

Weather Data summary for May 2022 for the Blenheim Meteorological station located at the Grovetown Park campus of the Marlborough Research Centre.

Table 1: Weekly temperatures, rainfall and sunshine during May 2022

	Mean Max (°C)	Mean Min (°C)	Mean (°C)	Ground Frosts	Rainfall (mm)	Sunshine (hours)	Wind-run (km)
1 st - 7 th	21.0 (+4.5)	9.4 (+3.6)	15.2 (+4.0)	0	0.0	49.0	175.1
8 th - 14 th	17.8 (+1.3)	7.1 (+1.3)	12.4 (+1.2)	1	8.2	39.7	182.1
15 th - 21 st	17.7 (+1.2)	8.7 (+2.9)	13.2 (+2.0)	1	17.2	28.2	234.4
22 nd - 28 th	16.2 (-0.3)	3.4 (-2.4)	9.8 (-1.4)	0	0.2	53.6	194.4
29 th - 31 st (3 days)	16.6 (+0.1)	5.6 (-0.2)	11.1 (-0.1)	0	22.2	13.9	161.3
1 – 31 May	18.0 (+1.5°C)	7.0 (+1.2°C)	12.5 (+1.3)	2 3.5 less	47.8 (80%)	184.4 (105%)	193.1 89%
LTA 1986-2021	16.5	5.8	11.2	5.5	59.4	176.2	216.4

May 2022 recorded above average temperatures and slightly above average sunshine hours. Below average number of ground frosts, rainfall, and wind-run.

Sunshine

184.4 hours sunshine for May was 105% of the long-term average (LTA) of 176.2 hours (1986-2021).

May 2021 recorded 162.7 hours sunshine

May 2020 recorded 187.5 hours sunshine

May 2019 recorded 214.6 hours sunshine (highest May total on record 1932-2022)

Blenheim has recorded 1132.1 hours sunshine for the five months January to May 2022; 103% of the LTA of 1094 hours.

Rainfall

Rainfall total of 47.8 mm was 80% of the LTA for May of 59.4 mm.

May 2021 rainfall was 88.2 mm.

May 2020 rainfall was 81.6 mm.

May 2019 rainfall was 55.0 mm.

Total rainfall for the five months January to May 2022 was 240.4 mm; 101% of the LTA of 239 mm.

Total rainfall for the five months January to May 2021 was 205.8 mm; 86% of the LTA.

Total rainfall for the five months January to May 2020 was 125.8 mm; 53% of the LTA.

Although the total rainfall for the first 5-months of 2022 is very close to the LTA, the monthly rainfall totals so far in 2022 have all been quite different to each of the monthly LTAs. The very high February total (153.4 mm – 334% of LTA) is the main reason that the 5-month total is close to average. If February is excluded, total rainfall for January, March, April and May of 87.0 mm is only 45% of the LTA of 193.1 mm.

Soil Moisture

Shallow soil moisture (5-35 cm depth) was 19.8% on 1 May. This was well below the average soil moisture value (2003-2021) on 1 May of 28.5%. With little rainfall in the first two weeks of May the soil moisture remained fairly steady. Most of the rain was in the second half of May and by 31 May soil moisture had risen to 30.5%. This was still well below the average value on 31 May of 35%.

Marlborough will need average to above average rainfall over winter to ensure that moisture at depth in the soil profile is recharged prior to spring.

Temperature

Mean temperature of 12.5°C was +1.3°C above the LTA for May of 11.2°C. 6th warmest May on record for the 91 years 1932 to 2022.

May 2021 mean temperature was 11.2°C
May 2020 mean temperature was 10.9°C
May 2019 mean temperature was 12.85°C (second warmest on record)
May 2007 mean temperature was 13.1°C (warmest on record)

The mean temperature for the first week of May 2022 was 4.0°C above the May average; an exceptionally warm start to the month. Although the second and third weeks of the month were considerably cooler than the first week, they were still warmer than average. The fourth week of the month was cold and the mean temperature of 9.8°C was 1.4°C below the LTA, and 5.4°C cooler than the first week. However, rather surprisingly the fourth week didn't record any ground frosts.

Frosts

May 2021 - 2 ground frosts and 0 air frosts.
May 2021 - 9 ground frosts and 0 air frosts.
May 2020 - 6 ground frosts and 0 air frosts.
May 2019 - 2 ground frosts and 0 air frosts.
May LTA – 5.5 ground frosts and 1.3 air frosts

The coldest ground frost of -1.6°C was recorded on the morning of 13 May and the coldest air minimum temperature of +1.4°C was recorded on 27 May.

While there were only 2 ground frosts during May (grass minimum temperatures equal to or below -1.0°C), there were a further 6 mornings during the month when the grass temperature was between 0 and -1.0°C; i.e. below zero but not quite cold enough to qualify as a ground frost.

Wind Run

May 2022 recorded average daily wind run of 193.1 km; well below the LTA of 216.4 km (1996-2021). Rather interestingly the third week of the month recorded both the calmest day of the month, 15 May with only 45 km of wind-run and 21 May with 421 km wind-run.
45 km of wind-run is the 5th lowest daily total on record for Blenheim over the 26 years 1996 to 2022.

Autumn Summary– March to May 2022

Sunshine

March to May 2022 recorded 661.9 hours sunshine; 111% of the LTA (1986-2021). 3rd highest total on record 1930-2022.

