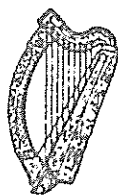


# METEOROLOGICAL SERVICE



## AGROMETEOROLOGICAL BULLETIN

OCTOBER 1982

### The Weather of October

From the 1st to 3rd the weather was changeable with spells of rain or showers; southwesterly winds were fresh and gusty at times. A showery northwest to northerly airflow, blustery for a time, dominated from 4th to 8th. This spell was followed by slack pressure conditions from 9th to 11th, occasioning light winds, patches of drizzle, mist and fog.

A depression affected the country on 12th/13th accompanied by spells of rain or showers and variable wind directions. A northwesterly airflow with blustery showers ensued on the 14th, which in turn was followed by a ridge on the 15th. Further depressions, affecting southern areas at first, yielded prolonged spells of very heavy rain particularly in the south and west on the 16th and 17th.

A southwesterly airflow dominated from 18th to 20th with frequent rain or showers. The unsettled conditions continued as troughs affected the country on the 21st and 22nd. A ridge followed on the 23rd.

From the 24th to the end of the month a strong and gusty southwesterly airflow dominated accompanied by frequent spells of widespread rain, especially heavy on the 29th and 30th.

Monthly Amounts of Precipitation were well above average in almost all areas. Amounts varied from 200% of normal at Cahirciveen to 118% of normal at Claremorris, except at Malin Head, which had only 85% of normal. Wettest days were the 1st, 3rd, 12th, 13th, 16th, 17th, 29th and 30th; the spell from the 15th to 17th was exceptionally wet in the southwest and the second decade was wettest generally. The number of wet days (days with 1.0 mm or more rainfall) in October varied from 20% to 40% above average.

Mean Monthly Temperature was below normal generally. Departures from normal varied from 0.5 °C below at Cahirciveen to 0.2 °C above at Dublin Airport. Occurrences of air frost were nil at most places but at Mallow and Fermoy there were two such occasions. Soil temperatures (100 mm) varied from 0.9 °C below average at Shannon Airport to 0.2 °C below at Clones. Accumulated degree days, with threshold 4.4 °C, were about 85% of average at most inland stations and, with threshold 10 °C, reached only some 20% - 40% of average except for coastal stations, which were some 50% of average.

Mean Duration of Bright Sunshine was well below normal in many areas, particularly in the south and west. Values ranged from 78% of normal at Cahirciveen to 106% of normal at Malin Head. Global solar radiation was 86% of average at Dublin Airport and 97% of average at Birr although the sunshine was 90% of normal at both stations.

Gale Gusts and Strong Winds occurred frequently, especially on the 1st, 3rd to 7th, 12th, 14th to 17th, 23rd and 25th to 30th.

Summary A very wet month almost everywhere. Exceptional rainfall occurred at Cahirciveen particularly in the period 15-17th. Otherwise the month was cold and dull, except in the extreme north.

