



ROTHAMSTED  
RESEARCH

## Rothamsted Meteorological Data

### Monthly and Annual Summary 2011

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**Description:** Contains the monthly and annual summaries for daily weather data collected at Rothamsted Met Station 2011. Each month includes a general summary and summaries of rainfall (mm), sunshine total hours, temperature mean, maximums and minimums (°C) and numbers of ground frosts;

Pages 1- 12 Weather summaries for months January-December 2011.

Page 13 Weather summary for year 2011.

**Site:** Rothamsted Meteorological Station, Rothamsted Research, West Common, Harpenden, Hertfordshire, AL5 2JQ, UK. Latitude 51.8066 N, Longitude -0.3602 E, 128m asl.

#### Related Resources:

- Month and Annual Summaries for current and other years:  
<http://www.era.rothamsted.ac.uk/Met/monthly>
- 30-year Mean Weather Data for Rothamsted Met Station 1981-2010:  
[10.23637/OARES30YrMeans8180](https://doi.org/10.23637/OARES30YrMeans8180)

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## Weather Summary for January 2011.

January was a damp and overcast month with mean temperatures close to average for this time of year. The temperature extremes however were relatively high.

Rainfall was above the average with 84.6 mm (+14.6). We had 21 days with 0.2mm or more of rain and 7 had more than 5.0mm. The most on one day was 16.6 mm on the 17th.

Sunshine was below average with 45.4 hours (-16.6); the most was 7.8 hours on the 31<sup>st</sup>. We had 11 days no sunshine at all.

January mean temperatures were close to average with mean maximum and minimums of 6.0°C (-0.68) and 1.6°C (+0.4) respectively. The highest day temperature was 12.73°C on the 13<sup>th</sup>. The lowest minimum was -2.771°C on the 21<sup>st</sup>.

We had 12 air frosts and 16 ground frosts.

N.B. 30 year averages now 1981-2010. (Previously 1971-2000)

## Weather Summary for February 2011.

February was mild and cloudy with above average precipitation.

Rainfall was above average at 56.8mm (+6.66). The most recorded was 10 mm on day 10. We had 21 days with over 0.2mm, and 4 days exceeding 5.0mm.

Sunshine was below average at 48.7hrs (-31.56). We had 9 days without any sunshine; the most was 8.1hrs on the 8<sup>th</sup>.

The mean maximum and the mean minimum temperatures were both above average with 8.8°C (+1.89) and 3.6°C (+2.72) respectively. The lowest minimum was -2.6°C on the 1<sup>st</sup>, and the highest maximum was 13.0°C on the 25<sup>th</sup>.

We had 3 air frosts and 8 ground frosts.

## Weather Summary for March 2011.

March 2011 was sunny and especially dry. Average temperatures were close to the March 30 year average.

Rainfall was 40.8 mm below average, with 10 mm recorded. We had 12 days with 0.2 mm or more of rain, and no days with more than 5 mm. The most recorded was 4.2 mm on the 30<sup>th</sup>. It was the 8<sup>th</sup> driest March in our records, which began in 1893.

Sunshine was above average at 149.6 hrs (average for March is 114.9); the most recorded was 11.1 hours on the 19<sup>th</sup>. There were 3 days when the sun didn't shine at all.

The mean maximum and minimum temperatures were close to average at 10.7°C (+0.85) and 2.4°C (-0.32) respectively; the highest maximum temperature was 16.8°C on the 25<sup>th</sup> and the lowest minimum was -3.9°C on the night of the 8<sup>th</sup>.

We had 7 air frosts and 15 ground frosts.

## Weather Summary for April 2011.

April 2011 was another warmer, sunnier and drier than average April. The high sunshine hours made this the 5<sup>th</sup> sunniest April since 1891. Also it ranked as 4<sup>th</sup> driest since 1890. Each day the temperatures reached double figures and the warmest day was second warmest on record reaching the mid 20s. To top this, the mean of the maximum daytime temperatures was the highest on record.

Rainfall was 5.2 mm, 49.86 mm below average. We had 4 days with 0.2 mm or more of rain, and no days with more than 5mm. The wettest days were the 3<sup>rd</sup> and 4<sup>th</sup> both with 2 mm.