Autumns in Blenheim have become sunnier over recent years.

Autumn 1994 = 695.8 hours - Highest
Autumn 1930 = 666.2 hours – 2nd
Autumn 2022 = 661.9 hours – 3rd
Autumn 2007 = 655.6 hours – 4th
Autumn 2020 = 654.9 hours – 5th
Autumn 2019 = 651.5 hours – 6th
Autumn LTA = 598.2 hours

Rainfall

March to May 2022 recorded 74.4 mm rain, 49% of the LTA (1986-2021). This is the 6th driest autumn on record over the 93 years 1930 to 2022.

Autumn 2021 = 175.2 (116% of LTA)
Autumn 2020 = 117.0 (78% of LTA)
Autumn 2019 = 229.8 (152% of LTA)
Autumn LTA = 150.9

Temperature

March 2022 – 16.3°C (+0.2°C); April 2022 – 14.7°C (+1.2°C); May 2022 – 12.5°C (+1.3°C)

Autumn 2022 = 14.5°C (+0.9°C LTA); 10th warmest autumn for the 90 years 1933-2022

Autumn 2021 = 13.9°C (+0.3°C LTA)

Autumn 2020 = 13.4°C (-0.2°C LTA)

Autumn 2019 = 14.6°C (+1.0°C LTA)

Autumn LTA = 13.6°C

Ground Frosts

March to May 2022 recorded only 2 ground frosts and no air frosts.

Autumn 2022 = 2

Autumn 2021 = 9

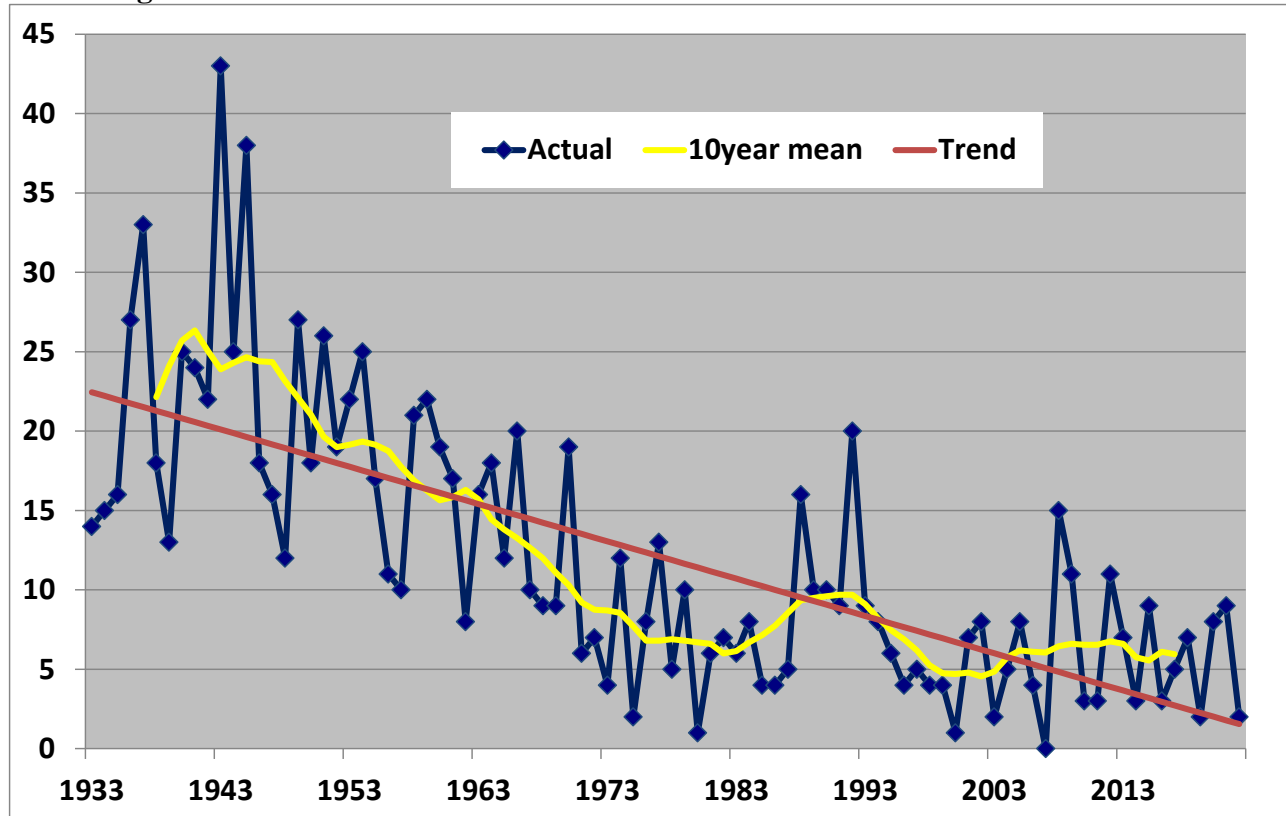
Autumn 2020 = 6

Autumn 2019 = 2

Autumn LTA = 6.8 (1986-2021)

Autumn LTA = 15.8 (1933-1985)

Trend in ground frost numbers in autumn for Blenheim: 1933 to 2022



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