

METEOROLOGICAL SERVICE



AGROMETEOROLOGICAL BULLETIN

FEBRUARY 1983

The Weather of February

A cold northwesterly airflow on the 1st, strong and gusty with showers, some of hail and sleet, moderated on the 2nd. A short interlude of high pressure on the 3rd was followed by the onset of a strong southwesterly airflow, accompanied by widespread rain, on the 4th. Following the passage of a cold front, a strong northwesterly airstream on the 5th, veering northerly on the 6th, was associated with frequent hail showers; thereafter a north to northeast airflow prevailed until the 9th. Subsequently a weak ridge of high pressure preceded a period of drizzle and rain which spread to all areas from the northwest. Further strong northerly winds on the 11th were followed by the passage of a cold front from the northwest on the 12th.

A period of lighter winds set in on the 13th and 14th but again strong easterlies developed on the 15th. Easterly winds, which dominated until the 23rd, were accompanied by spells of rain and sleet on the 20th and 21st, days on which winds were again strong and gusty. Heaviest falls of rain on the 20th occurred in southern areas, much of the north of the country, however, remaining dry, cloudy and mild. A further trough on the 25th, was accompanied by widespread rain, which spread from the southwest to all regions. Following this a west to northwest airflow became established with some showers occurring in all regions.

Monthly Amounts of Precipitation were generally below normal, being well below normal mainly in the northern half of the country and in the extreme southwest; amounts were above normal in the southeast and south mainly due to heavy rain on the 20th. Amounts varied from 125% of normal at Roche's Point to 33% of normal at Valentia. Both the number of rain days (days with not less than 0.2mm total rainfall) and wet days (days with not less than 1.0mm total rainfall) were well below average for nearly all stations. Wettest days in most areas were the 1st, 4th 19th 20th and 25th.

Mean Monthly Temperature varied from 1.7°C below normal at Roche's Point and Birr to 0.8°C below normal at Malin Head. Soil temperatures (100mm) also varied from 2.0°C below normal at Kilkenny to 0.8°C below at Malin Head. The coldest spell occurred between 6th and 20th when soil temperatures exceeded 3.0°C below normal at many places. Ground frost was severe on the 4th, 8th, 11th, 12th, and from the 17th to 19th. Accumulated degree days (threshold 4.4°C) varied from 65% of average at Valentia Observatory to 37% at a number of stations.

Mean Duration of Bright Sunshine varied from 96% of normal at Mullingar to 60% of normal at Casement Aerodrome. For most stations the last (eight day) period was dullest. Global solar radiation amounted to 92% of average at Birr (where sunshine was 85% of normal) and 83% of average at Kilkenny (where sunshine was 77% of normal).

Gales occurred in the west and south on the 1st, 5th and 6th. Strong winds and gale gusts were widespread on the 1st, 4th to 7th, 10th, 11th 15th 20th to 22nd, 26th and 27th.

Summary A cold, dull and in general a rather dry month.

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 in Table 2 will be published in the Annual Summary of Solar Radiation.

