-8.2	18	22	/	/	/	/	/	/	/	/
Ballinrobe (Creagh) Co. Mayo	1-10	52.7	/	8	7	9.2	4.0	6.6	/	-0.6	10	1	25	0	-1.8	10	5	/	/	/	/	/	/	/	/
	11-20	37.2	/	6	6	6.9	0.4	3.7	/	-5.1	18	3	7	0	-7.2	18	8	/	/	/	/	/	/	/	/
	21-end	69.4	/	11	8	7.7	0.4	4.0	/	-3.2	30	4	4	0	-7.2	30	11	/	/	/	/	/	/	/	/
	Month	159.3	/	25	21	7.9	1.6	4.7	/	-5.1	18	8	36	0	-7.2	30	24	/	/	/	/	/	/	/	/

Notes on the tables in January issue

TABLE 1 (Continued)

January, 1978.

STATION	PERIOD	RAINFALL (MM.)				TEMPERATURE °C														BRIGHT SUNSHINE		WIND	
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10. CM)				MEAN DAILY (HRS.)	% OF AVERAGE	MEAN SPEED (ms ⁻¹)	DAYS WITH GALE GUSTS
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.4°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE				
Belmullet e Co. Mayo	1-10	40.9	-	9	8	9.3	5.6	7.4	-	1.1	09	0	30	0	0.1	10	0	6.6	-	0.98	-	9	8
	11-20	17.8	-	9	5	7.7	2.5	5.1	-	-0.5	18	1	11	0	-4.8	18	4	4.9	-	1.54	-	6	6
	21-end	56.8	-	10	7	6.8	2.2	4.5	-	0.3	30	0	8	0	-3.4	30	4	4.5	-	1.32	-	8	7
	Month	115.5	103	28	20	7.9	3.3	5.6	-0.2	-0.5	18	1	49	0	-4.8	18	8	5.3	+0.3	1.28	79	8	21
Claremorris e Co. Mayo	1-10	52.2	-	9	7	8.5	3.2	5.9	-	0.2	10	0	17	0	-3.6	02	3	5.5	-	1.81	-	6	5
	11-20	26.7	-	7	6	5.7	-0.1	2.8	-	-4.7	18	5	3	0	-11.2	18	7	2.6	-	2.35	-	4	3
	21-end	52.3	-	11	8	6.3	0.5	3.4	-	-2.6	30	3	3	0	-7.6	30	9	2.8	-	1.59	-	6	5
	Month	131.2	116	27	21	6.8	1.2	4.0	-0.2	-4.7	18	8	23	0	-11.2	18	19	3.6	-0.2	1.91	112	5	13
Glenamoy Co. Mayo	1-10	56.2	/	8	8	8.9	4.5	6.7	/	1.0	10	0	24	0	-0.5	10	2	/	/	1.12	/	/	/
	11-20	31.7	/	9	8	7.4	1.1	4.3	/	-2.0	18	3	7	0	-3.8	16	6	/	/	1.78	/	NA	/
	21-end	76.6	/	11	10	7.1	0.4	3.7	/	-2.6	30	3	2	0	-4.0	30	7	/	/	1.50	/	NA	/
	Month	164.5	/	28	26	7.8	2.0	4.9	/	-2.6	30	6	33	0	-4.0	30	15	/	/	1.47	/	NA	/
Dunsany (Grange) Co. Meath	1-10	26.5	-	7	6	7.1	2.4	4.7	/	-0.2	10	2	11	0	-7.2	08	6	/	/	2.54	/	/	/
	11-20	9.9	-	4	2	4.3	-1.2	1.6	/	-4.5	18	6	0	0	-11.5	17	8	/	/	1.90	/	NA	/
	21-end	38.4	-	8	8	6.5	-0.9	2.8	/	-5.5	30	5	2	0	-12.1	30	10	/	/	2.57	/	NA	/
	Month	74.8	96	19	16	6.0	0.1	3.0	/	-5.5	30	13	13	0	-12.1	30	24	/	/	2.35	/	NA	/
Clones e Co. Monaghan	1-10	25.8	-	8	6	7.5	2.6	5.1	-	-0.3	10	1	12	0	-3.7	08	5	5.0	-	2.21	-	5	3
	11-20	14.2	-	4	4	4.6	0.0	2.3	-	-3.1	17	5	1	0	-7.8	18	7	3.1	-	1.45	-	3	2
	21-end	42.9	-	9	7	6.0	0.1	3.0	-	-2.7	30	3	2	0	-7.6	30	8	2.9	-	2.86	-	5	4
	Month	82.9	93	21	17	6.0	0.8	3.4	-0.4	-3.1	17	9	15	0	-7.8	18	20	3.7	+0.2	2.20	131	4	9
Birr e Co. Offaly	1-10	31.9	-	8	6	8.4	3.4	5.9	-	0.6	10	0	17	0	-3.9	08	4	5.5	-	1.96	-	4	3
	11-20	6.4	-	3	2	5.2	-0.4	2.4	-	-4.1	18	5	2	0	-8.3	18	7	2.4	-	2.37	-	3	1
	21-end	34.7	-	8	8	6.7	0.4	3.5	-	-4.4	30	2	4	0	-8.7	30	10	3.0	-	2.51	-	5	3
	Month	73.0	92	19	16	6.7	1.1	3.9	-0.5	-4.4	30	7	23	0	-8.7	30	21	3.6	-0.4	2.29	129	4	7
Thurles Co. Tipperary	1-10	28.5	-	6	5													/	/	1.36	/	/	/
	11-20	15.5	-	5	4													/	/	2.42	/	/	/
	21-end	66.3	-	9	8													/	/	2.16	/	/	/
	Month	110.3	115	20	17													/	/	1.99	/	/	/

Notes on the tables in January issue

TABLE I (Continued)

January, 1978.

