

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for October 1968—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Fahrenheit)							Rainfall in Inches				Bright Sunshine		
		Means of		Mean of A and B	Difference From Normal	Absolute Maximum and Minimum			Total Fall	No. of Rain Days	Difference From Normal	Maximum Fall			
		A Max.	B Min.			Maximum	Date	Minimum				Date		Amount	Date
	Ft.	°F.	°F.	°F.		°F.	°F.		In.		In.		Hrs.		
Adair	280	60.2	42.2	51.2	0.0	74.6	22	32.1	13	0.69	10	-1.4	0.17	18	..
Timaru	56	62.6	42.3	52.5	+0.2	74.3	29	31.6	16	0.68	10	-1.4	0.20	23	214
Waimate	200	63.0	42.1	52.6	+0.1	75.0	29	34.2	5	1.33	13	-0.9	0.53	24	..
Otematata	920	59.8	38.4	49.1	-3.2	69.5	21	29.3	6	3.08	11	+1.7	1.20	28	..
Oamaru Aerodrome	99	60.2	40.4	50.3	..	74.1	22	31.1	12	0.78	7	..	0.35	23	..
Tara Hills, Oamarua	1,600	57.4	35.9	46.6	-2.6	66.7	21	25.5	12	4.32	11	+2.5	1.25	26	216
Lake Hawea	1,147	56.1	37.9	47.0	-4.6	62.7	21, 22	25.0	13	7.57	14	+4.7	1.66	22	..
Naseby Forest	2,000	56.5	33.6	45.0	-2.3	66.0	22	20.6	12	1.89	13	-0.4	0.45	26	..
Herbert Forest	200	63.1	..	..	..	74.0	29	..	..	1.18	12	..	0.25	18, 23	..
Cherry Farm, Waikouaiti	21	60.0	37.9	49.0	-0.7	69.5	21	29.3	7	1.57	13	-0.4	0.40	22	..
Taieri	80	60.0	39.9	49.9	-0.7	71.7	8	28.0	5	2.66	15	+0.2	0.78	22	..
Berwick Forest	60	60.2	38.6	49.4	-1.6	72.3	8	29.2	5	2.79	16	+0.3	0.72	22	..
Dunedin Airport	4	60.2	39.6	49.9	-2.0	72.0	8	27.0	5	2.48	16	+0.3	0.62	22	194
Musselburgh, Dunedin	5	58.3	42.7	50.5	-1.4	71.0	22	34.2	12	3.73	14	+1.2	0.99	22	181
Oamaru	99	60.6	41.3	51.0	..	74.5	29	32.4	13	0.46	7	..	0.16	18	224
West Arm, Lake Manapouri	590	50.7	37.2	44.0	-3.3	59.5	6	28.8	12	31.96	..	+17.6	..	..	..
Queenstown	1,080	57.2	38.8	48.0	-2.7	64.8	21	28.5	12	6.40	18	+3.4	1.43	22	191
Queenstown Aerodrome	1,145	56.4	37.9	47.2	..	64.8	1	27.0	12	5.10	17	..	1.29	22	..
Mid Dome	1,252	55.7	37.6	46.6	-2.9	64.7	1	23.7	12	6.19	20	+2.9	1.49	22	..
Cromwell	698	59.8	39.3	49.6	-3.1	68.2	21	25.2	12	1.74	12	+0.3	0.38	25	..
Ophir	1,000	59.0	37.1	48.0	-2.3	67.6	21	20.8	12	0.91	7	-0.7	0.27	22	..
Moa Creek	1,400	56.8	33.2	45.0	-3.0	64.9	17	20.3	12	1.05	10	-0.3	0.25	18	..
Earnsclough	500	62.3	36.0	49.2	-1.4	71.2	21	23.0	6	1.42	11	+0.1	0.34	22	..
Alexandra	461	60.8	39.8	50.3	-2.5	67.2	7	28.5	12	1.43	12	+0.2	0.32	22, 28	224
Roxburgh Hydro	350	60.6	40.5	50.6	-2.4	70.0	22	31.0	12, 15	2.23	16	+0.4	0.50	22	..
Moa Flat, West Otago	1,345	54.5	37.0	45.8	-2.5	64.0	22	27.8	12	3.66	15	+1.2	1.00	22	..
Lake Mahinerangi	1,300	54.5	35.2	44.8	..	64.9	22	25.5	12	4.49	19	+1.2	0.78	22	..
Tapanui	740	56.6	39.0	47.8	-2.4	65.5	7	29.8	12	3.90	16	+1.0	1.32	22	..
Rankleburn Forest	835	56.8	38.0	47.4	-1.8	66.0	1	30.4	12	4.84	19	..	1.21	22	..
Taieri Mouth	50	57.8	39.6	48.7	..	66.7	22	30.1	7	3.40	18	..	0.83	22	..
Otautau	180	56.2	38.4	47.3	-2.9	67.0	1	29.0	12	6.00	21	+2.7	1.39	22	156
Winton	145	56.6	40.9	48.3	..	67.1	1	30.1	12	3.45	20	..	1.37	22	171
Gore	235	57.7	40.9	49.3	-2.1	66.0	1, 7	30.5	12	3.59	19	+0.6	1.15	22	156
Pebble Hills	150	56.5	40.2	48.4	-2.3	66.0	1	29.0	12	4.16	20	+1.1	1.64	22	..
Invercargill Airport	1	55.4	39.7	47.6	-2.1	64.3	1	29.9	12	4.27	23	+0.9	1.20	22	137
Milton	60	58.8	38.6	48.7	..	71.5	8	27.9	7	3.74	16	..	1.30	22	..
Balclutha	20	59.4	40.2	49.8	..	72.6	20	30.2	7	3.26	19	..	0.77	22	188
Rarotonga	15	79.1	68.4	73.8	+0.4	84.0	13	60.5	6	1.97	15	-3.1	0.73	14	189
Raoul Island	126	68.4	59.0	63.7	+0.1	72.2	29	51.7	1, 2	4.26	13	+0.8	1.60	7	182
Chatham Islands	157	54.7	45.5	50.1	-0.1	60.6	27	35.9	7	2.79	17	+0.9	0.56	16	147
Campbell Island	49	47.4	38.0	42.7	..	52.0	1	30.8	12	5.97	30	..	0.52	27	75
Scott Base, Antarctica	45	..	..	-7.1	..	21.9	..	-43.2	..	..	..	..	..	..	..