TABLE 1

| STATION | PERIOD | RAINFALL (MM) | | | | TEMPERATURE(°C) | | | | | | | | | | | | | | BRIGHT SUNSHINE | | WIND | | P.E. (PERMAN) (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 AND 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 | |
| Carlow (Oak Park) Co. Carlow | 1-10 | 8.5 | - | 4 | 4 | 5.5 | 0.1 | 2.8 | - | -3.7 | 4 | 4 | 3 | - | 0 | - | -9.4 | 4 | 8 | - | - | 2.61 | - | 5.9 | - | - |
| | 11-20 | 33.0 | - | 2 | 2 | 4.0 | -1.2 | 1.4 | - | -3.2 | 12 | 6 | 1 | - | 0 | - | -9.2 | 17 | 10 | - | - | 2.26 | - | 2.3 | - | - |
| | 21-end | 12.2 | - | 4 | 3 | 7.4 | 2.8 | 5.1 | - | 0.6 | 21 | 0 | 11 | - | 0 | - | -2.6 | 23 | 2 | - | - | 1.48 | - | 5.3 | - | - |
| | Month | 53.7 | 87 | 10 | 9 | 5.5 | 0.4 | 3.0 | - | -3.7 | 4 | 10 | 16 | - | 0 | - | -9.4 | 4 | 20 | - | - | 2.16 | - | 4.4 | - | 13 |
| Shannon Airport Co. Clare | 1-10 | 18.2 | - | 6 | 4 | 7.0 | 0.9 | 4.0 | - | -2.1 | 9 | 3 | 8 | - | 0 | - | -6.2 | 9 | 7 | 3.2 | - | 2.69 | - | 6.8 | 5 | - |
| | 11-20 | 42.1 | - | 3 | 3 | 5.0 | -0.2 | 2.4 | - | -2.7 | 17 | 5 | 2 | - | 0 | - | -8.0 | 12 | 8 | 2.3 | - | 2.29 | - | 4.3 | 0 | - |
| | 21-end | 9.9 | - | 5 | 3 | 8.2 | 4.3 | 6.2 | - | 1.3 | 21 | 0 | 17 | - | 0 | - | 0.3 | 21 | 0 | 5.1 | - | 0.85 | - | 7.2 | 5 | - |
| | Month | 70.2 | 111 | 14 | 10 | 6.6 | 1.5 | 4.1 | -1.4 | -2.7 | 17 | 8 | 27 | 43 | 0 | - | -8.0 | 12 | 15 | 3.4 | -1.6 | 2.02 | 79 | 6.0 | 10 | 19 |
| Fermoy (Coolnakilla) Co. Cork | 1-10 | 37.0 | - | 4 | 4 | 5.0 | N/A | N/A | - | N/A | N/A | N/A | - | N/A | - | -6.5 | 3 | 9 | - | - | 3.47 | - | 7.4 | - | - | |
| | 11-20 | 30.6 | - | 2 | 2 | 3.3 | -2.1 | 0.6 | - | -5.2 | 11 | 10 | 0 | - | 0 | - | -7.7 | 12 | 10 | - | - | 1.72 | - | 5.2 | - | - |
| | 21-end | 21.5 | - | 7 | 5 | 7.2 | 2.4 | 4.8 | - | -0.5 | 21 | 1 | 10 | - | 0 | - | -1.3 | 21 | 2 | - | - | 0.63 | - | 8.5 | - | - |
| | Month | 89.1 | - | 13 | 11 | 5.0 | N/A | N/A | - | N/A | N/A | N/A | - | N/A | - | -7.7 | 12 | 21 | - | - | 2.04 | - | 6.9 | - | N/A | |
| Fermoy (Moore Park) Co. Cork | 1-10 | 13.8 | - | 4 | 3 | 6.5 | -0.2 | 3.1 | - | -4.6 | 4 | 3 | 5 | - | 0 | - | -9.4 | 4 | 10 | - | - | 2.84 | - | N/A | - | - |
| | 11-20 | 29.1 | - | 2 | 2 | 4.6 | -1.3 | 1.7 | - | -6.0 | 17 | 6 | 1 | - | 0 | - | -11.7 | 17 | 9 | - | - | 2.09 | - | N/A | - | - |
| | 21-end | 17.1 | - | 4 | 3 | 8.5 | 4.2 | 6.3 | - | 1.7 | 21 | 0 | 17 | - | 1 | - | -2.8 | 23 | 2 | - | - | 0.54 | - | N/A | - | - |
| | Month | 60.0 | 85 | 10 | 8 | 6.4 | 0.7 | 3.5 | - | -6.0 | 17 | 9 | 24 | - | 1 | - | -11.7 | 17 | 21 | - | - | 1.91 | - | N/A | - | N/A |
| Mallow Co. Cork | 1-10 | 13.1 | - | 6 | 3 | 7.5 | 0.8 | 4.2 | - | -2.0 | 4 | 3 | 10 | - | 0 | - | -4.5 | 4 | 6 | - | - | 2.19 | - | - | - | - |
| | 11-20 | 25.9 | - | 2 | 2 | 5.5 | -1.0 | 2.3 | - | -5.0 | 17 | 6 | 3 | - | 0 | - | -8.0 | 17 | 5 | - | - | 1.50 | - | - | - | - |
| | 21-end | 13.3 | - | 5 | 4 | 9.2 | 4.9 | 7.1 | - | 2.4 | 21 | 0 | 22 | - | 1 | - | 3.5 | 21 | 0 | - | - | 0.47 | - | - | - | - |
| | Month | 52.3 | 62 | 13 | 9 | 7.3 | 1.3 | 4.3 | - | -5.0 | 17 | 9 | 35 | - | 1 | - | -8.0 | 17 | 11 | - | - | 1.45 | - | - | - | - |
| Roches Point Co. Cork | 1-10 | 7.6 | - | 4 | 2 | 7.0 | 1.8 | 4.4 | - | 0.4 | 10 | 0 | 9 | - | 0 | - | -1.6 | 3 | 6 | 4.3 | - | 3.95 | - | 8.5 | 6 | - |
| | 11-20 | 53.4 | - | 3 | 3 | 4.7 | 1.5 | 3.1 | - | -1.7 | 11 | 3 | 2 | - | 0 | - | -3.7 | 11 | 7 | 3.1 | - | 1.60 | - | 6.0 | 3 | - |
| | 21-end | 19.2 | - | 4 | 4 | 8.5 | 5.4 | 6.9 | - | 3.9 | 21 | 0 | 20 | - | 1 | - | 2.3 | 28 | 0 | 6.1 | - | 0.79 | - | 7.3 | 4 | - |
| | Month | 80.2 | 125 | 11 | 9 | 6.6 | 2.7 | 4.7 | -1.7 | -1.7 | 11 | 3 | 32 | 46 | 1 | - | -3.7 | 11 | 13 | 4.4 | -1.5 | 2.21 | 86 | 7.3 | 13 | 24 |
| Glencolumbkille Co. Donegal | 1-10 | 48.5 | - | 9 | 8 | 6.0 | 1.0 | 3.5 | - | -1.0 | 4 | 3 | 5 | - | 0 | - | -5.8 | 4 | 7 | - | - | 1.81 | - | 5.0 | - | - |
| | 11-20 | 4.5 | - | 3 | 1 | 6.4 | 1.3 | 3.9 | - | -0.1 | 19 | 1 | 6 | - | 0 | - | -4.1 | 19 | 8 | - | - | 3.20 | - | 2.9 | - | - |
| | 21-end | 14.0 | - | 4 | 3 | 7.8 | 3.2 | 5.5 | - | 1.0 | 22 | 0 | 13 | - | 0 | - | -1.0 | 21 | 2 | - | - | 2.44 | - | 7.4 | - | - |
| | Month | 67.0 | - | 16 | 12 | 6.7 | 1.7 | 4.2 | - | -1.0 | 4 | 4 | 24 | - | 0 | - | -5.8 | 4 | 17 | - | - | 2.49 | - | 4.8 | - | 19 |

Notes on the tables in January issue

TABLE 1 (CONTINUED)