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 1

OCTOBER 1982

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 <sup>-1</sup> )	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				
Carlow (Oak Park) Co. Carlow	1-10	30.2	/	6	5	13.6	8.0	10.8	/	5.6	3	0	64	9	1.6	3	0	/	/	2.68	/	4	/
	11-20	56.0	/	10	9	13.1	6.7	9.9	/	3.0	15	0	55	2	-1.0	15	1	/	/	1.70	/	4	/
	21-end	37.0	/	5	5	12.9	5.7	9.3	/	-1.0	23	1	54	7	-4.6	23	3	/	/	3.08	/	4	/
	Month	123.2	/	21	19	13.2	6.7	10.0	/	-1.0	23	1	173	18	-4.6	23	4	/	/	2.41	/	4	/
Shannon Airport Co. Clare	1-10	30.3	-	5	4	14.3	8.6	11.5	-	7.1	5	0	70	15	4.8	9	0	11.2	-	2.89	-	5	3
	11-20	61.7	-	10	9	13.4	7.9	10.7	-	5.8	15	0	62	7	2.8	15	0	10.6	-	1.67	-	6	4
	21-end	43.5	-	9	7	13.5	7.3	10.4	-	3.0	23	0	66	10	-1.4	23	1	9.8	-	2.45	-	6	4
	Month	135.5	158	24	20	13.7	7.9	10.8	+0.1	3.0	23	0	198	32	-1.4	23	1	10.5	-0.9	2.34	81	6	11
Fermoy (Moore Park) Co. Cork	1-10	28.3	-	7	5	13.8	8.0	10.9	/	5.6	10	0	65	9	-1.0	10	3	/	/	2.94	/	3	/
	11-20	74.6	-	9	9	13.8	7.1	10.4	/	2.4	15	0	60	6	-3.5	15	3	/	/	1.52	/	3	/
	21-end	65.2	-	10	7	13.0	6.0	9.5	/	-1.7	23	2	56	11	-6.5	23	5	/	/	2.27	/	2	/
	Month	168.1	189	26	21	13.5	7.0	10.2	/	-1.7	23	2	181	26	-6.5	23	11	/	/	2.17	/	3	/
Mallow Co. Cork	1-10	40.4	-	7	5	13.9	7.8	10.8	/	5.4	5	0	64	9	0.9	2	0	/	/	N/A	/	/	/
	11-20	57.0	-	8	7	13.5	6.3	9.9	/	2.1	15	0	55	4	N/A	N/A	/	/	N/A	/	/	/	
	21-end	61.5	-	8	6	13.2	4.9	9.1	/	-1.5	21	2	50	5	N/A	N/A	/	/	2.11	/	/	/	
	Month	158.9	159	23	18	13.5	6.2	9.9	/	-1.5	21	2	169	18	N/A	N/A	/	/	N/A	/	/	/	
Roche's Point Co. Cork	1-10	19.2	-	4	3	13.8	9.4	11.6	-	7.1	5	0	72	16	4.0	3	0	11.9	-	3.33	-	7	5
	11-20	51.0	-	8	7	13.3	8.6	11.0	-	6.2	15	0	66	10	1.7	15	0	11.3	-	2.06	-	9	8
	21-end	90.2	-	8	7	12.6	8.1	10.4	-	3.8	23	0	66	10	-1.3	21	2	10.6	-	2.85	-	7	7
	Month	160.4	182	20	17	13.2	8.7	11.0	-0.4	3.8	23	0	204	36	-1.3	21	2	11.3	-0.4	2.75	86	7	20
Glencolumbkille Co. Donegal	1-10	50.3	/	9	7	13.4	7.5	10.4	/	4.0	10	0	60	10	N/A	N/A	/	/	2.74	/	3	/	
	11-20	93.2	/	9	8	12.2	7.1	9.6	/	3.8	11	0	52	1	N/A	N/A	/	/	1.64	/	5	/	
	21-end	60.4	/	10	10	12.2	6.9	9.5	/	4.5	23	0	56	5	N/A	N/A	/	/	1.48	/	5	/	
	Month	203.9	/	28	25	12.6	7.1	9.8	/	3.8	11	0	168	16	N/A	N/A	/	/	1.89	/	4	/	
Glenties Co. Donegal	1-10	42.7	-	7	6	13.6	7.0	10.3	/	4.5	4	0	59	7	0.4	4	0	/	/	2.84	/	/	/
	11-20	94.0	-	10	9	12.5	6.1	9.3	/	1.4	15	0	49	2	-0.9	15	1	/	/	1.67	/	/	/
	21-end	68.1	-	10	9	12.2	5.6	8.9	/	0.8	23	0	49	4	-1.5	23	2	/	/	1.80	/	/	/
	Month	204.8	132	27	24	12.7	6.2	9.5	/	0.8	23	0	157	13	-1.5	23	3	/	/	2.04	/	/	/

Notes on the tables in January issue

TABLE 1 (Continued)

