



# Autumn 2022

(September, October & November)

## Warm, wet and windy

Autumn 2022 continued the run of warmer than average seasons, being the sixth consecutive season where every synoptic station recorded above average mean temperatures. It was also very wet, with a number of locations having their wettest autumn on record. Troughs of low pressure to the west and southwest of Ireland dominated the weather during most of autumn. This was particularly the case for the first week of September, the second half of October and most of November. During these periods, rainfall amounts were well above average, focused in the East during September, widespread during October and in the Southwest during November. The airflow was predominantly between southerly and westerly, coming off a warmer than average North Atlantic Ocean, which kept the temperatures mostly above average. It was a relatively windy season overall, without being directly affected by any named storms. There was frequent thunderstorm activity during autumn, especially in the Midlands on 8th September, in the East on 19th October and in the South and Southwest on numerous occasions.

### Rainfall: Above average almost everywhere, wettest in the Southwest

Nearly all rainfall totals were above their 1981-2010 Long-Term Average (LTA) for the season. Percentage of seasonal rainfall values ranged from 95% (seasonal rainfall total of 350.0 mm) at Finner, Co Donegal to 180% (seasonal rainfall total of 538.1 mm) at Moore Park, Co Cork. Seasonal rainfall totals ranged from 271.7 mm (126% of its LTA) at Casement Aerodrome, Co Dublin to 786.5 mm (167% of its LTA) at Valentia Observatory, Co Kerry (*its wettest Autumn on record (record length 81 years)*). The highest daily rainfall total was 54.9 mm at Cork Airport on Sunday 16th Oct (*its highest daily value for autumn since 1995*). The number of rain days ranged from 53 days at Casement Aerodrome, Co Dublin to 78 days at Finner, Co Donegal. The number of wet days<sup>1</sup> ranged from 41 days at Dublin Airport, Co Dublin to 69 days at Valentia Observatory, Co Kerry. The number of very wet days<sup>3</sup> ranged from 7 days at both Phoenix Park and Casement Aerodrome, Co Dublin to 35 days at Valentia Observatory, Co Kerry. Along with Valentia seven other stations had their wettest autumn on record. These were Oak Park, Co Carlow with 399.8 mm (161% of its LTA), Mace Head, Co Galway with 484.0 (119% of its LTA), Moore Park, Co Cork with 538.1 (180% of its LTA), Ballyhaise, Co Cavan with 459.1 mm (164% of its LTA), Gurteen, Co Tipperary with 373.4 mm (139% of its LTA), Mount Dillon, Co Roscommon with 390.8 mm (133% of its LTA) and Cork Airport, Co Cork with 598.6 mm (170% of its LTA) (record lengths ranging between 8 and 60 years).

### Temperature: Above average everywhere for the sixth consecutive season

All mean air temperatures across the country were above their LTA for the season. Deviations from mean air temperature for the season ranged from 0.8 °C (10.8 °C mean temperature) at Markree, Co Sligo to 1.5 °C (11.7 °C mean temperature) at Phoenix Park, Co Dublin. Mean temperatures for the season ranged from 10.2 °C (1.2 °C above its LTA) at Knock Airport, Co Mayo to 13.1 °C (1.1 °C above its LTA) at Sherkin Island, Co Cork (*its warmest autumn since 2007*). The season's lowest temperatures were recorded on Saturday 19th Nov with the lowest air minimum reported at Athenry, Co Galway with a temperature of -1.8 °C and the lowest grass minimum reported at Mount Dillon, Co Roscommon with -6.5 °C. The highest maximum was reported on Thursday 1st Sep at Newport, Co Mayo with a temperature of 22.7 °C. More than half of stations reported ground frost. The number of days with ground frost ranged from zero days at Malin Head, Co Donegal to 29 days at Mount Dillon, Co Roscommon. Less than half of stations reported air frost. The number of days with air frost ranged from zero days at a few stations to 7 days at Mount Dillon, Co Roscommon. Valentia Observatory, Co Kerry also had its warmest autumn since 2007. Cork Airport had its warmest autumn since 2001 and Johnstown Castle, Co Wexford had its warmest autumn since 2006. Roches Point, Co Cork had its warmest autumn on record (length 19 years).

### Sunshine: Sunniest in the East

All available sunshine totals were above their LTA for the season. Percentage of seasonal sunshine values ranged from 103% (seasonal sunshine total of 277.8 hours) at Shannon Airport, Co Clare to 114% (the season's highest seasonal sunshine total of 333.0 hours) at Casement Aerodrome, Co Dublin. Seasonal sunshine totals were lowest at Belmullet, Co Mayo with 252.7 hours (no LTA comparison\*). The highest number of daily sunshine hours recorded this season was 12.3 hours at Malin Head, Co Donegal on Saturday 10th Sep. The number of dull days<sup>2</sup> ranged from 17 days at Casement Aerodrome, Co Dublin to 27 days at Valentia Observatory, Co Kerry.