FEBRUARY 1983

| STATION | PERIOD | RAINFALL (MM) | | | | TEMPERATURE(°C) | | | | | | | | | | | | | BRIGHT SUNSHINE | | WIND | | P.E. (PEWMAN) (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 AND 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 | 38.8 | - | 7 | 6 | 5.9 | -0.7 | 2.6 | - | -3.9 | 2 | 5 | 4 | - | 0 | - | -7.3 | 4 | 8 | - | - | 1.44 | - | - | - | - |
| | 11-20 | 2.0 | - | 3 | 1 | 6.4 | -0.2 | 3.1 | - | -2.9 | 19 | 6 | 6 | - | 0 | - | -8.3 | 19 | 9 | - | - | 3.16 | - | - | - | - |
| | 21-end | 18.3 | - | 4 | 3 | 7.8 | 2.3 | 5.1 | - | 0.9 | 21 | 0 | 11 | - | 0 | - | -5.3 | 26 | 7 | - | - | 2.51 | - | - | - | - |
| | Month | 59.1 | 55 | 14 | 10 | 6.6 | 0.3 | 3.5 | - | -3.9 | 2 | 11 | 20 | - | 0 | - | -8.3 | 19 | 24 | - | - | 2.36 | - | - | - | - |
| Malin Head Co. Donegal | 1-10 | 25.3 | - | 7 | 5 | 6.9 | 1.5 | 4.2 | - | -1.6 | 4 | 4 | 8 | - | 0 | - | -7.3 | 4 | 4 | 3.1 | - | 1.57 | - | 12.9 | 9 | - |
| | 11-20 | 2.0 | - | 2 | 1 | 6.2 | 2.6 | 4.4 | - | -1.0 | 11 | 1 | 7 | - | 0 | - | -5.1 | 19 | 5 | 3.7 | - | 2.54 | - | 6.9 | 3 | - |
| | 21-end | 14.2 | - | 3 | 3 | 7.6 | 3.1 | 5.4 | - | 1.6 | 22 | 0 | 12 | - | 0 | - | -3.5 | 23 | 3 | 4.1 | - | 1.74 | - | 8.8 | 7 | - |
| | Month | 41.5 | 56 | 12 | 9 | 6.8 | 2.3 | 4.6 | -0.8 | -1.6 | 4 | 5 | 27 | 59 | 0 | - | -7.3 | 4 | 12 | 3.6 | -0.8 | 1.96 | 88 | 9.6 | 19 | 31 |
| Casement Aerodrome Co. Dublin | 1-10 | 11.1 | - | 6 | 3 | 5.6 | -0.1 | 2.8 | - | -4.6 | 4 | 4 | 3 | - | 0 | - | -9.9 | 4 | 9 | 2.6 | - | 1.72 | - | 7.3 | 5 | - |
| | 11-20 | 14.4 | - | 4 | 2 | 4.3 | -0.5 | 1.9 | - | -4.5 | 17 | 5 | 1 | - | 0 | - | -10.0 | 17 | 9 | 1.8 | - | 1.88 | - | 4.5 | 2 | - |
| | 21-end | 5.6 | - | 3 | 2 | 7.8 | 2.8 | 5.3 | - | 1.0 | 22 | 0 | 13 | - | 0 | - | -4.8 | 24 | 6 | 3.7 | - | 1.47 | - | 6.7 | 4 | - |
| | Month | 31.1 | 59 | 13 | 7 | 5.8 | 0.6 | 3.2 | -1.5 | -4.6 | 4 | 9 | 18 | 41 | 0 | - | -10.0 | 17 | 24 | 2.6 | - | 1.71 | 60 | 6.1 | 11 | 23 |
| Dublin Airport Co. Dublin | 1-10 | 17.0 | - | 6 | 4 | 5.8 | 0.8 | 3.3 | - | -1.4 | 4 | 2 | 4 | - | 0 | - | -8.5 | 4 | 5 | 2.8 | - | 2.09 | - | 7.2 | 6 | - |
| | 11-20 | 9.8 | - | 6 | 3 | 4.6 | 1.0 | 2.8 | - | 1.3 | 11 | 4 | 2 | - | 0 | - | -8.0 | 17 | 6 | 2.3 | - | 1.69 | - | 4.1 | 2 | - |
| | 21-end | 17.0 | - | 3 | 2 | 7.4 | 3.5 | 5.4 | - | 1.9 | 22 | 0 | 12 | - | 0 | - | -0.3 | 23 | 1 | 4.1 | - | 2.16 | - | 6.2 | 2 | - |
| | Month | 43.8 | 89 | 15 | 9 | 5.8 | 1.6 | 3.7 | -1.4 | -1.4 | 4 | 6 | 18 | 37 | 0 | - | -8.5 | 4 | 12 | 3.0 | -1.3 | 1.97 | 74 | 5.8 | 10 | 25 |
| Kinsealy Co. Dublin | 1-10 | 16.3 | - | 6 | 4 | 5.8 | 0.5 | 3.2 | - | -4.3 | 4 | 2 | 4 | - | 0 | - | -9.1 | 4 | 9 | - | - | 2.15 | - | 5.6 | - | - |
| | 11-20 | 16.0 | - | 6 | 4 | 5.2 | 0.2 | 2.7 | - | -3.4 | 18 | 5 | 3 | - | 0 | - | -9.2 | 18 | 6 | - | - | 1.70 | - | 3.9 | - | - |
| | 21-end | 21.8 | - | 3 | 3 | 7.9 | 2.9 | 5.4 | - | 1.5 | 22 | 0 | 12 | - | 0 | - | -0.5 | 22 | 3 | - | - | 2.21 | - | 5.5 | - | - |
| | Month | 54.1 | 115 | 15 | 11 | 6.2 | 1.1 | 3.6 | - | -4.3 | 4 | 7 | 19 | - | 0 | - | -9.2 | 18 | 18 | - | - | 2.01 | - | 4.9 | - | 19 |
| Galway Co. Galway | 1-10 | 24.0 | - | 5 | 5 | 6.8 | 0.7 | 3.8 | - | -2.5 | 4 | 4 | 7 | - | 0 | - | -4.4 | 4 | 6 | 3.4 | - | 3.45 | - | 5.9 | 6 | - |
| | 11-20 | 10.3 | - | 3 | 2 | 5.1 | 0.4 | 2.8 | - | -2.4 | 17 | 4 | 3 | - | 0 | - | -3.6 | 19 | 6 | 3.1 | - | 1.65 | - | 4.2 | 1 | - |
| | 21-end | 6.1 | - | 4 | 4 | 8.1 | 3.7 | 5.9 | - | 0.9 | 21 | 0 | 16 | - | 0 | - | 0.6 | 21 | 0 | 4.8 | - | 1.22 | - | 6.1 | 2 | - |
| | Month | 40.4 | 54 | 12 | 11 | 6.6 | 1.4 | 4.0 | -1.5 | -2.5 | 4 | 8 | 26 | - | 0 | - | -4.4 | 4 | 12 | 3.7 | - | 2.17 | 87 | 5.4 | 9 | 20 |
| Killarney (Muckcross Hse.) Co. Kerry | 1-10 | 17.3 | - | 5 | 5 | 7.1 | 0.9 | 4.0 | - | -2.2 | 9 | 4 | 8 | - | 0 | - | -7.8 | 8 | 8 | - | - | 1.94 | - | - | - | - |
| | 11-20 | 36.4 | - | 2 | 2 | 4.9 | -0.4 | 2.2 | - | -3.5 | 12 | 6 | 2 | - | 0 | - | -10.0 | 12 | 8 | - | - | 1.53 | - | - | - | - |
| | 21-end | 17.5 | - | 4 | 3 | 9.8 | 5.4 | 7.6 | - | 4.5 | 21 | 0 | 26 | - | 1 | - | 0.6 | 21 | 0 | - | - | 0.75 | - | - | - | - |
| | Month | 71.2 | - | 11 | 10 | 7.1 | 1.7 | 4.4 | - | -3.5 | 12 | 10 | 36 | - | 1 | - | -10.0 | 12 | 16 | - | - | 1.45 | - | - | - | - |

