



Summer 2019

(June, July, August)

Cool wet June, dry mild July, wet mild August

The dominant feature of the summer was mostly unsettled weather with low pressure. This was caused by persistent high pressure over Greenland and the far north leading to a negative North Atlantic Oscillation with Ireland positioned on the northern/cool side of the jet stream for most of the time. This was especially the case in June and August. However, during July, the jet stream was weaker leading to a slack flow with some warm settled weather at times. One repeating pattern of the summer, which reoccurred in the final quarter of each of the three summer months, was plumes of hot air being drawn northwards in a southerly airflow over Western Europe for several days each time giving record high temperatures to many parts of Western Europe. Ireland was on the western edge of these plumes of hot air to varying degrees, while still being influenced by low pressure in the Atlantic. There were several warm days and nights during each event before Atlantic weather fronts encroached from the west, bringing unsettled weather back across the island.

Rainfall: Above average in most places

The majority of rainfall totals were above their Long-Term Average (LTA). A few stations in the South and East had slightly below average rainfall. Percentage of rainfall values ranged from 89% (rainfall total of 215.5 mm) at Sherkin Island, Co Cork to 175% (rainfall total of 431.5 mm) at Claremorris, Co Mayo. Rainfall totals ranged from 184.0 mm (96% of its LTA) at Carlow (Oak Park) to 438.0 mm (160% of its LTA) at Athenry, Co Galway. The highest daily rainfall total was 49.5 mm at Claremorris, Co Mayo on the 19th July. The number of rain days ranged from 49 days at both Dublin (Phoenix Park) and Carlow (Oak Park) to 67 days at Belmullet, Co Mayo. The number of wet days¹ ranged from 31 days at Johnstown Castle, Co Wexford to 57 days at Knock Airport, Co Mayo. The number of very wet³ days ranged from 4 days at Dublin (Phoenix Park) to 15 days at both Athenry, Co Galway and Claremorris, Co Mayo.

Temperature: Warmer than average in most places

Nearly all mean air temperatures were above their Long-Term Average (LTA). Deviations from mean air temperature ranged from -0.3 °C (14.6 °C mean temperature) at Athenry, Co Galway to 0.7 °C (15.5 °C the highest mean temperature) at Dublin (Phoenix Park). Mean temperatures for the season were lowest at Knock Airport, Co Mayo with 13.6 °C (0.3 °C above its LTA). The highest maximum temperature was reported at Shannon Airport, Co Clare on the 27th June with a temperature of 28.4 °C. The lowest air minimum was recorded on the 15th June at Markree, Co Sligo with 1.1 °C while the lowest grass minimum was -2.1 °C reported at Dublin Airport on the 7th June. There was no air frost reported this season. Less than half of stations reported ground frost. The number of days with ground frost ranged from zero days at a few stations to 5 days at Claremorris, Co Mayo.

Sunshine: Highest in the South and East

Sunshine totals varied across the country for the season. Percentage of sunshine values ranged from 83% of Long-Term Average (LTA) (the season's lowest seasonal sunshine total of 333.2 hours) at Knock Airport, Co Mayo to 119% of Long-Term Average (LTA) (seasonal sunshine total of 550.6 hours) at Casement Aerodrome, Co Dublin. Sunshine totals were as much as 582.1 hours (117% of LTA) at Johnstown Castle*, Co Wexford. The highest number of daily sunshine hours recorded was 15.7 hours at Belmullet*, Co Mayo on the 14th July. The number of dull days² ranged from 8 days at Dublin Airport to 19 days at Knock Airport, Co Mayo.