### Wind: Strong gales reported in all three months, storm force winds reported in November

Seasonal mean wind speeds ranged from 6.2 knots (11.5 km/h) at Moore Park, Co Cork to 16.4 knots (30.4 km/h) at Mace Head, Co Galway (*its strongest mean winds in autumn since 2011*). There were numerous days with gales and strong gales with up to storm force winds on Wednesday 23rd Nov. The number of days with up to strong gales ranged from zero days at a few stations to 5 days at Mace Head, Co Galway. The number of days with storms force winds was 1 day at Mace Head, Co Galway. The season's highest gust was reported at Roche's Point, Co Cork on the 24th Nov with 65 knots (120 km/h). The season's highest 10-minute mean wind speed was 48 knots (89 km/h) at Mace Head, Co Galway on Wednesday 23rd Nov. Along with Mace Head ten other stations had their strongest mean wind for autumn since 2011. Roches Point, Co Cork had its strongest mean wind for autumn on record (length 19 years).

## EXTREME VALUES FOR AUTUMN AT SYNOPTIC STATIONS

### Rainfall

Highest seasonal total: 786.5 mm at Valentia Observatory, Co Kerry (167% of its LTA) (*its wettest Autumn on record (record length 81 years)*)

Lowest seasonal total: 271.7 mm at Casement Aerodrome, Co Dublin (126% of its LTA)

Highest daily rainfall: : 54.9 mm at Cork Airport, Co Cork (40% of its monthly LTA) on Sun 16th Oct (*its highest daily value for autumn since 1995*)

### Temperature

Highest mean seasonal temperature: 13.1°C at Sherkin Island, Co Cork (1.1°C above its LTA) (*its warmest autumn since 2007*)

Lowest mean seasonal temperature: 10.2°C at Knock Airport, Co Mayo (1.2°C above its LTA)

Highest air temperature for the season: 22.7°C at Newport, Co Mayo (5.5°C above its monthly LTA) on Thu 1st Sep

Lowest air temperature for the season: -1.8°C at Athenry, Co Galway (6.2°C below its monthly LTA) on Sat 19th Nov

Lowest grass minimum for the season: -6.5°C at Mount Dillon, Co Roscommon on Sat 19th Nov

### Sunshine

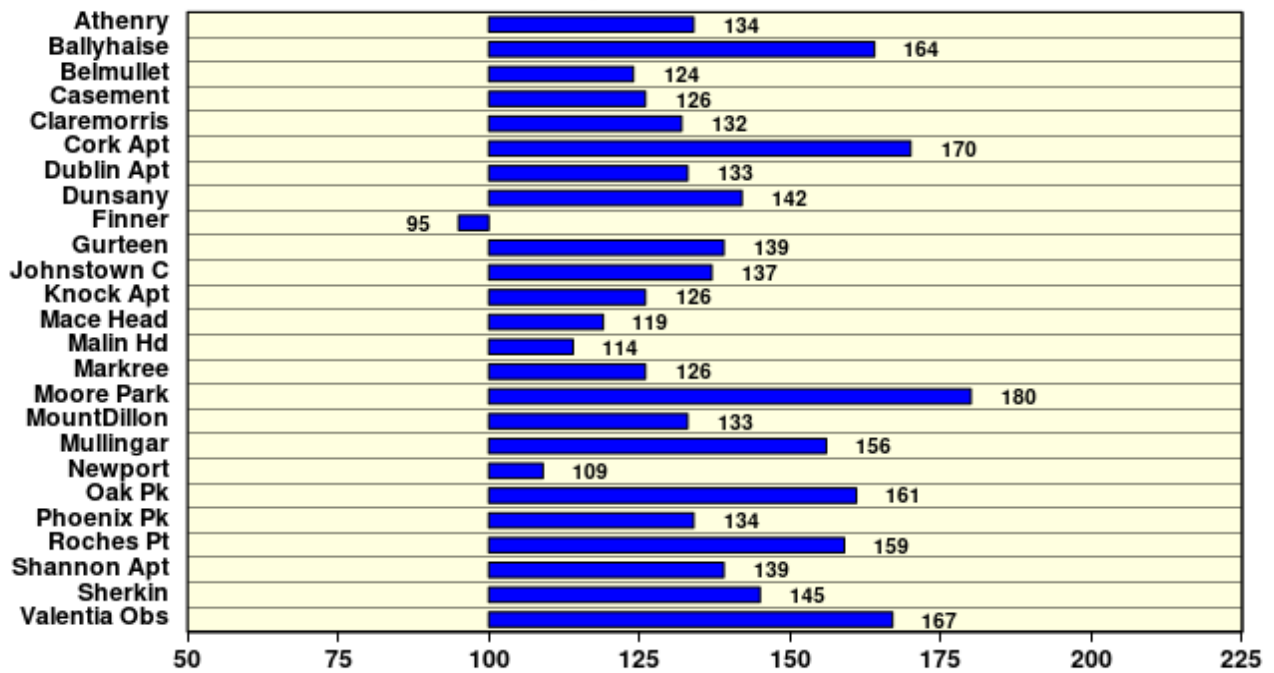
Highest seasonal total: 333.0 hrs (daily mean 3.66 hrs/day) at Casement Aerodrome, Co Dublin