OCTOBER 1982

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 <sup>-1</sup> )	DAYS WITH GALE GUSTS
						MEAN MAX.	MEAN MIN.	MEAN DAILY	AND DIFFERENCE FROM AVERAGE	LOWEST MIN.	DATE	DAYS WITH AIR FROST	DEGREE DAYS ABOVE 4.5°C	DEGREE DAYS ABOVE 10.0°C	LOWEST "GRASS-MIN."	DATE	DAYS WITH GROUND FROST	MEAN DAILY	DIFFERENCE FROM AVERAGE				
Malin Head e Co. Donegal	1-10	21.0	-	7	5	13.6	8.8	11.2	-	6.9	10	0	68	13	2.8	10	0	10.9	-	3.15	-	8	7
	11-20	52.4	-	10	8	12.6	7.6	10.1	-	3.7	13	0	57	5	1.1	13	0	9.8	-	1.90	-	10	9
	21-end	22.6	-	8	5	12.5	7.0	9.8	-	3.9	23	0	59	6	0.4	25	0	8.8	-	2.18	-	10	9
	Month	96.0	85	25	18	12.9	7.8	10.4	-0.1	3.7	13	0	184	24	0.4	25	0	9.8	-0.6	2.40	104	10	25
Casement Aerodrome Co. Dublin	1-10	28.3	-	8	6	13.7	7.6	10.7	-	5.2	5	0	63	10	2.4	3	0	10.9	-	2.24	-	4	2
	11-20	28.1	-	9	7	13.4	6.2	9.8	-	2.8	15	0	54	4	-0.6	15	1	9.8	-	1.97	-	7	4
	21-end	46.3	-	5	3	13.1	6.2	9.7	-	0.3	23	0	58	9	-4.2	23	1	9.1	-	3.47	-	7	8
	Month	102.7	158	22	16	13.4	6.7	10.1	+0.1	0.3	23	0	175	22	-4.2	23	2	9.9	-	2.59	80	6	14
Dublin Airport e Co. Dublin	1-10	31.0	-	7	6	13.8	8.3	11.1	-	5.1	5	0	66	13	2.9	3	0	11.4	-	2.66	-	4	3
	11-20	28.5	-	7	6	13.3	6.7	10.0	-	2.8	15	0	56	5	1.0	14	0	10.3	-	2.46	-	5	4
	21-end	38.7	-	5	4	13.3	7.1	10.2	-	2.4	23	0	64	10	-0.4	23	2	9.5	-	3.60	-	5	5
	Month	98.2	158	19	16	13.5	7.4	10.5	+0.2	2.4	23	0	186	28	-0.4	23	2	10.4	-0.3	2.93	90	5	12
Kinsealy Co. Dublin	1-10	34.7	-	7	4	13.9	8.1	11.0	/	5.4	5	0	66	11	0.6	2	0	/	/	2.08	/	3	/
	11-20	38.4	-	6	5	13.6	6.1	9.8	/	3.2	15	0	54	4	-1.1	11	1	/	/	3.12	/	5	/
	21-end	38.0	-	5	4	13.8	7.2	10.5	/	1.5	23	0	67	12	0.3	23	0	/	/	3.79	/	4	/
	Month	111.1	188	18	13	13.7	7.1	10.4	/	1.5	23	0	187	27	-1.1	11	1	/	/	2.90	/	4	/
Galway Co. Galway	1-10	27.1	-	5	5	13.8	8.3	11.1	-	5.3	5	0	66	11	2.1	5	0	11.3	-	3.68	-	5	3
	11-20	59.4	-	9	8	13.1	7.5	10.3	-	3.8	15	0	59	6	-0.1	15	1	10.7	-	2.72	-	7	8
	21-end	72.5	-	8	8	12.7	6.9	9.8	-	1.2	23	0	59	7	-2.4	23	1	9.7	-	1.94	-	6	8
	Month	159.0	138	22	21	13.2	7.5	10.4	-0.4	1.2	23	0	184	24	-2.4	23	2	10.6	-	2.75	99	6	19
Killarney (Muokrossa Hse) Co. Kerry	1-10	58.8	/	9	7	13.4	9.2	11.3	/	6.0	8	0	69	14	1.0	8	0	/	/	1.72	/	/	/
	11-20	120.2	/	10	8	13.7	7.7	10.7	/	4.6	15	0	63	8	0.1	15	0	/	/	1.29	/	/	/
	21-end	101.7	/	9	8	13.4	6.7	10.1	/	1.9	23	0	62	11	-2.8	23	3	/	/	2.54	/	/	/
	Month	280.7	/	28	23	13.5	7.8	10.7	/	1.9	23	0	194	33	-2.8	23	3	/	/	1.79	/	/	/
Cahirciveen (Valentia Obay.) Co. Kerry	1-10	50.5	-	9	7	14.1	9.3	11.7	-	7.5	5	0	73	17	4.6	8	0	11.8	-	2.95	-	6	5
	11-20	119.5	-	10	9	13.6	8.4	11.0	-	5.8	15	0	66	11	4.0	15	0	11.3	-	2.21	-	8	7
	21-end	113.5	-	10	9	13.2	7.8	10.5	-	4.7	21	0	67	10	2.3	21	0	10.4	-	1.55	-	7	7
	Month	283.5	200	29	25	13.6	8.5	11.1	-0.5	4.7	21	0	206	38	2.3	21	0	11.2	-0.6	2.21	78	7	19