Notes on the tables in January issue

TABLE 1 (CONTINUED)

FEBRUARY 1983

| STATION | PERIOD | RAINFALL (MM) | | | | TEMPERATURE (°C) | | | | | | | | | | | | | | | | BRIGHT SUNSHINE | | WIND | | P. E. (FENMAN) (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 AND 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 | 13.8 | - | 7 | 3 | 8.0 | 2.7 | 5.3 | - | 0.8 | 3 | 0 | 14 | - | 0 | - | -2.0 | 8 | 3 | 4.8 | - | 1.83 | - | 8.6 | 8 | - |
| | 11-20 | 10.0 | - | 3 | 2 | 6.3 | 1.0 | 3.7 | - | -3.5 | 17 | 3 | 6 | - | 0 | - | -5.2 | 17 | 5 | 3.7 | - | 1.90 | - | 5.1 | 3 | - |
| | 21-end | 12.9 | - | 4 | 3 | 10.3 | 6.5 | 8.4 | - | 4.4 | 21 | 0 | 32 | - | 1 | - | 3.8 | 21 | 0 | 7.0 | - | 0.63 | - | 7.7 | 7 | - |
| | Month | 36.7 | 33 | 14 | 8 | 8.0 | 3.2 | 5.6 | -1.2 | -3.5 | 17 | 3 | 53 | 65 | 2 | - | -5.2 | 17 | 8 | 5.0 | -1.1 | 1.51 | 61 | 7.1 | 18 | 28 |
| Ardfert (Liscahane) Co. Kerry | 1-10 | 14.4 | - | 5 | 4 | 7.0 | 1.2 | 4.1 | - | -2.7 | 9 | 2 | 9 | - | 0 | - | -7.9 | 8 | 7 | - | - | 2.61 | - | - | - | - |
| | 11-20 | 14.2 | - | 3 | 2 | 4.9 | -0.8 | 2.1 | - | -3.9 | 12 | 6 | 2 | - | 0 | - | -8.3 | 12 | 9 | - | - | 1.08 | - | - | - | - |
| | 21-end | 9.1 | - | 3 | 3 | 9.3 | 4.9 | 7.1 | - | -2.2 | 21 | 0 | 22 | - | 1 | - | 1.0 | 21 | 0 | - | - | 0.76 | - | - | - | - |
| | Month | 37.7 | - | 11 | 9 | 6.9 | 1.5 | 4.2 | - | -3.9 | 12 | 8 | 33 | - | 1 | - | -8.3 | 12 | 16 | - | - | 1.54 | - | - | - | - |
| Lullymore Co. Kildare | 1-10 | 16.6 | - | 4 | 4 | 5.1 | -0.7 | 2.2 | - | -5.0 | 4 | 7 | 2 | - | 0 | - | -10.4 | 4 | 9 | - | - | N/A | - | 5.7 | - | - |
| | 11-20 | 24.0 | - | 6 | 3 | 4.3 | -1.8 | 1.2 | - | -4.0 | 17 | 6 | 1 | - | 0 | - | -10.4 | 17 | 10 | - | - | N/A | - | 3.0 | - | - |
| | 21-end | 6.7 | - | 4 | 2 | 7.6 | 1.5 | 4.5 | - | -1.2 | 23 | 2 | 11 | - | 0 | - | -4.9 | 23 | 6 | - | - | 1.11 | - | 3.9 | - | - |
| | Month | 47.3 | 89 | 14 | 9 | 5.5 | -0.5 | 2.5 | - | -5.0 | 4 | 15 | 15 | - | 0 | - | -10.4 | 17 | 25 | - | - | N/A | - | 4.2 | - | N/A |
| Kilkenny Co. Kilkenny | 1-10 | 9.1 | - | 4 | 2 | 6.1 | 0.1 | 3.1 | - | -5.6 | 4 | 5 | 5 | - | 0 | - | -10.5 | 4 | 7 | 2.4 | - | 3.03 | - | 5.8 | 5 | - |
| | 11-20 | 36.4 | - | 2 | 2 | 4.1 | -0.2 | 2.0 | - | -3.0 | 11 | 3 | 1 | - | 0 | - | -9.2 | 17 | 9 | 1.3 | - | 1.83 | - | 2.9 | 0 | - |
| | 21-end | 11.0 | - | 5 | 3 | 7.4 | 3.2 | 5.3 | - | 0.9 | 21 | 0 | 13 | - | 0 | - | -1.9 | 23 | 3 | 3.9 | - | 0.99 | - | 4.5 | 3 | - |
| | Month | 56.5 | 99 | 11 | 7 | 5.8 | 0.9 | 3.3 | -1.6 | -5.6 | 4 | 8 | 19 | 37 | 0 | - | -10.5 | 4 | 19 | 2.4 | -2.0 | 2.02 | 77 | 4.4 | 8 | 19 |
| Mooncoin (Silverspring) Co. Kilkenny | 1-10 | 7.0 | - | 4 | 2 | 6.2 | -0.5 | 2.9 | - | -5.2 | 4 | 6 | 5 | - | 0 | - | -11.0 | 4 | 8 | - | - | 2.97 | - | - | - | - |
| | 11-20 | 38.6 | - | 3 | 2 | 4.3 | -0.8 | 1.7 | - | -3.5 | 17 | 6 | 1 | - | 0 | - | -10.7 | 17 | 10 | - | - | 2.45 | - | - | - | - |
| | 21-end | 23.1 | - | 8 | 4 | 8.1 | 3.0 | 5.6 | - | 0.3 | 21 | 0 | 15 | - | 1 | - | -7.0 | 23 | 4 | - | - | 0.56 | - | - | - | - |
| | Month | 68.7 | 98 | 15 | 8 | 6.1 | 0.4 | 3.2 | - | -5.2 | 4 | 12 | 21 | - | 1 | - | -11.0 | 4 | 22 | - | - | 2.10 | - | - | - | - |
| Ballinamore Co. Leitrim | 1-10 | 36.2 | - | 7 | 5 | 5.6 | -1.1 | 2.3 | - | -5.6 | 4 | 8 | 3 | - | 0 | - | -10.5 | 4 | 10 | - | - | 2.62 | - | 4.6 | - | - |
| | 11-20 | 3.8 | - | 3 | 1 | 5.5 | 0.2 | 2.9 | - | -3.0 | 11 | 5 | 3 | - | 0 | - | -8.0 | 19 | 7 | - | - | 1.69 | - | 2.1 | - | - |
| | 21-end | 23.8 | - | 4 | 4 | 7.8 | 2.0 | 4.9 | - | -1.1 | 23 | 1 | 11 | - | 0 | - | -6.0 | 23 | 4 | - | - | 1.31 | - | 2.9 | - | - |
| | Month | 63.8 | 85 | 14 | 10 | 6.2 | 0.3 | 3.2 | - | -5.6 | 4 | 14 | 18 | - | 0 | - | -10.5 | 4 | 21 | - | - | 1.91 | - | 3.3 | - | 12 |
| Ardee (Boharnamoe) Co. Louth | 1-10 | 24.3 | - | 6 | 5 | 7.0 | -0.6 | 3.2 | - | -5.5 | 4 | 5 | 8 | - | 0 | - | -4.2 | 9 | 8 | - | - | - | - | - | - | - |
| | 11-20 | 4.4 | - | 3 | 2 | 5.0 | 0.4 | 2.7 | - | -3.3 | 12 | 3 | 2 | - | 0 | - | -5.9 | 11 | 6 | - | - | - | - | - | - | - |
| | 21-end | 10.3 | - | 4 | 2 | 8.1 | 3.3 | 5.7 | - | 0.6 | 22 | 0 | 15 | - | 0 | - | -1.9 | 23 | 2 | - | - | - | - | - | - | - |
| | Month | 39.0 | - | 13 | 9 | 6.6 | 0.9 | 3.7 | - | -5.5 | 4 | 8 | 25 | - | 1 | - | -5.9 | 11 | 16 | - | - | - | - | - | - | - |