Lowest seasonal total: 252.7 hrs (daily mean 2.78 hrs/day) at Belmullet, Co Mayo

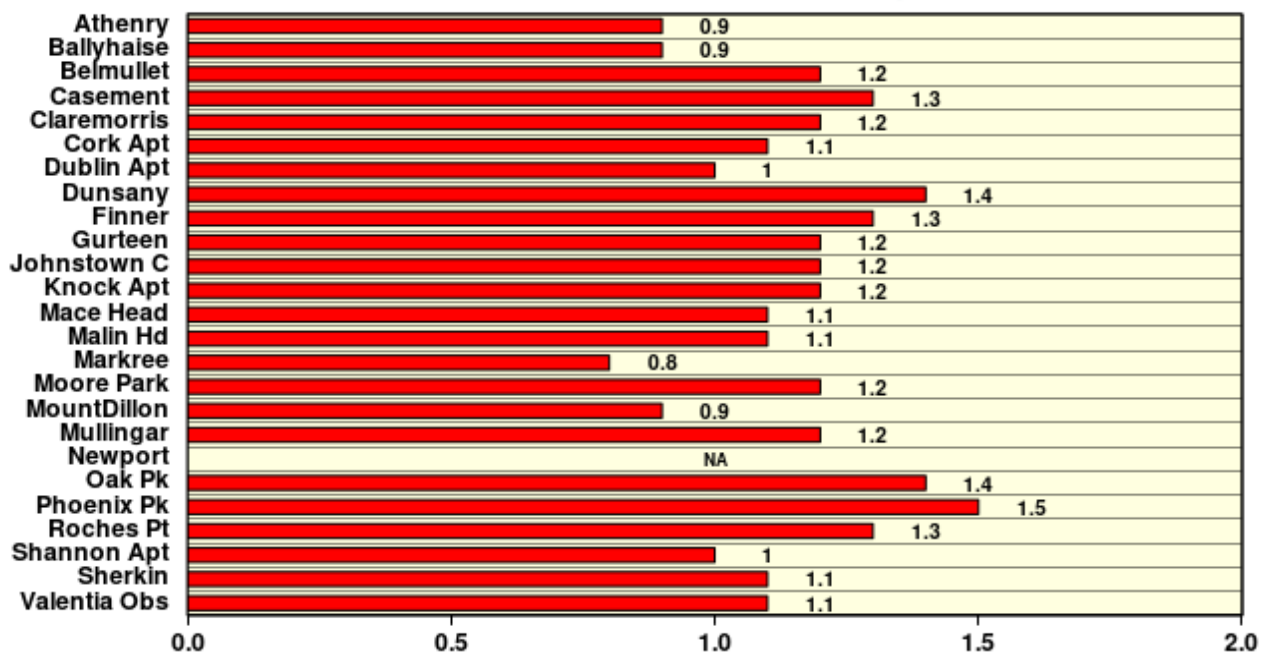
Highest daily sunshine for the season: 12.3 hours at Malin Head, Co Donegal on Sat 10th Sep

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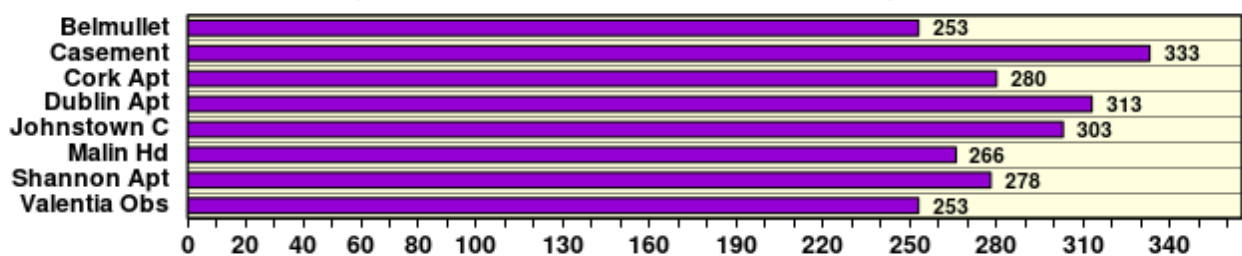
### Rainfall (% of average for period 1981-2010) on whole season basis



### 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 Monday 5th December 2022. 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. <sup>1</sup>A wet day is a day with 1.0 mm or more of rainfall. <sup>2</sup>A dull day is a day with less than 0.5 hours of sunshine. <sup>3</sup>A very wet day is a day with 10.0 mm or more of rainfall. <sup>4</sup>An absolute drought is a period of 15 or more consecutive days to none of which is credited 0.2 mm or more of precipitation. <sup>5</sup>A partial drought is a period of at least 29 consecutive days, the mean daily rainfall of which does not exceed 0.2 mm. <sup>6</sup>A 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). <sup>7</sup>A heatwave occurs where there are 5 consecutive days or more with maximum temperature over 25°C (that is, a daily maximum screen air temperature > 25°C). \*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