LATE RETURNS

Waipoua Forest, Sept 1968	290	60.0	42.4	51.2	-1.5	65.0	11, 13	32.9	24	6.86	18	+1.4	1.19	20	..
Maramarua, Sept 1968	124	59.7	39.9	49.8	-1.4	69.2	14	30.0	29	5.11	22	+1.2	1.79	25	..
Mangatu Forest, Sept 1968	570	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kaweka Forest Sept 1968	1,358	56.3	41.4	48.8	..	65.2	21	31.4	27	1.51	7	..	0.60	16	..
Gracefield, Lower Hutt, Sept 1968	10	55.7	44.2	50.0	-0.2	61.8	14	36.1	30	4.32	15	+0.3	1.03	26	..
Greymouth, Sept 1968	14	55.6	43.6	49.6	-0.8	60.0	23	35.3	28	11.18	26	+3.9	2.30	4	111
Glentanner, Sept 1968	2,800	47.9	34.5	41.2	..	58.0	12	24.0	27	10.06	..	..	..	..	..
Gore, Sept 1968	235	54.7	37.6	46.2	-1.5	64.3	21	28.2	29	2.82	18	+0.3	0.55	9	128

The "normal" refers to the present site of the instruments. The standard periods for normals are: for temperature 1931-60, for rainfall 1921-50, and for sunshine 1935-60. No normals are available for stations with only short records.

*The sunshine recorder is not located at the station but is in the near vicinity.

NOTES ON THE WEATHER FOR OCTOBER 1968

General—Winds from a westerly quarter were exceptionally strong and frequent over New Zealand in October, and for the greater part of the country it was the windiest of any month in many years of records. It was also cooler and wetter than usual. The persistence of cool temperatures for both September and October seriously retarded growth, and dairy production was reduced. Late frosts, mainly on the 12th, affected the fruit crop in Central Otago.

The stormiest period was from the 22nd to the 29th. A very deep depression passed close to Southland early on the 26th, and violent north-westerly gales buffeted the South Island, Cook Strait, and parts of the North Island.

Rainfall—Rainfall was mainly about 50 percent above average. It was more than double the average value on the main ranges of the South Island, including the Southern Lakes district.

It was drier than usual by about 25 percent in Bay of Plenty, together with parts of Waikato, Taupo, and Gisborne; also on the Canterbury plains and coast, together with North Otago and the Kaikoura coast; and on parts of the east coast of Northland, Auckland, Hawke's Bay, and Wairarapa.

Otira's total rainfall for the month was 49.52 in., of which 11.92 in. fell during the first 4 days and 29.12 in. from the 22nd to the 29th. Following on the second period of heavy rain, serious flooding affected parts of the West Coast, cutting off road access, especially through the Buller Gorge.

Severe hailstorms were reported on several occasions, notably in Herekino (Northland) on the 4th, in Hawera and Rangiora on the 10th, in Waipukurau on the 16th, and in Manawatu on the 30th.

Temperatures—Temperatures were mainly below average by 1-2 degrees in the North Island. Highest departures of 3-5 degrees were reported in a 60-mile wide belt centred on the main ranges of the South Island, and extending from the Buller river southward. This belt included Fiordland and most of Westland, besides parts of western Southland, Central Otago, and the Canterbury high country. Milford Sound had its coldest October in over 30 years of records. In coastal areas of Gisborne and Hawke's Bay temperatures were warmer than usual by a degree.

The main snowfalls affecting the ranges and high country of both Islands were from the 11th to the 16th. The snow was reported to low levels at times in eastern districts of the South Island and, on the 16th, also in parts of Hawke's Bay.

Sunshine—Northland, Gisborne, Nelson, North Otago, and most of Canterbury were favoured with 20-30 hours above average sunshine. Western districts of the North Island and parts of Buller and coastal Southland were below average by a similar amount.

Weather Sequence—At the beginning of the month an anticyclone was centred to the north-east of the North Island, while depressions lay to the east and south-east of Tasmania. Strong to gale north-westerlies buffeted the South Island, while troughs of low pressure were advancing over the Tasman Sea. Heavy rain was reported in the Alps, with some rain also in the Canterbury high country, Nelson, Marlborough, and Wellington. For the next 2 days somewhat similar conditions continued, with troughs of low pressure crossing New Zealand. Rain spread to many North Island districts, but not to the east coast between Castlepoint and East Cape. By this time one of the depressions had reached Campbell Island. On the 4th and 5th there was a change to westerly and south-westerly