

MAIDENHEAD METEOROLOGICAL OBSERVATIONS FOR 2024

Overall, 2024 was a milder, wetter and duller than normal. It was cooler overall than in 2022 and 2023 and the incidence of air frost was much less than usual (18 days was the fewest since 2002). It was the wettest year locally since 1903 (when 1036 mm fell) but only slightly wetter than in 2000. It was the dullest year since 2021. There were only two days with any form of snowfall and no lying snow at 0900 GMT.

January was sunnier than normal (the sunniest since 2015). The mean temperature and total rainfall were close to normal. The only snowfall of the winter was a brief shower on the 8th. Conditions were anticyclonic for much of the month after a rather wet 1st to 5th, with the 6th to the 19th had no measurable rainfall.

The warmest February on record locally since at least 1860. It was 0.4 degC warmer than the February of 1990 in Boyn Hill, the previous warmest February in the station record, and there were only 2 air frosts. It was the dullest February since 2011 and the wettest February since 1951 (when 125 mm fell locally). 541 mm of rain has fallen in the last six months - (normal is 381 mm).

March was another mild month, but slightly cooler than March 2019. There were only 2 air frosts and no snowfalls. The lowest average March air pressure since 2018 helped to make this a wet month, but not as wet as March 2023. The cloud and rain helped make this a dull March and the soil state was frequently classified as 'wet'.

A mild and wet April. Daytime temperatures were average for the month - due to a cool spell during the period 20th-28th, while the rainfall total was reflection of the heavy fall (26.3 mm) on the 27th, which was the wettest April day locally since 1991. Overall, it was the warmest April for four years due to mild nights, while it was slightly drier than April 2023. Soil temperatures under grass peaked around mid-month.

Then came the warmest May since 2018 although 27.6C was only the highest May temperature for four years. The 100 cm depth mean soil temperature was the highest since 2011 for May. The sunshine total was less than in 2023 but slightly more than in 2022. Rainfall was the most in May for three years - although 7 days recorded 5 mm or more, the greatest number in May (with 2006) since 8 days in 2002.

It was the coolest June since 2013 due to a run of cool nights in the second and third weeks. It was also the driest June since 2018, the soil turning very dry during the second half of the month under warm conditions. Sunshine exceeded 240 h for the third consecutive June and there were no sunless days. SW, W and NW winds dominated the month.

July was slightly cooler than normal overall, but ended with a 28C+ heatwave. It was a wetter than normal July, but not as wet as in 2023; the 5th was the wettest July day (27.4 mm) since 2017 with rain falling for 12 hours. The sunshine total was very close to normal but did not pass the 200 h mark; it was duller than in June and only slightly sunnier than May 2024.

August was slightly warmer, sunnier and much drier than normal, with winds predominantly from the SW quarter. It was the warmest and sunniest August for two years but the driest since 2003 with most of the rain falling in just two days (23rd-24th). Overall, it was the coolest summer since 2015 although the mean temperature almost normal. It was the driest summer since 2022.

September was the wettest of any calendar month of any locally since before 1859, with the wettest day since July 1901. Five days with thunder was the highest count in September since before 1953. On the 22nd-23rd 69.7 mm of rain fell in just four hours with 93.2 mm falling in the 24 hours ending 0900 GMT/23rd. Temperatures were slightly above average due to mild nights, while sunshine amounts were lower than normal.

October was slightly warmer and drier than normal, but rather dull at times. It was the coolest October for four years with 20C not being reached. But there was only one ground frost. It was also the dullest October for four years, but the driest since 2018 - and the wettest day saw only 12.8 mm (the lowest such October value since 2017). The final 13 days were quite dry.

November was a slightly duller and drier month than normal, due largely to high pressure in the first half of the month that led to nine sunless days 1st-9th. After the 17th there were four days each with over 10 mm of rain. The month was cooler than normal by day, but nights were slightly warmer than normal. The average pressure was the highest in November since 2007.