Notes on the tables in January issue

TABLE 1 (CONTINUED)

February 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 AND 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 | 40.6 | - | 8 | 7 | 6.7 | -0.4 | 3.2 | - | -5.1 | 4 | 4 | 6 | - | 0 | - | -9.8 | 4 | 7 | - | - | 2.36 | - | 4.4 | - | - |
| | 11-20 | 11.8 | - | 4 | 2 | 5.6 | -1.4 | 2.1 | - | -6.9 | 19 | 7 | 4 | - | 0 | - | -4.8 | 19 | 7 | - | - | 1.51 | - | 3.1 | - | - |
| | 21-end | 17.3 | - | 3 | 3 | 7.6 | 1.8 | 4.7 | - | -1.6 | 23 | 2 | 12 | - | 0 | - | -3.1 | 24 | 4 | - | - | 0.79 | - | 5.0 | - | - |
| | Month | 69.7 | 77 | 15 | 12 | 6.6 | -0.1 | 3.2 | - | -6.9 | 19 | 13 | 22 | - | 0 | - | -9.8 | 4 | 18 | - | - | 1.61 | - | 4.0 | - | 9 |
| Belmullet Co. Mayo | 1-10 | 32.2 | - | 9 | 8 | 7.6 | 1.6 | 4.6 | - | 0.3 | 3 | 0 | 10 | - | 0 | - | -2.4 | 4 | 4 | 4.6 | - | 1.73 | - | 8.2 | 6 | - |
| | 11-20 | 3.0 | - | 2 | 2 | 6.6 | 0.8 | 3.7 | - | -1.9 | 18 | 3 | 7 | - | 0 | - | -4.7 | 18 | 7 | 4.3 | - | 2.96 | - | 4.5 | 1 | - |
| | 21-end | 9.7 | - | 4 | 3 | 8.5 | 3.7 | 6.1 | - | 1.6 | 21 | 0 | 16 | - | 0 | - | -0.5 | 23 | 1 | 5.3 | - | 1.79 | - | 6.9 | 5 | - |
| | Month | 44.9 | 59 | 15 | 13 | 7.5 | 1.9 | 4.7 | -1.3 | -1.9 | 18 | 3 | 33 | 56 | 0 | - | -4.7 | 18 | 12 | 4.7 | -0.6 | 2.19 | 87 | 6.5 | 12 | 20 |
| Claremorris Co. Mayo | 1-10 | 30.8 | - | 7 | 6 | 6.4 | 0.2 | 3.3 | - | -2.1 | 4 | 4 | 5 | - | 0 | - | -6.0 | 4 | 7 | 2.8 | - | 2.30 | - | 7.4 | 7 | - |
| | 11-20 | 5.4 | - | 3 | 2 | 5.1 | -0.0 | 2.5 | - | -3.5 | 19 | 5 | 3 | - | 0 | - | -7.5 | 19 | 7 | 2.7 | - | 1.48 | - | 4.7 | 0 | - |
| | 21-end | 11.0 | - | 4 | 3 | 7.0 | 2.9 | 4.9 | - | -0.4 | 23 | 1 | 11 | - | 0 | - | -3.5 | 23 | 1 | 4.2 | - | 0.45 | - | 6.6 | 4 | - |
| | Month | 47.2 | 62 | 14 | 11 | 6.1 | 0.9 | 3.5 | -1.3 | -3.5 | 19 | 10 | 19 | 41 | 0 | - | -7.5 | 19 | 15 | 3.2 | -0.8 | 1.48 | 61 | 6.2 | 11 | 16 |
| Glenamoy Co. Mayo | 1-10 | 37.0 | - | 10 | 8 | 6.8 | 1.8 | 4.3 | - | -0.4 | 4 | 1 | 7 | - | 0 | - | -3.0 | 4 | 6 | - | - | 1.60 | - | 6.5 | - | - |
| | 11-20 | 5.2 | - | 3 | 2 | 6.3 | 0.4 | 3.4 | - | -2.2 | 18 | 5 | 6 | - | 0 | - | -4.6 | 18 | 7 | - | - | 2.30 | - | 1.8 | - | - |
| | 21-end | 16.1 | - | 3 | 3 | 8.0 | 3.0 | 5.5 | - | -0.5 | 22 | 1 | 14 | - | 0 | - | -1.8 | 23 | 2 | - | - | 1.50 | - | 7.3 | - | - |
| | Month | 58.3 | 59 | 16 | 13 | 7.0 | 1.6 | 4.3 | - | -2.2 | 18 | 7 | 27 | - | 0 | - | -4.6 | 18 | 15 | - | - | 1.82 | - | 5.0 | - | 14 |
| Dunsany (Grange) Co. Meath | 1-10 | 17.4 | - | 4 | 4 | 5.0 | -1.0 | 2.0 | - | -5.0 | 4 | 8 | 2 | - | 0 | - | N/A | 10 | - | - | 2.19 | - | - | - | - | - |
| | 11-20 | 8.7 | - | 5 | 2 | 4.1 | -1.1 | 1.5 | - | -4.7 | 18 | 5 | 1 | - | 0 | - | N/A | 9 | - | - | 1.90 | - | - | - | - | - |
| | 21-end | 10.2 | - | 3 | 3 | 7.3 | 2.1 | 4.7 | - | 0.3 | 22 | 0 | 10 | - | 0 | - | -2.4 | 22 | 4 | - | - | 1.78 | - | - | - | - |
| | Month | 36.3 | 65 | 12 | 9 | 5.3 | -0.2 | 2.6 | - | -5.0 | 4 | 13 | 13 | - | 0 | - | N/A | 23 | - | - | 1.97 | - | - | - | - | - |
| Clones Co. Monaghan | 1-10 | 27.9 | - | 6 | 4 | 5.6 | -0.3 | 2.7 | - | -4.0 | 4 | 5 | 3 | - | 0 | - | -9.7 | 4 | 6 | 2.7 | - | 2.67 | - | 5.2 | 5 | - |
| | 11-20 | 0.9 | - | 1 | 0 | 5.5 | 0.1 | 2.8 | - | -2.9 | 11 | 5 | 3 | - | 0 | - | -4.4 | 11 | 6 | 3.0 | - | 1.92 | - | 2.8 | 1 | - |
| | 21-end | 15.8 | - | 4 | 3 | 7.3 | 2.7 | 5.0 | - | -0.3 | 23 | 1 | 10 | - | 0 | - | -2.4 | 23 | 2 | 4.3 | - | 1.71 | - | 4.1 | 3 | - |
| | Month | 44.6 | 71 | 11 | 7 | 6.1 | 0.7 | 3.4 | -0.9 | -4.0 | 4 | 11 | 17 | 43 | 0 | - | -9.7 | 4 | 14 | 3.3 | -0.4 | 2.13 | 92 | 4.0 | 9 | 19 |
| Birr Co Offaly | 1-10 | 13.3 | - | 5 | 3 | 6.2 | -0.1 | 3.0 | - | -3.2 | 4 | 6 | 5 | - | 0 | - | -9.8 | 4 | 9 | 2.9 | - | 2.94 | - | 4.8 | 4 | - |
| | 11-20 | 21.3 | - | 3 | 2 | 4.4 | -0.9 | 1.7 | - | -4.4 | 12 | 6 | 1 | - | 0 | - | -10.7 | 12 | 10 | 1.9 | - | 2.56 | - | 2.7 | 1 | - |
| | 21-end | 5.4 | - | 3 | 2 | 7.6 | 3.2 | 5.4 | - | 1.4 | 21 | 0 | 13 | - | 0 | - | -0.7 | 23 | 3 | 4.4 | - | 1.00 | - | 5.1 | 2 | - |
| | Month | 40.0 | 75 | 11 | 7 | 5.9 | 0.6 | 3.2 | -1.7 | -4.4 | 12 | 12 | 19 | 37 | 0 | - | -10.7 | 12 | 22 | 3.0 | -1.3 | 2.25 | 85 | 4.1 | 7 | 14 |

