

Spring 2020 (March, April, May)

Very dry, especially in the east, sunny everywhere, warm for most

High pressure dominated through most of spring 2020, which led to very dry conditions, especially in the East. The first half of March saw low pressure to the north with Atlantic weather fronts crossing the country in a cool westerly airflow. Pressure rose steadily from mid-month and apart from stalled fronts giving some rain in the North and West, the second half of March was mostly dry and cool. The mainly dry and settled weather continued for most of April with drought and dry spell conditions reported at many locations across the country. A shift in the position of the high-pressure system to the northeast during April saw an easterly airflow off the continent dominate, which brought warmer weather overall, especially in the West. Low pressure brought rain countrywide at the end of April, which ended the drought and dry spell conditions. High pressure soon re-established control at the beginning of May, this time to the northwest of Ireland, which meant the first half of May was cool with an arctic blast coming south over the country on the 10th. The second half of May saw high-pressure develop to the south of Ireland and drift to the east, which brought warmer weather, culminating in a very warm tropical continental air mass feeding in over the country from the southeast towards the end of the month.

Rainfall: Very dry, driest on record for Dublin and Meath

All rainfall totals across the country were below their Long-Term Average (LTA) for the season. Absolute drought⁴, partial drought⁵ and dry spell⁶ conditions were reported at many stations across the country during the season. Percentage of seasonal rainfall values ranged from 31% (the season's lowest seasonal rainfall total of 52.6 mm) at Phoenix Park, Co Dublin *(its driest spring on record (record length 170 years)* to 85% (seasonal rainfall total of 204.7 mm) at Athenry, Co Galway. Seasonal rainfall totals were as much as 258.4 mm (78% of its LTA) at Newport, Co Mayo. The highest daily rainfall total was 31.0 mm at Shannon Airport, Co Clare on the 9th Mar. The number of rain days ranged from 27 days at a few stations to 47 days at Newport, Co Mayo. The number of wet days¹ ranged from 16 days at a few stations to 38 days at Newport, Co Mayo. The number of very wet days³ ranged from zero days at Phoenix Park, Co Dublin to 7 days at a few stations. Along with Phoenix Park, three other stations had their driest spring on record, including Dublin Airport, Co Dublin with 54.1 mm (33% of its LTA) (record length 78 years), Dunsany, Co Meath with 80.6 mm (43% of its LTA) (record length 11 years) and Casement Aerodrome, Co Dublin with 62.5 mm (39% of its LTA) (record length 56 years). Mullingar, Co Westmeath had its driest spring for 67 years with 113.0 mm (53% of its LTA), Markree, Co Sligo had its driest spring for 45 years with 133.7 mm (50% of its LTA), Gurteen, Co Tipperary had its driest spring for 64 years with 118.6 mm (59% of its LTA) and Belmullet, Co Mayo had its driest spring for 10 years with 170.3 mm (70% of its LTA).

Temperature: Above average almost everywhere

Nearly all mean air temperatures were above their Long-Term Average (LTA) for the season. Deviations from mean air temperature for the season ranged from -0.1 °C (8.4 °C, the season's lowest mean temperature) at Dublin Airport, Co Dublin to 1.0 °C (9.5 °C mean temperature) at Phoenix Park, Co Dublin. Mean temperatures were as much as 10.2 °C (0.9 °C above its LTA) at Newport, Co Mayo. The season's lowest air temperature was recorded on the 5th Mar at Dunsany, Co Meath with a temperature of -4.2 °C and the lowest grass minimum for the season was recorded at Mount Dillon, Co Roscommon on the 20th Mar with -10.1 °C. The highest maximum was reported on the 30th May at Mount Dillon, Co Roscommon with a temperature of 26.8 °C. All stations reported ground frost during the season. The number of days with ground frost ranged from 7 days at Sherkin Island, Co Cork to 50 days at Mount Dillon, Co Roscommon. More than half of stations reported air frost. The number of days with air frost ranged from zero days at a few stations to 22 days at Mount Dillon, Co Roscommon with 26.8 °C on the 28th May (record length 70 years), Mount Dillon, Co Roscommon with 26.3 °C on the 28th May (record length 71 years) and Casement Aerodrome, Co Dublin with 25.7 °C on the 28th May (record length 56 years).