Notes on the tables in January issue

TABLE 1 (Continued)

OCTOBER 1982

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 <sup>-1</sup> )	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
Ardfert (Liscahane) Co. Kerry	1-10	48.0	/	9	9	14.3	8.7	11.5	/	6.0	8	0	71	15	0.3	8	0	/	/	2.60	/	/	/
	11-20	89.5	/	9	9	14.1	7.9	11.0	/	4.2	15	0	66	10	-1.5	15	1	/	/	2.39	/	/	/
	21-end	70.8	/	9	7	13.3	7.5	10.4	/	2.8	23	0	66	11	-2.2	23	1	/	/	2.53	/	/	/
	Month	208.3	/	27	25	13.9	8.0	10.9	/	2.8	23	0	203	36	-2.2	23	2	/	/	2.43	/	/	/
Lullymore Co. Kildare	1-10	28.9	-	8	6	13.2	7.0	10.1	/	4.2	5	0	57	6	-1.0	3	2	/	/	1.75	/	4	/
	11-20	39.6	-	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	/	5	/
	21-end	46.5	-	8	6	12.8	5.4	9.1	/	-0.3	23	1	52	6	-6.0	23	3	/	/	N/A	/	5	/
	Month	115.0	147	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	/	5	/
Kilkenny Co. Kilkenny	1-10	28.2	-	7	6	14.0	7.6	10.8	-	3.2	3	0	64	9	-1.3	3	1	10.7	-	3.00	-	4	1
	11-20	62.8	-	9	8	13.3	5.9	9.6	-	0.7	15	0	52	2	-2.7	15	2	9.9	-	1.63	-	5	5
	21-end	45.9	-	9	4	13.1	5.1	9.1	-	-1.6	23	1	52	7	-5.4	23	5	9.2	-	2.59	-	4	4
	Month	136.9	163	25	18	13.5	6.1	9.8	-0.1	-1.6	23	1	168	18	-5.4	23	8	9.9	-0.7	2.41	82	4	10
Mooncoin (Silverspring) Co. Kilkenny	1-10	31.1	-	8	4	14.0	8.1	11.0	/	5.2	3	0	56	11	0.0	3	0	/	/	3.47	/	/	/
	11-20	67.8	-	9	9	13.6	6.2	9.9	/	1.5	15	0	55	2	-3.8	15	2	/	/	1.82	/	/	/
	21-end	48.8	-	9	5	13.2	5.8	9.5	/	-0.4	21	1	56	10	-3.5	21	5	/	/	2.96	/	/	/
	Month	147.7	166	26	18	13.6	6.7	10.1	/	-0.4	21	1	177	23	-3.8	15	7	/	/	2.66	/	/	/
Ballinamore Co. Leitrim	1-10	27.6	/	6	3	13.9	6.1	10.0	/	3.5	3	0	56	4	-0.8	3	1	/	/	2.38	/	3	/
	11-20	55.5	/	8	7	12.5	5.5	9.0	/	3.1	11	0	46	1	-1.0	15	1	/	/	1.97	/	3	/
	21-end	44.2	/	8	7	12.4	4.4	8.4	/	-1.1	23	1	44	3	-2.1	23	4	/	/	2.73	/	4	/
	Month	127.3	/	22	17	12.9	5.3	9.1	/	-1.1	23	1	146	8	-2.1	23	6	/	/	2.28	/	3	/
Ardee (Boharnamoe) Co. Louth	1-10	29.4	/	9	6	14.3	7.2	10.8	/	3.6	3	0	64	9	-0.2	3	1	/	/	/	/	/	/
	11-20	30.6	/	8	6	13.1	4.9	9.0	/	0.3	15	0	46	1	-0.9	15	1	/	/	/	/	/	/
	21-end	35.9	/	7	6	13.6	5.7	9.7	/	0.1	23	0	58	7	-0.2	24	1	/	/	/	/	/	/
	Month	95.9	/	24	18	13.7	5.9	9.8	/	0.1	23	0	168	17	-0.9	15	3	/	/	/	/	/	/
Ballinrobe (Creagh) Co. Mayo	1-10	38.0	/	8	8	13.9	6.9	10.4	/	5.1	7	0	60	7	0.5	7	0	/	/	3.25	/	3	/
	11-20	76.6	/	10	7	13.7	5.7	9.7	/	2.1	15	0	53	2	N/A	N/A	N/A	/	/	2.19	/	4	/
	21-end	69.6	/	9	9	12.8	5.5	9.1	/	-0.6	23	1	52	3	-4.1	23	3	/	/	1.93	/	4	/
	Month	184.2	/	27	24	13.4	6.0	9.7	/	-0.6	23	1	165	12	N/A	N/A	N/A	/	/	2.38	/	4	/

