

CLIMATOLOGICAL TABLE—continued
Summary of the Records of Temperature, Rainfall, and Sunshine for September 1951—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.	°F.		In.		In.	In.		Hrs.	
Rudstone, Methven	1,217	59.3	39.1	49.2	+2.2	72.3	15	29.1	7	0.60	8	-3.01	0.28	19	158.0
Akaroa	150	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lincoln	36	59.4	37.5	48.4	+0.9	74.4	30	27.1	7	0.46	8	-1.51	0.11	6	187.0
The Hermitage	2,510	53.7	36.6	45.2	+2.7	64.1	9,26	24.1	7	11.54	15	-0.76	4.50	19	130.0
Winchmore	626	59.5	37.3	48.4	(+1.9)	73.8	16	25.2	3	0.43	6	..	0.19	19	..
Haast	15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ashburton	323	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fairlie	1,004	60.0	33.7	46.8	+1.7	71.0	15	23.0	2,9	0.77	3	-1.81	0.54	19	..
Lake Tekapo	2,400	56.2	32.4	44.3	+1.5	67.5	27	21.3	7	1.35	5	-0.57	0.88	19	160.5
Timaru	56	59.5	38.3	48.9	+1.0	70.9	21	28.5	3	0.27	7	-1.64	0.07	28	116.4
Adair	200	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tara Hills	1,600	56.7	34.5	45.6	(+1.5)	67.7	26	24.1	7	1.62	7	..	1.00	19	..
Milford Sound	20	53.4	39.0	46.2	-0.3	58.8	17	30.6	7	26.59	24	(+7.76)	6.44	15	..
Waimate	200	59.6	38.0	48.8	+0.3	71.0	25	30.0	4	0.41	8	-1.79	0.16	20	128.9
Queenstown	1,100	55.9	38.0	47.0	+0.9	60.6	13,25	28.0	7	3.19	17	+0.64	1.06	19	145.6
Cromwell	720	58.7	38.4	48.6	(+2.5)	67.0	30	25.9	3	1.64	6	..	0.49	19	..
Ophir	1,000	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Earnsclough	500	59.0	34.8	46.9	(+0.5)	68.7	30	25.0	3	1.01	5	..	0.40	19	..
Waipiata	1,550	53.8	35.7	44.8	+0.5	63.0	26	24.5	7	1.11	11	-0.02	0.36	28	148.8
Alexandra	520	58.8	37.0	47.9	+0.8	69.4	30	27.0	3	0.97	8	+0.16	0.33	28	146.5
Roxburgh Hydro	350	59.1	38.9	49.0	..	71.0	30	27.3	7	0.90	11	..	0.16	4	..
Mid Dome	1,252	57.4	37.3	47.4	..	69.0	30	24.0	7	1.54	11	..	0.39	1	..
Moa Flat, West Otago	1,345	53.3	35.8	44.6	..	64.4	30	26.7	7	2.20	17	..	0.44	18	..
Manorburn Dam	2,448	48.9	31.8	40.4	+0.8	57.0	16,30	20.0	7	1.04	12	-0.25	0.26	28	..
Taieri	80	56.9	36.8	46.8	(-0.9)	69.8	15	25.8	7	1.37	14	(-0.70)	0.43	16	130.0
Musselburgh, Dunedin	5	56.4	41.0	48.7	(-0.6)	71.3	15	30.0	7	1.70	15	-0.22	0.58	16	134.3
East Gore	245	57.8	38.9	48.4	+1.1	70.0	30	30.0	7	2.31	18	-0.28	0.48	16	..
Gore	240	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Otautau	180	57.0	39.6	48.3	(+2.0)	64.8	11	28.5	3	3.29	16	..	1.13	18	..
Pebble Hills	150	57.5	38.0	47.8	..	67.8	29	28.0	3	2.92	16	..	0.65	16	..
Invercargill	32	56.2	37.5	46.8	-0.6	68.0	29	28.0	3	3.49	21	+0.06	0.53	18	137.6
Invercargill South	8	55.4	39.6	47.5	(+0.4)	66.2	29	31.0	3	3.37	19	(-0.15)	0.55	18	..

LATE RETURNS

Appleby, Nelson, Aug. 1951	57	54.8	34.7	44.8	-1.7	61.2	29	29.1	19	1.21	7	(-1.96)	0.49	10	..
Haast, Aug. 1951	15	53.0	37.1	45.0	(-0.9)	62.0	24	28.8	13	8.12	14	..	1.45	9	153.7
Adair, Aug., 1951	200	49.5	35.7	42.6	(-1.3)	58.8	9	28.8	13	1.58	11	..	0.88	23	..
Manorburn Dam, Aug.	2,448	39.9	24.7	32.3	-1.7	47.0	3,27	12.0	20	0.96	8	-0.09	0.29	19	..

