

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

April 2022 was much warmer than average. Sunshine hours were well above average. Wind-run and rainfall were both well below average.

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

	Mean Maximum	Mean Minimum	Mean	Rainfall (mm)	Sunshine (hours)	Wind-run (km)
1 – 7 April	22.2 (+3.3)	11.1 (+3.0)	16.7 (+3.2)	0.0	54.6	167.1
8 – 14 April	19.6 (+0.7)	7.5 (-0.6)	13.5 (=)	0.2	62.6	218.6
15 – 21 April	21.5 (+2.6)	9.5 (+1.4)	15.5 (+2.0)	9.4	52.6	185.6
22 – 28 April	19.1 (+0.2)	8.2 (+0.1)	13.7 (+0.2)	0.0	54.5	158.0
29 – 30 April (2 days)	18.3 (-0.6)	7.1 (-1.0)	12.7 (-0.8)	0.0	15.3	203.0
April 2022	20.4 (+1.5°C)	9.0 (+0.9°C)	14.7 (+1.2°C)	9.6 (19%)	239.6 (125%)	183.7 (83%)
Long-term Average 1986-2021	18.9°C	8.1°C	13.5°C	49.7 mm	192.1 hours	220.2 km

Sunshine

239.6 hours sunshine for April was 125% of the long-term average (LTA) for April of 192.1 hours (1986-2021). This is the second highest sunshine total on record for April over the 93 years 1930 to 2022. The only year to have recorded a higher April total is 1986 with 240 hours.

April 2021 recorded 210.6 hours sunshine.

April 2020 recorded 233.4 hours sunshine.

April 2019 recorded 211.2 hours sunshine.

Total sunshine for Blenheim from January to April 2022 is 947.7 hours, 103% of the LTA of 917.8 hours (1986-2021).

April 2022 sunshine totals

For the first time since October 2021, Blenheim recorded the highest monthly sunshine total of any town in New Zealand.

Blenheim - 239.6 hours

New Plymouth - 236 hours (provisional)

Tekapo - 228.4 hours

Richmond - 227.7 hours

However, Blenheim is still languishing in about 9th place for the first four months of 2022, with 947.7 hours sunshine. New Plymouth is still in first place with 1103.3 hours sunshine (provisional), 155.6 hours ahead of Blenheim.

Rainfall

9.6 mm of rain in April was only 19% of the LTA for April of 49.7 mm (1986-2021). This is the third year in a row when April has recorded well below average rainfall. It is the 8th lowest April rainfall total on record for the 93 years 1930 to 2022.

April 2021 rainfall was 7.8 mm.

April 2020 rainfall was 24.2 mm.

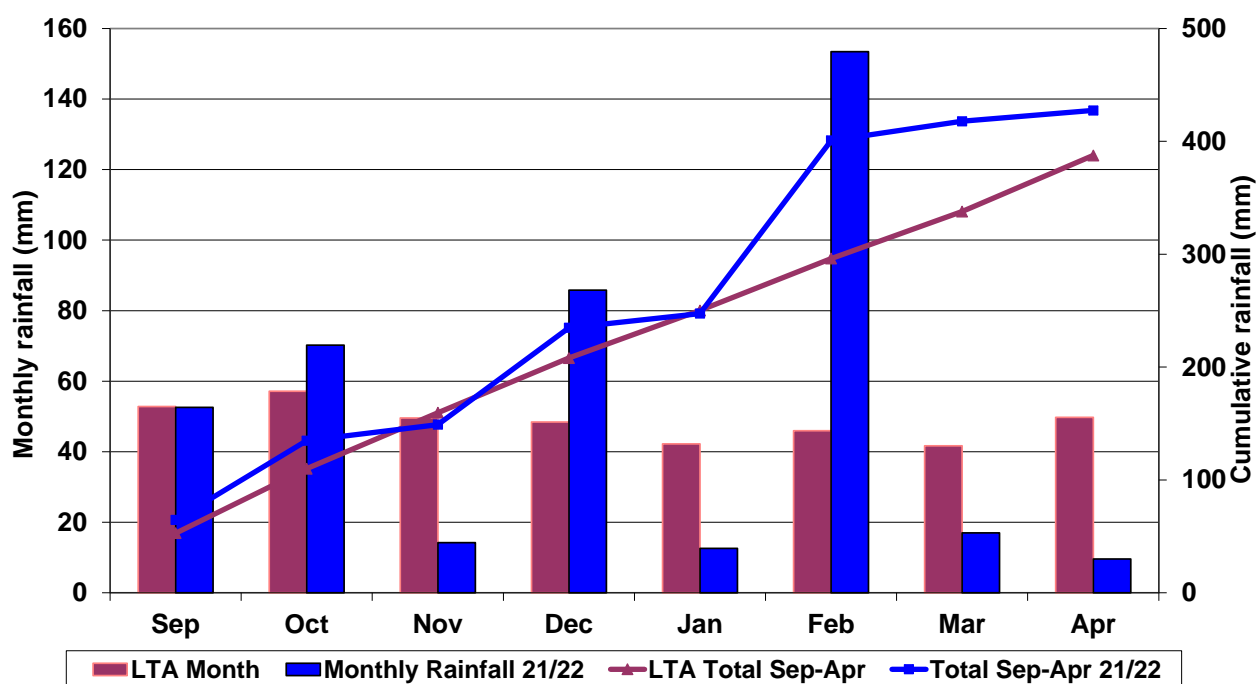
April 2019 rainfall was 80.2 mm.