STATION	PERIOD	RAINFALL (MM.)				TEMPERATURE °C														BRIGHT SUNSHINE		WIND	
		AMOUNT	% OF AVERAGE	RAIN DAYS	WET DAYS	AIR							GROUND			SOIL (10 CM)				MEAN DAILY (HRS.)	% OF AVERAGE	MEAN SPEED (ms ⁻¹)	DAYS WITH GALE GUSTS
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE MAX ABOVE 4.4°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE				
Dungarvan (Ballygagin) Co. Waterford	1-10	13.7	/	6	3	9.3	NA	-	/	NA	-	-	-	NA	-	/	/	1.90	/	2	/		
	11-20	18.4	/	5	3	5.8	0.3	3.1	/	-2.5	18	4	1	0	-6.4	17	8	2.78	/	2	/		
	21-end	72.2	/	9	9	8.6	1.0	4.8	/	-1.8	30	3	9	0	-6.8	30	10	3.63	/	3	/		
	Month	104.3	/	20	15	7.9	-	-	/	-	-	-	-	-	-	-	-	2.80	/	2	/		
Mullingar e Co. Westmeath	1-10	37.9	-	8	7	7.7	2.4	5.0	-	-1.6	08	2	13	0	-5.8	08	4	4.8	-	2.45	-	6	3
	11-20	12.0	-	5	3	4.5	-0.7	1.9	-	-5.3	18	6	1	0	-8.8	18	8	2.2	-	1.94	-	4	1
	21-end	50.4	-	10	8	6.0	-0.1	3.0	-	-3.2	30	5	1	0	-6.7	30	10	2.5	-	3.13	-	6	4
	Month	100.3	108	23	18	6.0	0.5	3.3	-0.6	-5.3	18	13	15	0	-8.8	18	22	3.1	-0.5	2.53	131	5	8
Campile (Ballysop) Co. Wexford	1-10	9.0	/	5	5	8.7	3.4	6.0	/	-0.6	08	2	21	0	-5.8	08	6	/	/	1.92	/	/	/
	11-20	18.7	/	6	2	5.2	-0.7	2.3	/	-3.7	19	6	1	0	-9.1	17	7	/	/	2.76	/	NA	/
	21-end	46.2	/	9	7	7.8	0.4	4.1	/	-3.1	30	5	4	0	-8.6	30	10	/	/	3.10	/	/	/
	Month	73.9	/	20	14	7.2	1.0	4.1	/	-3.7	19	13	26	0	-9.1	17	23	/	/	2.61	/	/	/
Clonroche Co. Wexford	1-10	18.6	/	7	5	8.2	2.4	5.3	/	-1.5	08	2	14	0	-8.5	08	6	/	/	1.82	/	3	/
	11-20	20.8	/	4	2	5.0	-0.8	2.1	/	-3.6	18	6	0	0	-10.5	18	9	/	/	2.22	/	2	/
	21-end	64.7	/	9	9	7.4	-0.1	3.6	/	-2.5	30	4	2	0	-10.1	31	10	/	/	3.15	/	3	/
	Month	104.1	/	20	16	6.9	0.5	3.7	/	-3.6	18	12	16	0	-10.5	18	25	/	/	2.42	/	3	/
Johnstown Castle Co. Wexford	1-10	7.7	-	4	3	9.1	4.1	6.6	/	0.6	10	0	23	0	-4.0	08	6	/	/	2.39	/	4	/
	11-20	14.3	-	5	2	5.4	0.2	2.8	/	-3.0	17	4	1	0	-9.4	17	8	/	/	2.72	/	4	/
	21-end	53.1	-	9	7	7.8	0.6	4.2	/	-1.0	30	3	4	0	-8.0	31	8	/	/	3.49	/	5	/
	Month	75.1	65	18	12	7.5	1.6	4.5	/	-3.0	17	7	28	0	-9.4	17	22	/	/	2.89	/	4	/
Rosslare e Co. Wexford	1-10	6.2	-	5	3	9.4	5.1	7.3	-	1.9	10	0	29	0	-0.8	08	3	6.4	-	2.18	-	5	2
	11-20	9.5	-	3	1	6.2	1.2	3.7	-	-2.3	17	2	3	0	-6.6	17	6	2.9	-	2.66	-	6	4
	21-end	37.1	-	8	8	7.8	2.4	5.1	-	0.5	30	0	11	0	-3.9	31	5	4.4	-	3.45	-	7	6
	Month	52.8	51	16	12	7.8	2.9	5.3	-0.9	-2.3	17	2	43	0	-6.6	17	14	4.5	-0.8	2.79	126	6	12

Notes on the tables in January issue

TABLE 2

SOLAR RADIATION (GLOBAL), POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE January, 1978.