Notes on the tables in January issue

TABLE 1 (CONTINUED)

February 1983

| STATION | PERIOD | RAINFALL (MM) | | | | TEMPERATURE (°C) | | | | | | | | | | | | | | BRIGHT SUNSHINE | | WIND | | P. E. (PERMAN) (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 AND 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 | 18.0 | - | 5 | 3 | 5.8 | 0.1 | 3.0 | - | -1.9 | 9 | 4 | 4 | - | 0 | - | -7.2 | 4 | 9 | - | - | - | - | - | - | - | - | - |
| | 11-20 | 39.0 | - | 2 | 2 | 3.9 | -1.6 | 1.2 | - | -4.7 | 17 | 6 | 1 | - | 0 | - | -8.8 | 17 | 10 | - | - | - | - | - | - | - | - | - |
| | 21-end | 13.6 | - | 5 | 3 | 7.9 | 2.7 | 5.3 | - | 0.4 | 21 | 0 | 14 | - | 1 | - | -1.9 | 27 | 5 | - | - | - | - | - | - | - | - | - |
| | Month | 70.6 | - | 12 | 8 | 5.7 | 0.3 | 3.0 | - | -4.7 | 17 | 10 | 18 | - | 1 | - | -8.8 | 17 | 24 | - | - | - | - | - | - | - | - | - |
| Dungarvan (Ballygagin) Co. Waterford | 1-10 | 8.3 | - | 4 | 3 | 6.5 | 0.2 | 3.4 | - | -4.0 | 4 | 4 | 6 | - | 0 | - | -5.6 | 4 | 7 | - | - | N/A | - | 3.8 | - | - | - | - |
| | 11-20 | 39.8 | - | 3 | 3 | 4.9 | 0.3 | 2.6 | - | -2.5 | 11 | 3 | 2 | - | 0 | - | -3.5 | 12 | 6 | - | - | N/A | - | 3.7 | - | - | - | - |
| | 21-end | 34.1 | - | 6 | 4 | 8.7 | 4.1 | 6.4 | - | 1.0 | 21 | 0 | 18 | - | 1 | - | 0.8 | 21 | 0 | - | - | 0.66 | - | 4.3 | - | - | - | - |
| | Month | 82.2 | 104 | 13 | 10 | 6.5 | 1.4 | 3.9 | - | -4.0 | 4 | 7 | 26 | - | 1 | - | -5.6 | 4 | 13 | - | - | N/A | - | 3.9 | - | N/A | - | - |
| Mullingar Co. Westmeath | 1-10 | 22.5 | - | 4 | 4 | 5.5 | -0.3 | 2.6 | - | -3.8 | 4 | 5 | 3 | - | 0 | - | -7.7 | 4 | 9 | 2.2 | - | 3.33 | - | 5.9 | 6 | - | - | - |
| | 11-20 | 11.1 | - | 5 | 3 | 4.5 | -0.5 | 2.0 | - | -3.5 | 11 | 5 | 1 | - | 0 | - | -6.3 | 18 | 8 | 1.6 | - | 2.54 | - | 3.8 | 0 | - | - | - |
| | 21-end | 12.4 | - | 4 | 3 | 7.4 | 2.3 | 4.8 | - | -0.8 | 22 | 1 | 10 | - | 0 | - | -3.1 | 22 | 2 | 3.7 | - | 1.31 | - | 5.2 | 2 | - | - | - |
| | Month | 46.0 | 74 | 13 | 10 | 5.7 | 0.4 | 3.0 | -1.5 | -3.8 | 4 | 11 | 15 | 37 | 0 | - | -7.7 | 4 | 19 | 2.4 | -1.5 | 2.47 | 96 | 5.0 | 8 | 17 | - | - |
| J.F.K. Park Co. Wexford | 1-10 | 9.6 | - | 2 | 2 | N/A | 0.9 | N/A | - | -0.6 | 3 | 4 | N/A | - | N/A | - | -7.1 | 3 | 8 | - | - | 2.89 | - | 5.8 | - | - | - | - |