Sunshine was 73.14 hours above average with 234.4 hours; the most was 12.9 hours on the 30<sup>th</sup>. There was only one day when the sun didn't shine.

The average maximum and minimum temperatures were both above average with, 17.6 ° (+4.98) and 6.7 °C (+2.67) respectively. The warmest day reached 25.3 °C on the 23<sup>rd</sup>, and the coldest night on the 13<sup>th</sup> was 1.6 °C, mild for April.

We had 0 air frosts and 4 ground frosts.

## Weather Summary for May 2011.

May was generally a warm dry month with occasional rain showers. Temperatures were above average and rainfall below average.

Rainfall this May was 23.6mm, which is 31.09mm below the mean. We had 11 days with 0.2mm or more of rain and only 1 day with more than 5.0mm. The most was 5.2mm on the 30th May.

Sunshine was also above average at 237.6hrs (43.01 hrs above average); the most was 13.6 hours on the 4th.

The average maximum temperature was above the mean for May at 17.4°C (+1.32°C). The minimum was also above the mean with 7.6°C (+0.72°C). The warmest day was 23.2°C on the 6th; the lowest temperature was 0.4°C on the night of the 4<sup>th</sup>.

We had four ground frosts and zero air frosts.

## Weather Summary for June 2011.

After 3 months with below average rainfall June provided some relief with above average rainfall figures. Even with this extra rain June remained relatively sunny but with mean temperatures very slightly below the average.

Rainfall was 83mm, which is 29.7mm above the mean. We had 16 days with 0.2mm or more of rain, and 6 of these had more than 5.0mm. The most was 17.8mm on the 5th.

Sunshine was above average with 214.3hrs (average for June is 198.2); the most was 12 hours on the 26<sup>th</sup>.

The mean maximum temperature was below average at 19°C (-0.14) and the mean minimum was below average at 9.5°C (-0.21). The highest maximum recorded was 29.2°C on the 27<sup>th</sup> and the lowest minimum was 4.2°C on the 12<sup>th</sup>.

1 ground frost was recorded.

## Weather Summary for July 2011.

July was relatively cloudy and cool, with below average rainfall.

Rainfall was below average, with 44.6 mm, which is 5.27 mm below the mean. We had 14 days with 0.2mm or more of rain, and 3 of these had more than 5 mm. The greatest rainfall was 13.4 mm recorded on the 16<sup>th</sup>.

Sunshine was 34 hours below average with 171.2hrs. The most was 12.7 hours on the 24<sup>th</sup>. There was sunshine recorded on every day.

The average maximum temperature was below average at 19.9°C (-1.83) and the average minimum was below average at 10.9°C (-1.02). The warmest day reached 24.1°C on the 5<sup>th</sup>. The lowest minimum temperature (coldest night) was 6.1°C on the 30<sup>th</sup>.

We had no air or ground frosts.



## Weather Summary for August 2011.

This August was another relatively cloudy, cool and wet August.

Rainfall was above average with 81.2mm, (+17.47mm). We had 20 days with 0.2mm or more of rain, 9 of which had more than 5.0 mm; the most was 21.8 mm on the 18<sup>th</sup>.

The mean maximum temperature was below average with 19.9°C (-1.67) and the mean minimum was below average with 11.7°C (-0.14). The highest temperature was 27.6°C on the 3<sup>rd</sup>, and the lowest (night) temperature was 7.5°C on the 10<sup>th</sup>.

Sunshine was below average at 141.2hrs which is 55.0 hrs below average. There were 2 days where the sun didn't shine, and the sunniest day was the 9<sup>th</sup> with 10.1 hours.

## Weather Summary for September 2011.

September was relatively sunny, warm and dry. The end of the month was especially warm with the last day being the 4<sup>th</sup> warmest of the year so far.

Rainfall was 38.4 mm, which is 19.22 mm below average. We had 14 days with 0.2 mm or more of rain and 2 with over 5 mm. The most was 12.21 mm on the 4<sup>th</sup>.

Sunshine was 160.3 hrs which is 16.88 hrs above average. We had only 1 day with no sun and the most was 9.8 hours on the 30<sup>th</sup>.