STATION	PERIOD	SOLAR RADIATION	P.E. (mm)	SOIL MOISTURE (mm)		
		Amount Joule/cm ²	Amount	Deficit	Accumulated Deficit	Surplus
Carlow (Oak Park) Co. Carlow	1-10		4	-	0	10
	11-20		7	-	0	8
	21-end	-	17	-	0	23
	Month		28	-	-	-
Kinsealy* Co. Dublin	1-10	2774	6	-	0	21
	11-20	2532	0	-	0	11
	21-end	4183	7	-	0	17
	Month	9489	13	-	-	-
Cahirciveen e (Valentia Obsy.) Co. Kerry	1-10	1792	13	-	0	16
	11-20	2895	-5	-	0	46
	21-end	2838	-5	-	0	95
	Month	7525	3	-	-	-
Kilkenny e Co. Kilkenny	1-10	2430				
	11-20	2865	-	-	-	-
	21-end	4090				
	Month	9385				
Ballinamore Co. Leitrim	1-10		15	-	0	44
	11-20		6	-	0	18
	21-end	-	19	-	0	46
	Month		40	-	-	-
Glenamoy/ Co. Mayo	1-10		3	-	0	53
	11-20		-2	-	0	33
	21-end	-	-5	-	0	82
	Month		-4	-	-	-
Birr e Co. Offaly	1-10	2517				
	11-20	3131	-	-	-	-
	21-end	4200				
	Month	9848				
Johnstown Castle Co. Wexford	1-10		3	-	0	4
	11-20		5	-	0	9
	21-end	-	14	-	0	40
	Month		22	-	-	-

*, /, See notes in January issue.

AGROMETEOROLOGICAL BULLETIN - NOTES

1. The term "rainfall" includes all forms of precipitation (snow, hail, dew) measured as equivalent rain.
2. "Rain days" and "Wet days" are days during which the total rainfall is not less than 0.2 mm and 1.0 mm respectively.
3. The mean daily air temperature over a period is taken as the average of the daily maximum and daily minimum temperature over the period.
4. For a given daily mean temperature of $T^{\circ}\text{C}$ (See 3) the degree day total (DD) above the base temperature ($B^{\circ}\text{C}$) is given by $\text{DD} = (T - B)^{\circ}\text{C days}$ when T is greater than B . If T is less than B then $\text{DD} = 0$ for that day.
5. Days with air frost are those during which the minimum air temperature is below 0.0°C .
6. "Ground" temperatures refer to temperatures measured with a thermometer placed horizontally on pegs just above the tips of short grass.
7. Days with ground frost are those during which the minimum "ground" temperature is below 0.0°C .
8. The mean daily soil temperature (at 10 cm depth under a bare soil surface) over a period is taken as the average of four daily readings (at 0300, 0900, 1500 and 2100 GMT) over the period at stations marked "e" in the Tables.
9. Mean daily wind speed over a period is taken as the average of hourly values during the period at stations marked "e". At other stations, mean daily wind speed is computed from once-daily readings of run-of-the-wind. From January 1978 wind speed is published in metres per second. (One $\text{ms}^{-1} = 1.94$ knots or 2.24 mph).

All wind speeds refer to the wind at 10 metres effective height above the ground; where measurements are made at other heights the wind speed readings are corrected to a height of 10 metres.
10. Days with gale-gusts are those (at stations marked "e") during which the wind speed exceeded 17 ms^{-1} (33 knots) at any time during the day.
11. Potential evapotranspiration (P.E.) values given in Table 2 are those measured by means of soil-filled tanks sunk into the ground with their upper, grass-covered ends at surface level. The symbol * indicates that solar radiation values refer to Dublin Airport. The symbol / indicates that solar radiation values refer to Belmullet.
12. Soil moisture deficits and surpluses are computed from the differences between rainfall and actual evapotranspiration (A.E.). Estimates of A.E. are derived from measured values of P.E. (see Agmet. Mem. No. 1, 1968). Soil moisture surpluses are assumed to be removed by drainage and surface run-off and are not, therefore, carried forward from one period to the next. Soil moisture deficits are, however, regarded as being cumulative.
13. Deviations of monthly values of rainfall, air temperature, soil temperature and bright sunshine from long-term averages are shown in Table 1 in the case of stations for which those averages are known. Averages of air temperature and bright sunshine refer to the period 1931-1960. Due to a change of site at Mullingar, averages of air temperature used are estimates based on old site. Averages of soil temperature refer to the period 1956-1975. Averages of rainfall refer to the period 1941-1970.
14. In cases where elements are not normally measured or where long-term averages are not available, a dash (/) is inserted in the appropriate space in the Tables.

If, in a particular month, some data, normally given, are not included in the Bulletin, this omission will be indicated by the letters N/A in the appropriate space in the Tables.