| | 11-20 | 41.0 | - | 3 | 2 | 4.2 | -0.1 | 2.1 | - | -2.9 | 11 | 4 | 1 | - | 0 | - | -6.4 | 11 | 10 | - | - | 2.47 | - | 5.1 | - | - | - | - |
| | 21-end | 22.7 | - | 6 | 4 | 7.6 | 3.0 | 5.3 | - | 0.5 | 21 | 0 | 13 | - | 1 | - | -1.8 | 23 | 4 | - | - | 1.00 | - | 7.2 | - | - | - | - |
| | Month | 73.3 | 99 | 11 | 8 | N/A | 1.1 | N/A | - | -2.9 | 11 | 8 | N/A | - | N/A | - | -7.1 | 3 | 22 | - | - | 2.20 | - | 5.9 | - | N/A | - | - |
| Clonroche Co. Wexford | 1-10 | 10.9 | - | 5 | 2 | 5.4 | 0.3 | 2.8 | - | -1.7 | 4 | 4 | 3 | - | 0 | - | -7.6 | 4 | 9 | - | - | 3.33 | - | 3.3 | - | - | - | - |
| | 11-20 | 44.2 | - | 4 | 2 | 3.7 | -0.5 | 1.6 | - | -3.1 | 11 | 6 | 1 | - | 0 | - | -6.0 | 17 | 9 | - | - | 1.89 | - | 2.7 | - | - | - | - |
| | 21-end | 23.9 | - | 6 | 4 | 7.1 | 2.4 | 4.7 | - | 0.0 | 21 | 0 | 10 | - | 0 | - | -1.7 | 23 | 4 | - | - | 1.03 | - | 3.7 | - | - | - | - |
| | Month | 79.0 | 94 | 15 | 8 | 5.3 | 0.6 | 2.9 | - | -3.1 | 11 | 10 | 14 | - | 0 | - | -7.6 | 4 | 22 | - | - | 2.16 | - | 3.2 | - | - | 11 | - |
| Johnstown Castle Co. Wexford | 1-10 | 14.8 | - | 5 | 3 | 5.9 | 0.9 | 3.4 | - | -0.9 | 4 | 4 | 5 | - | 0 | - | -6.8 | 4 | 8 | - | - | 3.15 | - | 5.6 | - | - | - | - |
| | 11-20 | 38.0 | - | 4 | 3 | 4.1 | 0.3 | 2.2 | - | -3.0 | 11 | 2 | 1 | - | 0 | - | -5.2 | 17 | 8 | - | - | 2.09 | - | 5.2 | - | - | - | - |
| | 21-end | 22.4 | - | 6 | 4 | 7.5 | 2.7 | 5.1 | - | 1.2 | 21 | 0 | 11 | - | 0 | - | -2.1 | 28 | 2 | - | - | 1.08 | - | 5.7 | - | - | - | - |
| | Month | 75.2 | 107 | 15 | 10 | 5.7 | 1.2 | 3.5 | - | -3.0 | 11 | 6 | 16 | - | 0 | - | -6.8 | 4 | 18 | - | - | 2.18 | - | 5.5 | - | 14 | - | - |
| Rosslare Co. Wexford | 1-10 | 15.1 | - | 5 | 3 | 6.7 | 1.9 | 4.3 | - | -0.8 | 10 | 1 | 9 | - | 0 | - | -2.2 | 3 | 4 | 3.5 | - | 2.80 | - | 8.0 | 7 | - | - | - |
| | 11-20 | 34.2 | - | 4 | 3 | 4.6 | 2.2 | 3.4 | - | -0.5 | 11 | 1 | 1 | - | 0 | - | -2.0 | 11 | 5 | 3.2 | - | 2.30 | - | 8.0 | 3 | - | - | - |
| | 21-end | 19.5 | - | 6 | 4 | 7.7 | 4.1 | 5.9 | - | 2.0 | 21 | 0 | 15 | - | 1 | - | 0.3 | 27 | 0 | 5.0 | - | 1.05 | - | 7.0 | 4 | - | - | - |
| | Month | 68.8 | 117 | 15 | 10 | 6.3 | 2.6 | 4.4 | -1.6 | -0.8 | 10 | 2 | 25 | 41 | 1 | - | -2.2 | 3 | 9 | 3.8 | -1.7 | 2.12 | 77 | 7.7 | 14 | 28 | - | - |