Notes on the tables in January issue

TABLE I (Continued)

OCTOBER 1982

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 <sup>-1</sup> )	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 Co. Mayo	1-10	29.4	-	9	7	13.7	8.4	11.1	-	6.4	4	0	66	11	3.5	4	0	11.5	-	2.66	-	7	6
	11-20	72.5	-	10	9	12.9	7.8	10.4	-	3.7	15	0	59	6	1.2	15	0	10.9	-	2.21	-	8	8
	21-end	59.4	-	10	9	12.4	7.1	9.8	-	4.3	22	0	59	5	1.4	23	0	9.8	-	1.28	-	9	7
	Month	161.3	143	29	25	13.0	7.7	10.4	-0.4	3.7	15	0	184	22	1.2	15	0	10.7	-0.5	2.03	71	8	21
Claremorris Co. Mayo	1-10	24.0	-	6	5	13.5	7.1	10.3	-	4.3	5	0	59	8	-0.7	10	1	10.5	-	3.12	-	3	1
	11-20	66.8	-	10	7	12.7	6.1	9.4	-	1.9	15	0	50	2	-2.7	15	1	9.8	-	1.71	-	5	4
	21-end	49.1	-	9	8	12.2	5.5	8.9	-	-0.5	23	1	49	3	-6.4	23	1	9.0	-	1.53	-	5	4
	Month	139.9	118	25	20	12.8	6.2	9.5	-0.2	-0.5	23	1	158	13	-6.4	23	3	9.8	-0.5	2.10	82	4	9
Glenamoy Co. Mayo	1-10	45.1	-	10	8	13.7	7.8	10.7	/	5.4	4	0	63	10	3.2	4	0	/	/	2.36	/	/	/
	11-20	78.5	-	10	10	13.2	6.8	10.0	/	2.0	15	0	56	2	0.0	15	0	/	/	2.30	/	/	/
	21-end	65.0	-	11	10	12.2	6.0	9.1	/	1.8	23	0	52	5	-1.1	22	2	/	/	1.48	/	/	/
	Month	188.6	139	31	28	13.0	6.8	9.9	/	1.8	23	0	171	17	-1.1	22	2	/	/	1.98	/	/	/
Dunsany (Grange) Co. Meath	1-10	30.0	-	8	6	13.5	7.3	10.3	/	3.6	5	0	60	7	-1.1	3	1	/	/	2.33	/	N/A	/
	11-20	28.3	-	8	7	13.2	5.8	9.5	/	1.4	15	0	51	1	-4.0	15	1	/	/	2.30	/	N/A	/
	21-end	47.8	-	8	7	12.8	5.8	9.3	/	0.4	23	0	54	7	-3.5	23	1	/	/	3.51	/	N/A	/
	Month	106.1	136	24	20	13.2	6.3	9.7	/	0.4	23	0	165	15	-4.0	15	3	/	/	2.63	/	N/A	/
Clones Co. Monaghan	1-10	25.4	-	6	4	14.0	7.1	10.6	-	4.3	3	0	62	8	0.9	3	0	10.8	-	2.17	-	3	2
	11-20	50.1	-	9	9	12.2	5.5	8.9	-	2.0	15	0	44	1	-2.3	15	1	9.9	-	2.02	-	5	5
	21-end	41.3	-	9	8	12.6	5.2	8.9	-	0.9	23	0	50	3	-2.7	21	2	9.2	-	2.83	-	5	3
	Month	116.8	128	24	21	12.9	5.9	9.4	0.0	0.9	23	0	156	12	-2.7	21	3	9.9	-0.2	2.35	96	4	10
Birr Co. Offaly	1-10	21.6	-	7	4	13.5	6.9	10.2	-	1.3	10	0	58	7	-1.9	10	1	10.7	-	3.16	-	3	0
	11-20	54.7	-	9	8	13.1	5.9	9.5	-	1.5	15	0	51	2	-0.9	15	1	10.0	-	2.13	-	4	3
	21-end	39.3	-	9	5	13.0	6.0	9.5	-	0.1	23	0	56	6	-4.0	23	2	9.4	-	2.67	-	4	2
	Month	115.6	141	25	17	13.2	6.2	9.7	-0.2	0.1	23	0	165	15	-4.0	23	4	10.0	-0.6	2.65	90	3	5

Notes on the tables in January issue

TABLE 1 (Continued)

