

Weather Data summary for March 2021 for the Blenheim Meteorological station located at Grovetown Park.

Table 1: Weekly temperatures, rainfall and sunshine during March 2021

	Mean Max (°C)	Mean Min (°C)	Mean (°C)	Rainfall (mm)	Sunshine (hours)	Windrun (km)
1 st - 7 th	24.1 (+2.6)	13.7 (+3.1)	18.9 (+2.8)	0.0	50.8	249.6
8 th - 14 th	20.7 (-0.8)	9.2 (-1.4)	14.9 (-1.2)	1.0	53.6	206.3
15 th - 21 st	20.4 (-1.1)	9.6 (-1.0)	15.0 (-1.1)	0.0	58.7	235.0
22 nd - 28 th	21.0 (-0.5)	9.7 (-0.9)	15.4 (-0.7)	11.4	34.5	185.6
29 th - 31 st	21.2 (-0.3)	13.4 (+2.8)	17.3 (+1.2)	66.8	11.2	168.3
1 – 31 March	21.5 (=)	10.8 (+0.2°C)	16.2 (+0.1°C)	79.2 195%	208.8 91%	214.2 89%
LTA 1986-2020	21.5	10.6	16.1	40.6	230.5	240.7

Sunshine

208.8 hours sunshine for March is 91% of the long term average for March of 230.5 hours (1986-2020).

March 2020 recorded 234.0 hours sunshine.

March 2019 recorded 225.7 hours sunshine.

March 2018 recorded 238.4 hours sunshine.

Total sunshine for the first three months of 2021 is 781.7 hours; 108% of the long-term average (1986-2020) of 724.1 hours.

Sunniest towns for the first three months of 2021 (January to March)

New Plymouth - 842.3 hours

Whakatane - 793.8 hours

Blenheim - 781.6 hours (60.7 hours behind New Plymouth)

Napier - 747.6 hours

Richmond - 743.7 hours (37.9 hours behind Blenheim, 98.6 hours behind New Plymouth)

Rainfall

79.2 mm rain is 195% of the long term average for March of 40.6 mm (1986-2020).

March 2020 rainfall was 11.2 mm.

March 2019 rainfall was 94.6 mm.

March 2018 rainfall was 53.6 mm.

The rainfall total tells us that March received almost double its long-term average rainfall. However, the first 27 days of March were very dry, with only 1.4 mm of rain recorded over that period. The final four days of March (28-31) recorded 77.8 mm rain. The large amount of rain in the last four days of March is the first substantial rainfall event that Blenheim has received since early November 2020.

Up to the 27th March Blenheim was heading for its lowest March rainfall total on record for the 92 years 1930 to 2021. However, the final rainfall total for the month of 79.2 mm is now the 12th highest March total on record for the 92 years.

The period from 1 December 2020 to 27 March 2021 was very dry. Total rainfall was only 54.8 mm; only 31% of the long-term average. Up to that point the four month's December to March were heading for the 2nd lowest rainfall total for that period on record. However, the final four days of March brought the long dry period to a very abrupt end.

Table 2: Monthly rainfall totals: December to March

	Long-term Average	2000/01 mm	1944/45 mm	2017/18 mm	2018/19 mm	2019/20 mm	2020/21 mm
December	47.3	19.4	122.9	21.6	53.6	91.2	22.8
January	43.2	2.2	81.0	80.4	3.8	0.2	7.8
February	46.6	5.6	75.7	181.4	8.0	8.6	22.8
March	40.6	11.8	92.5	53.6	94.6	11.2	79.2
Total % of LTA	177.7	39.4 22% lowest	372.1 209% highest	337.0 190%	160.0 90%	111.2 63%	132.6 75%

Soil moisture

Shallow soil moisture (5-35 cm depth) at the Grovetown Park weather station was 15.7% at the beginning of March 2020 and it had dropped to 14.1% on 26 March; i.e. the topsoil was bone dry. This was following almost four months of low rainfall. However, after 77.8 mm rain from 28 to 31 March the shallow soil moisture jumped from 14.1% on 26 March to 36.5% on 31 March; i.e. the shallow soil moisture went from bone dry to close to saturation (38% is close to field capacity).

Air Temperature

Mean temperature of 16.2°C was 0.1°C above the long-term average temperature for March of 16.1°C (1986-2020).

March 2020 mean temperature was 15.5°C.

March 2019 mean temperature was 17.6°C.

March 2018 mean temperature was 17.1°C.

Coldest and Hottest days during March

No frosts were recorded during March 2021. The coldest minimum air temperature of 5.1°C was recorded on 19 March and the coldest grass minimum of 1.8°C was recorded on 13 March.

The hottest day was 16 March with a maximum temperature of 25.9°C.

Wind Run

March 2020 recorded average daily wind run of 214.2 km compared to the long-term average of 240.7 km (1996-2020); 89% of the long-term average. This is the eleventh year in a row that March has recorded lower than average wind-run.

Rob Agnew

Plant & Food Research / Marlborough Research Centre



**MARLBOROUGH
RESEARCH
CENTRE**

Te Rito Hiranga o Wairau