Notes on the tables in January issue

TABLE 2 GLOBAL SOLAR RADIATION

| STATION | PERIOD | AMOUNT |
|---|--------|-----------------------|
| | | Joule/cm ² |
| Malin Head Co. Donegal | 1-10 | 2964 |
| | 11-20 | 4302 |
| | 21-end | 3956 |
| | Month | 11222 |
| Dublin Airport Co. Dublin | 1-10 | 3322 |
| | 11-20 | 3239 |
| | 21-end | 3912 |
| | Month | 10473 |
| Cahirciveen (Valentia Obs.) Co. Kerry | 1-10 | 3908 |
| | 11-20 | 4146 |
| | 21-end | 3733 |
| | Month | 11787 |
| Kilkenny Co. Kilkenny | 1-10 | 4263 |
| | 11-20 | 3647 |
| | 21-end | 3165 |
| | Month | 11075 |
| Belmullet Co. Mayo | 1-10 | 3350 |
| | 11-20 | 4872 |
| | 21-end | 4330 |
| | Month | 12552 |
| Clones Co. Monaghan | 1-10 | 3608 |
| | 11-20 | 3843 |
| | 21-end | 4031 |
| | Month | 11482 |
| Birr Co. Offaly | 1-10 | 4400 |
| | 11-20 | 4383 |
| | 21-end | 3546 |
| | Month | 12329 |

TABLE 3 POTENTIAL EVAPOTRANSPIRATION (P.E.) AND SOIL MOISTURE FEBRUARY 1983

| STATION | PERIOD | SOIL MOISTURE (mm) | | | |
|---|--------|--------------------|---------|---------------------|---------|
| | | P. E. (mm) | Deficit | Accumulated Deficit | Surplus |
| Carlow (Oak Park) Co. Carlow | 1-10 | | | | |
| | 11-20 | | | | |
| | 21-end | | | | |
| | Month | | | Not available | |
| Kinsealy Co. Dublin | 1-10 | 2.2 | - | 0 | 14 |
| | 11-20 | 12.2 | - | 0 | 4 |
| | 21-end | 6.4 | - | 0 | 15 |
| | Month | 20.8 | - | - | - |
| Cahirciveen (Valentia Obs.) Co. Kerry | 1-10 | -4.2 | - | 0 | 23 |
| | 11-20 | 14.6 | 11 | 11 | - |
| | 21-end | -1.0 | - | 0 | 20 |
| | Month | 9.4 | - | - | - |
| Ballinamore Co. Leitrim | 1-10 | -1.7 | - | 0 | 38 |
| | 11-20 | 5.8 | 2 | 2 | - |
| | 21-end | 6.5 | - | 0 | 17 |
| | Month | 10.6 | - | - | - |
| Glenamoy Co. Mayo | 1-10 | 1.3 | - | 0 | 36 |
| | 11-20 | 3.6 | - | 0 | 2 |
| | 21-end | 5.4 | - | 0 | 11 |
| | Month | 10.3 | - | - | - |
| Johnstown Castle Co. Wexford | 1-10 | 2.5 | - | 0 | 12 |
| | 11-20 | 5.8 | - | 0 | 32 |
| | 21-end | 0.7 | - | 0 | 22 |
| | Month | 9.0 | - | - | - |

special topic

VALENTIA OBSERVATORY

The Irish Meteorological Service station, Valentia Observatory, derives its name from the fact that it was originally established on Valentia Island. Meteorological observations were commenced on the island as far back as 1860 when the system of weather telegraphy was introduced by Admiral Fitzroy. These reports continued until 1867 when the Meteorological Committee of the Royal Society decided to establish an Observatory on the island. The Observatory routine was maintained on the island until March 1892 when the Observatory was transferred to its present site on the mainland approximately $\frac{1}{2}$ mile southwest of the town of Cahirciveen on the main 'Ring of Kerry' road.

As well as the routine hourly weather reports, observations of soil temperatures (at 5; 10, 20 cm depth) and earth temperatures (30, 60, 120cm depths) are measured four times daily - soil heat is necessary for crop development and its measure is used to estimate crop production. Hydrogen filled balloons are also launched four times daily at Valentia carrying aloft instruments, which send back to a ground receiver information on temperature, humidity and wind as the balloon ascends to a great altitude. This information is of particular importance to general forecasting and to commercial aviation.

Observations of evaporation are made with three different types of evaporimeter for comparison purposes. One of these is a square tank evaporimeter and the water depth is measured twice daily by means of a vernier gauge. The second evaporimeter consists of a tank about 20 cm in diameter exposed at the centre of another circular water tank about 305 cm in diameter. The purpose of this arrangement is to investigate the effect of surrounding the evaporimeter by a water surface. The third type is the standard Class A Pan evaporimeter which was installed in 1957 as part of the International Geophysical Year programme. Evapotranspiration measurements are made regularly with a Thornthwaite evapotranspirometer. Rainfall and evaporation measurements are used to determine the available water or soil moisture of the area as well as the hydrological balance within the region.

Plant growth depends on the synthesis by radiation of organic compounds from carbon dioxide. Measurements of radiation are therefore important to agriculture. Valentia Observatory is the 'National Radiation Centre' for solar radiation measurements in Ireland and is responsible for equipment calibration and quality control of radiation data from the other stations in the Meteorological Service network. At present these are Birr, Kilkenny, Dublin Airport, Clones, Malin Head and Belmullet. Monthly and 10-day totals of global radiation are published each month in this Bulletin. A more detailed article on solar radiation, measurements and equipment will be published as a special topic in the near future.

As befits a station with the title of an 'Observatory' measurements at Valentia are not solely confined to parameters of direct meteorological significance. Continuous recordings are made of the variations in magnetic Declination, Horizontal Force and Vertical Force of the earth's magnetic field. Observations of the absolute values of these parameters are made thrice weekly for the determination of base line standards thus enabling computation of the values at any time from the chart which continuously records the variations.

Valentia is included in the World Wide Standard Seismograph Network and continuous recordings are made of the components of seismic activity using the long and short period vertical and horizontal seismometers and recorders.

Observations of the concentration of condensation nuclei are made twice daily. Samples of air and precipitation are collected for chemical analysis in the Meteorological Service laboratory and for measurements of radio-activity by the Nuclear Energy Board.

In co-operation with the German Meteorological Service, an International Phenological Garden is maintained at Valentia as part of a network of such gardens in Europe. There are various species of trees in the garden and the results of a schedule of observations e.g. data of first blossom, first fruit, last blossom etc. are forwarded annually to the Association of International Phenological Gardens.

E.J. Murphy
(Valentia Observatory,
Cahirciveen Co. Kerry