NOTE.—At stations where departures from normal are in parentheses, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years, and the normals are partly interpolated.

NOTES ON THE WEATHER FOR SEPTEMBER 1951

General.—September was mild and very dry, not at all typical of the spring season. For the country as a whole there has not been a drier September in the last ninety years.

Peaceful, anticyclonic weather predominated for the greater part of the month with the notable exception of the severe westerly gale which lashed the country on the 20th. A most unusual feature was the combination of very low rainfall and marked lack of sunshine over most of the North Island; for instance, Auckland, which had not previously recorded such a low September rainfall came within two hours of establishing a new record for low sunshine. However, this was indeed a fortunate combination for the farmer since, in spite of the shortage of rain, crops and pastures made good growth, especially towards the end of the month.

Apart from some trouble with bloat in dairy cattle in the Waikato, stock was reported to be in good condition.

Rainfall.—With a few minor exceptions, rainfall was well below normal, especially in the North Island where the total rainfall for the whole island was under 25 per cent of the normal. Falls were negligible in Hawke's Bay, Gisborne, and near the Marlborough coast. In the South Island, Nelson and Canterbury had less than 20 per cent of the normal rainfall. In Southland, southern Westland, and western Otago rainfalls were, however, close to or slightly above average.

The low rainfall for the country as a whole creates a new September record. Although data available in early years do not cover the whole country very effectively, it is reasonably certain that there has not been a drier September in the last ninety years. At Dannevirke it was the driest of any month in a 50-year record.

Temperatures.—Temperatures were above normal, mostly by about 1° F. or less, though near the Canterbury foothills they were relatively warmer. On the Otago coast and about the Waikato there was a small negative anomaly.

Sunshine.—It was a sunny month in Nelson, Marlborough, North Canterbury, and in the southern part of the Wellington Province. Elsewhere there was less sunshine than usual, with a substantial deficit in South Canterbury, and also from Wanganui through the Waikato to Northland.

Weather Sequence.—Showers advanced up the east coast behind a cold front, but the weather improved generally on the 2nd during the passage of a ridge of high pressure. When a depression passed close to Southland on the 4th the associated trough brought a brief period of rain and colder temperatures. Some heavy showers occurred with a colder front on the 6th, and some light snow was reported from parts of Southland.

After scattered showers on the east coast on the 7th there was a general clearance with the approach of an anticyclone from the west. A depression which had developed in the north Tasman Sea

filled up without adversely affecting Northland's weather. The anticyclone gradually increased in size and intensity with the result that most of the country enjoyed a spell of settled weather until the 16th. Exceptions were Fiordland and Southland where westerly winds and changeable, showery weather persisted throughout the greater part of the period, due to the influence of westerly depressions passing far to the south. A few showers extended northwards to Otago, mainly between the 10th and 13th, while scattered light rain affected the North Island on the 12th. The latter was associated with a weak trough separating two centres of the main high-pressure system which, at that time, extended from eastern Australia across the Tasman Sea and far to the east of New Zealand.

A depression far to the north moved eastwards past the Kermadec Islands on the 14th. Under its influence showers which had developed in Northland on the previous day persisted until the 15th.

Barometers remained high to the north, but during the next few days became progressively lower in the south. The first of a series of cold fronts from the south-west crossed the Dominion during the 17th. It was of moderate intensity, preceded by freshening north-westerlies, then brief rain followed by a temporary south-westerly change. The second of the series which crossed the South Island on the 18th was of similar intensity, but the third on the 20th was extremely vigorous, being accompanied by strong gales and in places by thunderstorms. Though the gales were of relatively short duration, minor damage to property was reported over a wide area.

During the passage of an anticyclone across the North Island on the 21st fine weather prevailed. Skies clouded over in the north on the 22nd and winds turned northerly with the approach of a depression from the Tasman Sea. The associated warm front moved south-eastwards across the Dominion on the 24th, while the centre crossed Otago that night. There was widespread rain, but falls were light, and only a negligible amount reached the east coast between Canterbury and Hawke's Bay.

After a temporary change to westerly winds, northerlies again prevailed during the 26th ahead of a complex trough approaching from the Tasman Sea. The trough was retarded by the pressure of a large stationary anticyclone east of New Zealand. Cloudy to overcast skies and mild temperatures predominated for the remainder of the month. Rain fell intermittently in western and northern districts and some light falls extended to Otago and Canterbury during the 27th and 28th.

At the end of the month the trough was just west of the Dominion, while pressures still remained high to the east. Rain extended to the Bay of Plenty as a small depression began to develop east of North Cape.

R. G. SIMMERS, Acting Director.