OCTOBER 1982

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 <sup>-1</sup> )	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				
Dungurvan (Ballygagin) Co. Waterford	1-10	41.2	-	4	4	14.7	8.8	11.8	/	6.4	6	0	73	17	1.9	3	0	/	/	3.60	-	3	/
	11-20	89.4	-	9	8	13.9	7.2	10.6	/	2.0	15	0	61	7	-1.0	15	1	/	/	1.96	-	3	/
	21-end	63.0	-	8	7	N/A	N/A	N/A	/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	/	N/A	-	2	/
	Month	193.6	196	21	19	N/A	N/A	N/A	/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	/	/	N/A	-	3	/
Mullingar e Co. Westmeath	1-10	20.1	-	7	3	13.5	6.4	10.0	-	2.8	3	0	56	5	-0.9	3	1	10.5	-	2.83	-	4	1
	11-20	45.4	-	10	8	12.6	5.1	8.9	-	3.8	15	0	45	1	0.5	19	0	9.7	-	2.18	-	5	2
	21-end	51.2	-	9	7	12.3	4.9	8.6	-	-0.3	23	1	46	3	-2.5	23	3	8.8	-	2.90	-	5	2
	Month	116.7	127	26	18	12.8	5.5	9.2	-0.3	-0.3	23	1	147	9	-2.5	23	4	9.6	-0.7	2.65	95	5	5
J.F.K. Park Co. Wexford	1-10	30.2	-	7	5	14.1	8.1	11.1	/	6.2	5	0	67	12	3.0	3	0	/	/	3.30	-	/	/
	11-20	59.1	-	10	9	13.0	6.4	9.7	/	1.6	15	0	53	1	-2.2	15	2	/	/	1.71	-	/	/
	21-end	47.8	-	7	7	12.8	6.9	9.9	/	1.6	23	0	60	9	-2.4	23	5	/	/	3.17	-	/	/
	Month	137.1	146	24	21	13.3	7.1	10.2	/	1.6	15	0	180	22	-2.4	23	7	/	/	2.64	-	/	/
Clonroche Co. Wexford	1-10	46.5	-	7	5	13.9	7.7	10.8	/	5.7	5	0	64	9	-0.6	5	1	/	/	3.24	-	2	/
	11-20	76.4	-	10	10	12.9	6.0	9.5	/	3.0	15	0	51	1	-1.8	19	3	/	/	1.80	-	3	/
	21-end	53.4	-	7	7	12.8	6.3	9.6	/	1.0	23	0	57	8	-3.1	21	5	/	/	3.34	-	2	/
	Month	176.3	166	24	22	13.2	6.7	9.9	/	1.0	23	0	172	18	-3.1	21	9	/	/	2.70	-	2	/
Johnstown Castle Co. Wexford	1-10	41.2	-	8	5	13.7	8.8	11.3	/	6.5	5	0	68	13	3.0	2	0	/	/	3.28	-	4	/
	11-20	64.5	-	9	8	12.8	7.3	10.1	/	3.9	15	0	56	3	1.0	15	0	/	/	2.27	-	6	/
	21-end	51.9	-	8	7	12.8	7.6	10.2	/	1.6	23	0	64	10	-1.8	23	2	/	/	3.52	-	5	/