Wind: Windiest in August

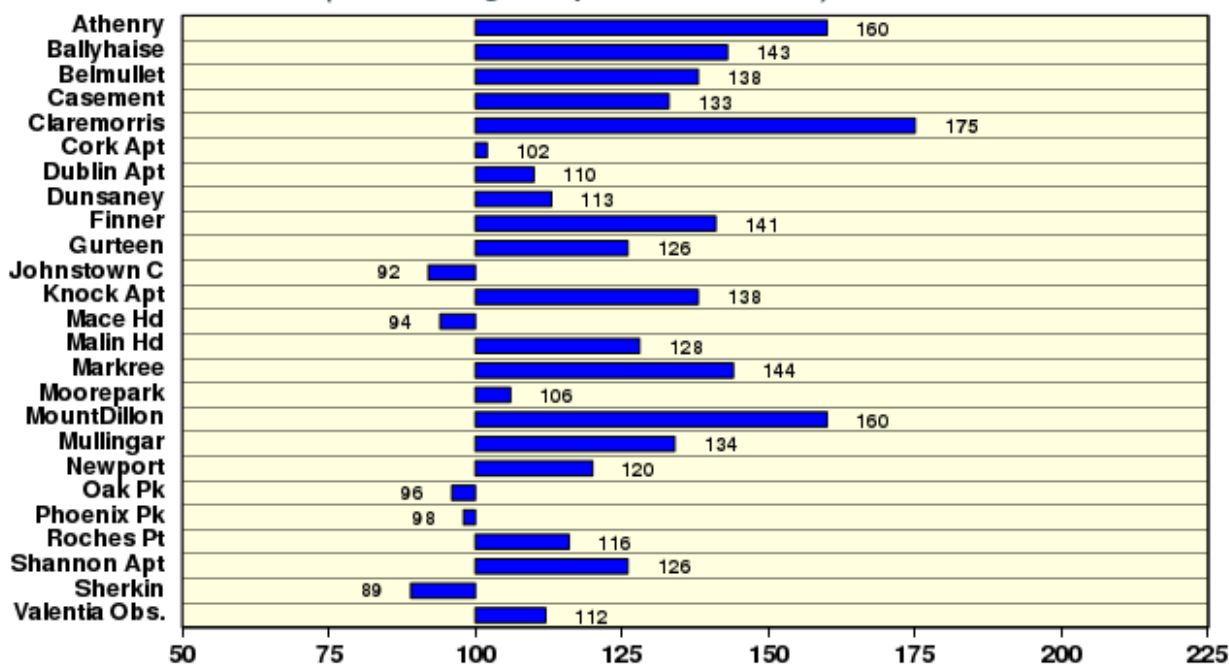
Seasonal mean wind speeds ranged from 5.7 knots (10.6 km/h) at Mullingar, Co Westmeath to 13.6 knots (25.2 km/h) at Mace Head, Co Galway. Gales were reported on the 2nd June, 14th Aug, 16th Aug, 21st Aug with strong gale force winds reported on the 9th Aug. The number of days with gales ranged from zero days at a few stations to 4 days at Mace Head, Co Galway. The number of days with strong gales ranged from zero days at most stations to 1 day at Malin Head, Co Donegal. Both the season's highest gust and 10-minute mean wind speed were reported at Malin Head, Co Donegal on the 9th Aug. The highest gust was 49 knots (91 km/h) while the season's highest 10-minute mean wind speed was 42 knots (78 km/h).