December was a mild month (but not as mild as in 2023), rather dull (but sunnier than December 2023) and slightly drier than normal (the driest since 2016). There were 17 days without sunshine (the most in December since 19 in 2010) and no days with air frost (for the first time in December since 2015) or snowfall. The average air pressure was the highest for December since 2017.

	2024	Climatological normal	Notes
<i>Air temperature (degC)</i>			
Mean maximum	16.1	15.5	0.3 degC cooler than in 2023
Mean minimum	8.2	7.2	The highest value since before 1989
Mean	12.1	11.4	0.1 degC cooler than in 2023
Highest maximum	32.8	31.9	
Lowest maximum	2.8	0.9	
Highest minimum	19.5	18.9	This occurred on 2nd September
Lowest minimum	-7.1	-5.9	
No. of days with minimum below -5C	5	1.9	
No. of days with maximum 25C or more	27	29.0	The lowest count since 2021
No. of days with maximum below 0C	0	0.6	
No. of days with minimum 15C or more	28	23.7	The lowest count since 2017
<i>Grass temperature (degC)</i>			
Lowest minimum	-10.1	-8.9	
Mean grass minimum	5.5	4.7	The highest value since 2006
<i>Soil temperature (degC)</i>			
5cm mean	10.6	10.0	
10cm mean	11.0	10.2	
20cm mean	11.6	11.1	
30cm mean	12.2	11.6	The highest value since 2022
50cm mean	12.0	11.4	The highest value since 2022
100cm mean	12.2	11.5	The highest value since 2022
5cm maximum	20.0		
5cm minimum	-1.1		
10cm maximum	20.2		
10cm minimum	0.0		
20cm maximum	20.6		
20cm minimum	1.0		
30cm maximum	20.1		
30cm minimum	2.5		
50cm maximum	19.0		
50cm minimum	3.1		
100cm maximum	17.6		
100cm minimum	6.2		
<i>Sunshine (hr)</i>			
Mean daily sunshine amount	4.24	4.34	
Total sunshine	1550.2	1585.2	The lowest total since 2021
Maximum daily sunshine	15.0	14.8	
Number of sunless days	70	65.3	The highest count since 74 in 2010
No. of days with over 12hr	22	18.1	
<i>Precipitation (mm)</i>			
Total fall	898.1	678.0	The wettest year since 1903
Highest daily total	93.2	35.7	

	2024	Climatological normal	Notes
No. of days with 0.2mm or more	181	160.7	
No. of days with 1.0mm or more	128	117.5	
No. of days with 5.0mm or more	55	46.4	
<i>Number of days with</i>			
Snow or sleet falling	2	10.3	The fewest snow days since 2020
50% snow cover on round at 0900GMT	0	3.5	The lowest count since 0 days in 2020
Hail or ice pellets falling	5	5.3	
Thunder heard	12	11.3	
Fog at 0900GMT	4	7.5	
Air frost	18	37.7	The lowest count since 15 days in 2002
Ground frost	57	85.7	The lowest count since before 1989
Gale	0	0.2	
<i>Air pressure</i>			
Mean at 0900GMT	1014.7	1015.9	The highest value since 2022
<i>Miscellaneous</i>			
Mean relative humidity at 0900GMT	79	81.0	
Number of hours with rain	558.4	555.5	Slightly less than in 2023
Number of hours with air frost	160.7	247.4	The lowest total since 137.4 h in 2020
Most hours of rain in a day	14.1	17.2	
Mean cloud cover at 0700GMT (eighths)	6.0	5.7	
Mean wind speed at 0700GMT (knots)	3.9	4.5	
Total Piche evaporation (ml)	514.6	563.9	
Greatest daily evaporation (ml)	4.5	5.5	

Climatological normals refer to 1991-2020.

Monthly reports can be found at <https://www.met.reading.ac.uk/~brugge/mhdweather.html>