	Month	157.6	171	25	20	13.1	7.9	10.5	/	1.6	23	0	188	26	-1.8	23	2	/	/	2.93	-	5	/
Rosslare e Co. Wexford	1-10	50.7	-	7	4	14.0	9.5	11.8	-	7.1	5	0	74	18	3.4	10	0	12.0	-	3.71	-	6	4
	11-20	58.5	-	8	7	13.3	7.9	10.6	-	3.9	15	0	62	8	1.0	15	0	10.7	-	2.10	-	7	7
	21-end	28.4	-	8	6	13.1	8.4	10.8	-	3.7	23	0	70	12	-0.7	23	1	10.5	-	3.25	-	6	5
	Month	137.6	170	23	17	13.5	8.6	11.1	-0.2	3.7	23	0	206	38	-0.7	23	1	11.1	-0.7	3.03	80	6	16

Notes on the tables in January issue

TABLE 2 GLOBAL SOLAR RADIATION

STATION	PERIOD	AMOUNT
		Joule/cm <sup>2</sup>
Malin Head Co. Donegal	1-10	6888
	11-20	4970
	21-end	4651
	Month	16509
Dublin Airport Co. Dublin	1-10	5312
	11-20	4727
	21-end	5193
	Month	15232
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	7070
	11-20	5529
	21-end	4313
	Month	16912
Kilkenny Co. Kilkenny	1-10	6333
	11-20	4768
	21-end	5500
	Month	16601
Belmullet Co. Mayo	1-10	6408
	11-20	5464
	21-end	3939
	Month	15811
Clones Co. Monaghan	1-10	6031
	11-20	4999
	21-end	5169
	Month	16199
Birr Co. Offaly	1-10	6730
	11-20	5534
	21-end	5734
	Month	17998

TABLE 3 POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE OCTOBER 1982

STATION	PERIOD	SOIL MOISTURE (mm)			
		P.E. (mm)	Deficit	Accumulated Deficit	Surplus
Carlow (Oak Park) Co. Carlow	1-10	5.1	-	0	38
	11-20	13.9	-	0	54
	21-end	-0.6	-	0	4
	Month	18.4	-	-	-
Kinsealy Co. Dublin	1-10	8.4	-	0	26
	11-20	9.6	-	0	29
	21-end	9.3	-	0	16
	Month	27.3	-	-	-
Cahirciveen (Valentia Obs.) Co. Kerry	1-10	2.2	-	0	60
	11-20	-1.5	-	0	116
	21-end	-0.7	-	0	92
	Month	0.0	-	-	-
Ballinamore Co. Leitrim	1-10	3.2	-	0	24
	11-20	2.4	-	0	53
	21-end	8.8	-	0	35
	Month	14.4	-	-	-
Glenamoy Co. Mayo	1-10	2.7	-	0	42
	11-20	4.0	-	0	75
	21-end	5.1	-	0	60
	Month	11.8	-	-	-
Johnstown Castle Co. Wexford	1-10	7.3	-	0	58
	11-20	10.2	-	0	58
	21-end	10.0	-	0	26
	Month	27.5	-	-	-

