

## Weather Data summary for March 2020 for the Blenheim Meteorological station located at Grovetown Park.

**Table 1: Weekly temperatures, rainfall and sunshine during March 2020**

	Mean Max (°C)	Mean Min (°C)	Mean (°C)	Rainfall (mm)	Sunshine (hours)
1 <sup>st</sup> - 7 <sup>th</sup>	22.3 (+0.8)	10.2 (-0.4)	16.2 (+0.1)	0.4	47.7
8 <sup>th</sup> - 14 <sup>th</sup>	22.0 (+0.5)	11.0 (+0.4)	16.5 (+0.4)	0.2	60.5
15 <sup>th</sup> - 21 <sup>st</sup>	22.2 (+0.7)	8.1 (-2.5)	15.2 (-0.8)	1.2	62.7
22 <sup>nd</sup> - 28 <sup>th</sup>	20.6 (-0.9)	8.6 (-2.0)	14.6 (-1.4)	7.2	55.2
29 <sup>th</sup> - 31 <sup>st</sup>	17.8 (-2.7)	9.6 (-1.0)	13.7 (-2.4)	2.2	7.9
<b>1 – 31 March</b>	<b>21.4 (-0.1)</b>	<b>9.6 (-1.0°C)</b>	<b>15.5 (-0.6°C)</b>	<b>11.2 27%</b>	<b>234.0 102%</b>
LTA 1986-2019	21.5	10.6	16.1	41.5	230.4

### Sunshine

234.0 hours sunshine for March is 102% of the long term average for March of 230.4 hours (1986-2019).

March 2019 recorded 225.7 hours sunshine.

March 2018 recorded 238.4 hours sunshine.

March 2017 recorded 200.7 hours sunshine.

Total sunshine for the first three months of 2020 is 788.5 hours; 109% of the long-term average (1986-2019) of 723.3 hours.

### Sunniest towns for the three months to the end of March 2020

Whakatane - 870.9 hours

New Plymouth - 861.8 hours

Richmond - 820.8 hours

Blenheim - 749.9 hours (121 hours behind Whakatane)

Napier - 745.7 hours

### Rainfall

11.2 mm rain is 27% of the long term average for March of 41.5 mm (1986-2019).

March 2019 rainfall was 94.6 mm.

March 2018 rainfall was 53.6 mm.

March 2017 rainfall was 47.0 mm.

Of the 11.2 mm rain received in March 9.2 mm fell over the final six days of the month.

**Table 2: Monthly rainfall totals: January to March 1939, 2018, 2019 and 2020**

	Long-term Average	1939 mm	2018 mm	2019 mm	2020 mm
January	44.5	1.5	80.4	3.8	0.2
February	47.7	1.8	181.4	8.0	8.6
March	41.5	6.4	53.6	94.6	11.2
Total	133.7	9.7	315.4	106.4	20.0
% of LTA		7% lowest	236% highest	80%	15% 3rd lowest

Total rainfall of 20 mm for January to March 2020 is the third lowest total on record for these three months, over the 91 years 1930 to 2020. The lowest total for these three months of 9.7 mm was recorded in 1939. In stark contrast January to March 2018 recorded 315.4 mm rain, the highest total on record.

The low rainfall period began on 21 December 2019, following high rainfall in the first three weeks of December. Total rainfall in Blenheim for the 102 days from 21 December 2019 to 31 March 2020 was 20.0 mm. This is the lowest rainfall total for Blenheim over any 102 day period on record.

Minister of Agriculture Damian O'Connor declared a drought for the entire North Island and parts of the South Island (Tasman, Marlborough, Kaikoura, North Canterbury and the Chatham Islands) on 12 March 2020. Although the days have cooled in late March and evapotranspiration has been lower than in January and February, the drought is still continuing in Marlborough. Blenheim recorded a rainfall deficit of 113.7 mm for the 3-months January to March compared to the long-term average. Marlborough's dryland pastoral farmers depend on autumn rainfall in order to be able to produce sufficient grass growth to feed stock prior to grass growth slowing right down over winter with cooler soil temperatures. Marlborough needs a substantial amount of rain during April to break the drought.

### **Soil moisture**

Shallow soil moisture (5-35 cm depth) at the Grovetown Park weather station was 14.5% at the beginning of March 2020; i.e. the topsoil was very close to being as dry as possible after two months of very low rainfall. With little rainfall in March soil moisture remained fairly constant throughout the month. The average shallow soil moisture for March 2020 was 14.2% compared to the long-term average for March (2002-2019) of 20.6%.

### **Air Temperature**

Mean temperature of 15.5°C was 0.6°C below the long-term average temperature for March of 16.1°C (1986-2019).

March 2019 mean temperature was 17.6°C.

March 2018 mean temperature was 17.1°C.

March 2017 mean temperature was 16.3°C.

The average daily maximum in March 2020 was 21.4°C (0.1°C below average).

The average daily minimum in March 2019 was 9.6°C (1.0°C below average).

### **Coldest and Hottest days during March**

No frosts were recorded during March 2020. The coldest minimum air temperature of 3.3°C was recorded on 18 March and the coldest grass minimum of 1.0°C was recorded on 24 March.

The hottest day was 2 March with a maximum temperature of 27.0°C.

### **Wind Run**

March 2020 recorded average daily wind run of 200.7 km compared to the long-term average of 242.4 km (1996-2019); 83% of the long-term average. This is the tenth year in a row that March has recorded lower than average wind-run.

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