Total rainfall January to April 2022 is 192.6 mm, 107% of the LTA. It is interesting that the rainfall total from January to April 2022 is above average, especially given the fact that January, March and April all recorded well below average rainfall. The February rainfall total of 153.4 mm was 334% of the LTA (107.5 mm greater than the LTA).

Growing season September to April

Total rainfall for the 8-month growing season, September 2021 to April 2022 (Figure 1), was 415.4 mm, 107% of the LTA. Three of the 8-months recorded above average rainfall (October, December and February). One month recorded average rainfall (September). Four months recorded less than half their average rainfall (November, January, March, April).

Figure 1: Blenheim rainfall for the 8-month growing season, September 2021 to April 2022



Soil moisture (5-35 cm depth)

Shallow soil moisture on 1 April 2022 was 23%. With low rainfall during the month soil moisture fell by 3%, to 20% by 30 April. In contrast the LTA soil moisture value is 22.5% on 1 April and it increases to 28.2% on 30 April, i.e. normally a 7.5% increase in soil moisture during April. So at the end of April 2022 the shallow soil moisture is 8.2 % below the LTA.

With low rainfall in both March and April there will have been no moisture recharge further down in the soil profile. However, there is still time for soil moisture recharge to occur, as the normal period of recharge is over the 5-months from March to July.

Temperature

Mean temperature of 14.7°C was 1.2°C above the LTA temperature for April of 13.5°C (1986-2021). This is the 7th warmest April on record for Blenheim for the 91 years 1932 to 2022. The warmest April since 2010, which recorded 14.9°C.

April 2021 mean temperature was 14.5°C.

April 2020 mean temperature was 13.8°C.

April 2019 mean temperature was 13.2°C.

The data in Table 1 indicate that the first and third weeks of April recorded well above average temperatures. The second week was equal to the LTA mean. The fourth week was below average.

Coldest and Hottest days during April

The coldest mornings in April were on the 14th and 15th with air minimum temperatures of 3.5°C and 3.7°C respectively and grass minimum temperatures of 1.1°C and 0.5°C respectively.

There were no ground frosts in April 2022.

The hottest day was 20 April with a maximum temperature of 24.7°C.

Growing season September to April

The mean temperature for the 8-month growing season, September 2021 to April 2022 was 15.81°C; 0.6°C above the LTA. This is the 11th warmest growing season over the 90 years 1932-33 to 2021-22.

The 3-months October to December 2021 recorded a mean temperature of 16.24°C, which was 1.49°C above the LTA (1932-2021) of 14.75°C. This is the warmest October to December period over the 90 years 1932 to 2021. The 2-months November and December 2021 recorded a mean temperature of 17.43°C, 1.7°C above the LTA of 15.73°C. This is also the warmest November – December period on record.

At the start of December 2021 NIWA predicted that there was a 65% chance that the mean temperature for the 3-month period December 2021 to February 2022 would be above average; i.e. they were highly convinced that summer was going to be warm. This was partly based on the fact that the Tasman Sea was experiencing a marine heatwave. The fact that January 2022 was only +0.1°C above average and February 2022 was -0.6°C below average was unexpected. However, the mean temperature for the 3-months December to February was 18.1°C, 0.4°C above the LTA, largely due to the very warm December. So NIWA's prediction for the 3-month period was technically correct.

Wind Run

April 2022 recorded well below average daily wind-run of 183.7 km compared to the LTA of 220.2 km. Only 5-days during April recorded higher than the LTA wind-run.

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