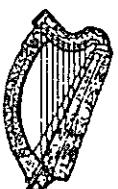


METEOROLOGICAL SERVICE



AGROMETEOROLOGICAL BULLETIN

JANUARY 1982

The Weather of January

From the 1st to the 5th the weather was cloudy and mild. Southwesterly winds were gusty at times and widespread rain, was particularly heavy on the 2nd and 3rd.

A very cold spell set in on the 6th and widespread heavy falls of snow occurred, beginning in southern regions on the 7th and extending to most regions on the 8th. Strong to gale force easterly winds caused extensive blizzards on the 8th and 9th, especially in the southeast, east and midland regions, giving snow drifts in some areas of between 2 and 5 metres. Falls of snow were least in the west and northwest, where some areas escaped entirely. Subsequently, a spell of very cold, dry and bright weather became established on the 10th. The widespread snow remained lying on the ground and there was sharp to very severe air and ground frost up to the 14th. A slow thaw then set in from the southwest, the thaw becoming general on the 15th and 16th.

A south to southwesterly airflow dominated from the 16th to 21st. Most nights were without frost and there were outbreaks of rain and drizzle, which were especially heavy in the south and west on the 18th. Subsequently the weather became changeable, with showers or longer spells of rain, southwest to west winds, and temperatures mostly above normal up to the end of the month.

Monthly Amounts of Precipitation were below normal everywhere except in parts of the south and southwest and in the north-midlands. Amounts varied from 11% of normal at Valentia Observatory to 59% of normal at Glenamoy. The number of wet days and rain days were each below average for January. Widespread snow remained on the ground from the 8th to 15th.

Mean Monthly Air Temperature was above normal everywhere except in parts of the west and northwest. Values varied from 0.4°C above normal at Dublin Airport to 0.3°C below normal at Belmullet and Galway. Soil temperature (100mm) varied from 0.4°C above normal at Valentia Observatory and at Rosslare to 0.5°C below normal at Malin Head. Following the very cold spell, ending on the 15th, soil temperatures recovered and by the end of the month were some 2°C above average, giving an early start to grass growth.

Mean Duration of Bright Sunshine was below normal in most places, varying from 62% of normal at Kilkenny to 10% of normal at Malin Head. The second decade was brightest except in the northwest, where the first decade was sunniest.

Strong Winds and Gale Gusts occurred on the 2nd/3rd, 7th, 8th/9th (notably accompanied by blizzards), the 17th/18th, 20th/22nd and on the 26th.

Summary The month was notable for widespread blizzard conditions on the 8th and 9th followed by an intensely cold spell, lasting to 15th. The remainder of the month was mild and dull.

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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 (ms^{-1}) is taken as the average of hourly values during the period at stations marked "e". Days with gale-gusts are those during which the wind speed exceeded 17 ms^{-1} at any time during the day. At other stations, mean daily wind speed is computed from once-daily readings of run-of-the-wind.
- 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. From January 1982, additional stations are included in Table 2 giving values of solar radiation.
 11. Potential evapotranspiration (P.E.) values given in Table 3 are those measured by means of soil-filled tanks sunk into the ground with their upper, grass-covered ends at surface level.
 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. 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.
15. Observations having ceased at Lisdara, Tralee, Co. Kerry on December 1979, a recently opened climate station at Liscahane, Ardfert, Co. Kerry has been substituted in Table 1 from January 1982.
- The station at Ballysop, Campile, Co. Wexford in Table 1 now reads JFK Park, Co. Wexford.