EXTREME VALUES FOR SUMMER AT SYNOPTIC STATIONS

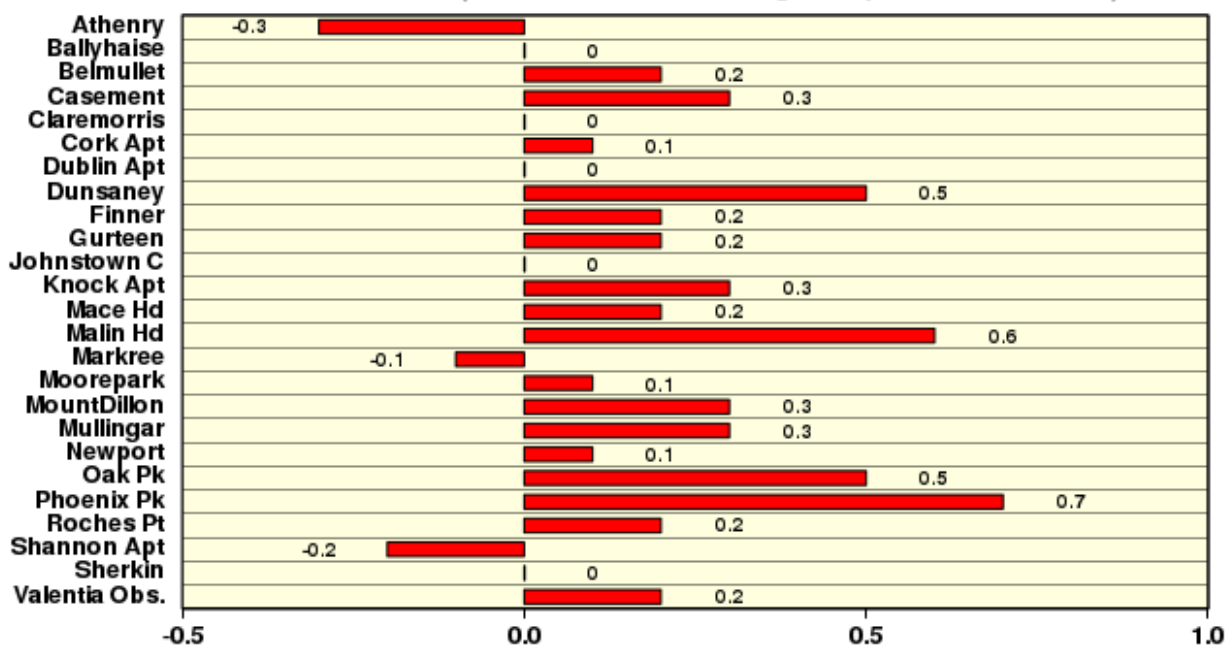
Rainfall	Highest seasonal total: 438.0 mm (160% of LTA) at Athenry, Co Galway Lowest seasonal total: 184.0 mm (96% of LTA) at Oak Park, Co Carlow Highest daily rainfall: 49.5 mm at Claremorris, Co Mayo on July 19th
Temperature	Highest seasonal mean temperature: 15.5°C at both Dublin (Phoenix Park)(0.7°C from LTA) and Shannon Airport, Co Clare (-0.2 from LTA) Lowest seasonal mean temperature: 13.6°C at Knock Airport, Co Mayo (0.3°C from LTA) Highest Air temperature: 28.4°C at Shannon Airport, Co Clare on June 27th Lowest air temperature: 1.1°C at Markree, Co Sligo on June 15th Lowest grass minimum: -2.1°C at Dublin Airport, Co Dublin on June 7th
Sunshine	Highest seasonal total: 582.1 hrs (daily mean 6.33 hrs/day) at Johnstown Castle*, Co Wexford Lowest seasonal total: 333.2 hrs (daily mean 3.62 hrs/day) at Knock Airport, Co Mayo Highest daily sunshine: 15.7 hrs at Belmullet*, Co Mayo on July 14th

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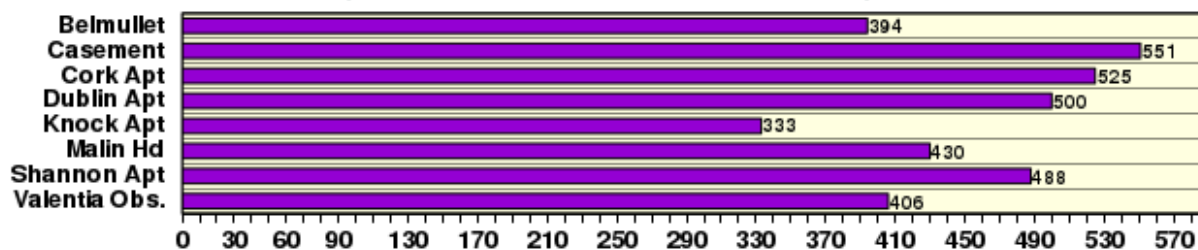
Rainfall (% of average for period 1981-2010) on whole season basis



Temperature (°C) (difference from average for period 1981-2010)



Sunshine (Number of seasonal sunshine hours)



Issued by the Climatology and Observations Division of Met Éireann on Wednesday September 4th 2019. This report is based on available preliminary data from 25 principal weather stations operated by Met Éireann. Synoptic station data is midnight to midnight UTC. Long-Term Averages (LTAs) and "average" refer to the period 1981-2010. ¹ 'Dry spell' is a period of 15 or more consecutive days to none of which is credited 1.0 mm or more of precipitation (i.e. daily tot < 1.0 mm). ² A wet day is a day with 1.0 mm or more of rainfall. ³ A dull day is a day with less than 0.5 hours of sunshine. ⁴ A very wet day is a day with 10.0 mm or more of rainfall. *Sunshine data is from the Autosol Network. LTAs for these sites are currently not used for comparison purposes. For more information, contact Met Éireann at 01-8064200 or e-mail: enq@met.ie