Sunshine: Very sunny, sunniest spring on record for Dublin

All available sunshine totals were above their Long-Term Average (LTA) for the season. Percentage of seasonal sunshine values ranged from 117% (seasonal sunshine total of 534.7 hours) at Cork Airport, Co Cork to 138% (seasonal sunshine total of 608.2 hours) at Casement Aerodrome, Co Dublin . Seasonal sunshine totals were highest at Johnstown Castle*, Co Wexford with 624.5 hours (no LTA comparison). Seasonal sunshine totals were lowest at Valentia Observatory*, Co Kerry with 530.4 hours (no LTA comparison). The highest number of daily sunshine hours recorded this season was 15.3 hours at Johnstown Castle*, Co Wexford on the 31st May. The number of dull days² ranged from 9 days at Malin Head, Co Donegal to 17 days at Cork Airport, Co Cork. Dublin had its sunniest spring on record with both Casement Aerodrome (record length 56 years) and Dublin Airport (record length 78 years) (seasonal sunshine total of 623.8 hours) recording their sunniest spring on record.

Wind: Gales and strong gales reported

Seasonal mean wind speeds ranged from 6.2 knots (11.5 km/h) at Moore Park, Co Cork to 14.1 knots (26.1 km/h) at Malin Head, Co Donegal. Gales were reported on numerous days with up to strong gales reported on the 1st Mar, 12th Mar, 22nd and 23rd May. The number of days with gales ranged from zero days at a few stations to 9 days at Mace Head, Co Galway. The number of days with strong gales ranged from zero days at Phoenix Park, Co Dublin to 3 days at both Mace Head, Co Galway and Malin Head, Co Donegal. Both the season's highest gust and 10-minute mean wind speed were reported on the 22nd May when the storm system containing remnants of post-tropical storm Arthur affected Ireland. The highest gust was 64 knots (118 km/h) reported at Newport, Co Mayo while the season's highest 10-minute mean wind speed was 47 knots (87 km/h) at Malin Head, Co Donegal.

	EXTREME VALUES FOR SPRING AT SYNOPTIC STATIONS
Rainfall	Highest seasonal total: 258.4 mm at Newport, Co Mayo (78% of its LTA)
	Lowest seasonal total: 52.6 mm at Phoenix Park, Co Dublin (31% of its LTA) (its driest spring on record (record length 170 years)
	Highest daily rainfall: 31.0 mm at Shannon Airport, Co Clare (39% of its monthly LTA) on Mon 9th Mar
Temperature	Highest mean seasonal temperature: 10.2°C at Newport, Co Mayo (0.9°C above its LTA)
	Lowest mean seasonal temperature: 8.4°C at Dublin Airport, Co Dublin (0.1 below its LTA)
	Highest air temperature for the season: 26.8°C at Mount Dillon, Co Roscommon on Sat 30th May
	Lowest air temperature for the season: -4.2°C at Dunsany, Co Meath on Thu 5th Mar
	Lowest grass minimum for the season: -10.1°C at Mount Dillon, Co Roscommon on Fri 20th Mar
Sunshine	Highest seasonal total: 624.5 hrs (daily mean 6.79 hrs/day) at Johnstown Castle*, Co Wexford
	Lowest seasonal total: 530.4 hrs (daily mean 5.77 hrs/day) at Valentia Observatory*, Co Kerry
	Highest daily sunshine for the season: 15.3 hours at Johnstown Castle*, Co Wexford on Sun 31th May



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

currently not used for comparison purposes. For more information, contact Met Éireann at 01-8064200 or e-mail: eng@met.ie



Spring Global (March, April, May 2020)

Surface air temperature: Boreal Spring 2020 (March, April, May)

Boreal spring was marked by highly anomalous temperatures over parts of Siberia, which reached close to 10°C above the 1981-2010 average. Relatively warm but less exceptional conditions extended around much of the Arctic. South America, Africa and Antarctica were for the most part warmer than average. North America, southern Asia and Australia saw a more equal mix of regions of above- and below-average temperature. Relatively warm temperatures predominated over sea.

Surface air temperature anomaly for March to May 2020



Surface air temperature anomaly for the boreal spring from March 2020 to May 2020 relative to the average for 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <u>https://climate.copernicus.eu/surface-air-temperature-may-2020</u>

Temperature: Spring European surface air temperature

Europe was generally warmer than average in the west, south and far east, and close to or a little colder than average over parts of Scandinavia and central Europe. France experienced its second warmest spring on record. The March-May average temperature for Europe was 0.7°C above the 1981-2010 norm, a lower value than recorded for the six preceding years. The warmest spring, which occurred in 2014, had an average temperature that was 1.5°C higher than normal.



European surface air temperature anomaly for spring (MAM)

Boreal spring (March to May) averages of European-mean surface air temperature anomalies from 1979 to 2020, relative to 1981-2010. Data source: ERA5. Credit: Copernicus Climate Change Service/ECMWF. <u>https://climate.copernicus.eu/surface-air-temperature-may-2020</u>