The mean maximum and minimums were both above average at 19.6°C (+1.28) and 11.1°C (+1.14) respectively. The highest (daytime) temperature was 27.2°C on the 30<sup>th</sup> and the lowest (night) temperature was 5.6°C on the 18<sup>th</sup>.

There were no ground frosts.

## Weather Summary for October 2011.

October 2011 was considerably dryer, sunnier and warmer than an average October and produced a record breaking maximum temperature.

Rainfall was 56.5 mm below average with 25.2 mm collected. We had 11 days with 0.2 mm or more of rain and 2 with over 5.0 mm. The most was 5.5 mm which fell on the 5<sup>th</sup> and 26<sup>th</sup>. It was the driest October since 1985.

Sunshine was above average with 143.2 hrs; (average for October is 111.7) the most was 9.7 hours on the 2<sup>nd</sup>. There were 3 days without any sun at all. It was the 9<sup>th</sup> sunniest October on record; the sunniest was 1997 with 163.9 hrs.

October temperatures were above average with a mean maximum of 16.6°C (+2.6); the 5<sup>th</sup> highest on our records. The mean minimum was 9.0°C (+1.8) which was the 6<sup>th</sup> highest on our records. The highest temperature was 26.7°C on the 1<sup>st</sup> and the highest recorded October maximum (since 1878); the lowest was 1.2°C on the 16<sup>th</sup>.

4 ground frosts were recorded.

## Weather Summary for November 2011.

After a wet start November 2011 turned out to be mild and dry with slightly below average sunshine.

Rainfall was below average with 36.4 mm, which is 40.19 mm below the mean. We had 15 days with 0.2mm or more of rain, and 1 day with over 5mm. On this day, the 3<sup>rd</sup> of November, over half the month's rain fell with 19.1 mm making it the wettest day by far!

Sunshine was below average with 68.8hrs (-1.92) the most was 6.1 hours on the 25<sup>th</sup>. We had 7 days with no sun at all.

Both the maximum and minimum mean temperatures were above average with 12.4°C (+2.66) and 6.2°C (+2.44) respectively. The warmest day reached 16.9°C on the 3<sup>rd</sup> which is the 6<sup>th</sup> highest November maximum since records began. The lowest minimum was -1.2°C on the 28<sup>th</sup>.

We had 2 air frosts and 4 ground frosts.

## Weather Summary for December 2011.

December was relatively warm and sunny for this time of year but with above average rainfall. Some of this fell as snow in the middle of the month.

Precipitation was above average with 82.4 mm, which is 12.9 mm above average. We had 17 days where at least 0.2 mm was recorded, 4 of these with at least 5 mm. The most was 20.9 mm on the 12<sup>th</sup>. There was snowfall on the 16<sup>th</sup> which settled but melted during the day.

Sunshine was above average with 74.5hrs (average for December is 53.8); the most was 6.3 hours on the 7<sup>th</sup> and 9<sup>th</sup>. We had 8 days without any sun at all.

December had above average mean maximum and minimum temperatures. The mean maximum was 8.6°C (+1.7) and the mean minimum was 2.8°C (+1.2). The highest maximum temperature was 12.1°C on the 26<sup>th</sup>. The coldest night temperature was -3.2°C in the early hours of the 19<sup>th</sup>.

We had 6 air frosts and 11 ground frosts.

## Weather Summary for 2011

### *Rainfall*

The total for 2011 was 571.5 mm, the average is 733.0 mm. It rained (0.2mm or more) on 176 days (175 in 2010). The most on one day was 21.8 mm on 18<sup>th</sup> of August; the wettest month was January with 84.6 mm. The driest month was April with 5.2 mm. Of the twelve months, seven had below average rainfall.

### *Sunshine*

Hours of sun figures were above average totalling 1689.1 hours. The average is 1592.3 hours. The 'sunniest' month was May with 237.6 hours.

### *Temperature*

The year was the second warmest on record (records began in 1878) with a mean air temperature of 10.84°C. The mean maximum and minimum temperatures both ranked as the second warmest in our records with 14.7°C (+1.1) and 6.9°C (+1.0) respectively. The hottest day was the 27<sup>th</sup> June reaching 29.19°C and the coldest night was the 8<sup>th</sup> of March dropping to -3.88°C; we had 67 ground frosts (126 in 2010).

Note: the average refers to the 30 year means 1981-2010.