Notes on the tables in January issue

## special topic

### WINTER TEMPERATURE AND SPRING GRASS YIELD

In modern dairy farms the herd spends the winter months indoors. There are several important reasons why the herd should be turned out to graze fresh grass as early as possible in Spring. The date of turnout depends on the amount of grass on the pasture. This amount and consequently, the turnout date, varies from place-to-place and also from year-to-year. It would be a valuable asset to the advisory service to have a soundly based system for determining the turnout date in any particular district. An average date and an estimate of the year-to-year variability would be valuable in the context of forward planning of winter feed supplies.

Recent studies in France\* have shown that it is possible to relate spring grass yield to cumulative temperature during the winter months. The relationship is conveniently linear but it differs between species. For Tall Fescue spring yield is related to cumulative degree days by:

$$y = 0.0114x - 8.44$$

and for another species, Cocksfoot,

$$y = 0.0087x - 7.09$$

In both cases the base temperature used for cumulative degree days is 0°C.

The relationships indicate that very little dry matter accumulates until the cumulative total of degree days exceeds 740 and 814 in the case of Tall Fescue and Cocksfoot respectively. When the accumulated temperature exceeds these values, yield is directly related to cumulative temperature as long as the crop remains vegetative. The relationship breaks down when the crop becomes visibly reproductive in late April. Fortunately the potential usefulness of the relationships has passed before late April.

The application of this method of estimating yields of grass on pasture in early spring in Irish conditions will depend on the establishment of the appropriate equations for perennial ryegrass varieties of grass in Ireland. Much of Irish pasture is unsown permanent pasture. The setting up of appropriate equations in this latter case may be more difficult because permanent pasture is composed of a mixture of species and the mixture is variable.

A comparison of figures 1 and 2 illustrates the value of the approach. In figure 1 the separate growth curves for Tall Fescue in three different years are shown. In figure 2 it is shown how the three sets of yield data fall on a single line (data for period up to mid April only) when yield is plotted against cumulative degree days. These figures are taken from a recent issue of Grass and Forage Science\*.

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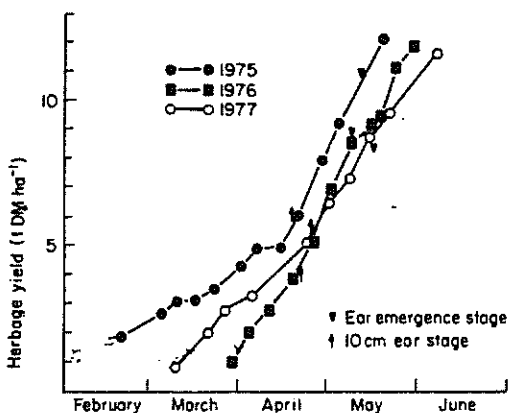


Fig.1.

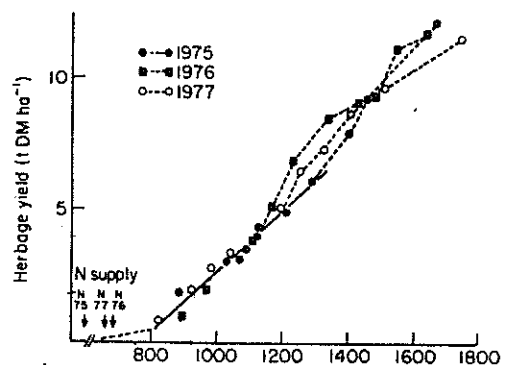


Fig.2.

\*Lemaire, G. and Salette, J. Grass and Forage Science (1982) Vol. 37, 191-198