

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for August 1969—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.
Milton .. ..	60	52.8	35.2	44.0	..	64.0	4	26.9	8	1.95	10	..	0.36	19	..
Balclutha .. ..	20	52.7	35.6	44.1	..	61.2	1	29.1	2	1.57	11	..	0.36	1	122
Rarotonga .. ..	15	76.2	64.5	70.4	-0.3	86.3	22	58.1	8	7.02	13	+3.1	3.66	31	164
Raoul Island .. ..	126	63.3	54.4	58.8	-2.1	68.3	19	48.4	28	2.23	14	-3.5	0.47	9	168
Chatham Islands .. ..	157	51.5	42.5	47.0	..	55.9	7	33.8	22	1.60	17	..	0.52	8	97
Campbell Island .. ..	49	45.9	38.3	42.1	..	50.0	8	29.3	3	7.25	30	..	1.83	3	19
Scott Base, Antarctica .. ..	45	..	..	-20.0	+3.2	4.8	28	-47.0	6	..	..	..	..	..	..
Lake Vanda, Antarctica .. ..	51	-29.4	-47.6	-38.6	..	19.6	30	-62.3	20	..	..	..	..	..	..

LATE RETURNS

	Ft.	°F.	°F.	°F.		°F.		°F.		In.			In.		Hrs.
Waipoua Forest, July 1969	290	57.0	38.2	47.6	-2.6	63.0	7	29.0	21	5.60	20	-1.7	1.02	24	..
Matakana, Takatu, July 1969	230	55.8	44.1	50.0	-2.1	66.5	15	36.0	22	2.32	18	-4.1	0.87	19	..
Opotiki, June 1969 .. ..	20	56.6	37.7	47.2	-2.0	61.0	25	27.1	22	2.34	10	-2.1	1.30	24	148
Opotiki, July 1969 .. ..	20	56.5	36.0	46.2	-2.3	68.0	6	28.8	21	1.77	7	-3.2	0.66	24	194
Taurewa Forest, July 1969	2,545	45.5	29.3	37.4	..	51.4	13	18.8	22	3.01	15	..	0.77	29	..
Gore .. ..	235	49.5	32.7	41.1	+1.1	59.0	6	24.5	20	1.20	12	-0.9	0.19	9,28	103
Kaweka Forest, June 1969	1,358	52.6	38.6	45.6	..	61.0	16	29.0	20	4.31	12	..	1.25	24	..
Kaweka Forest, July 1969	1,358	51.5	39.0	45.2	..	62.1	29	28.2	23	1.69	9	..	0.96	26	..
Whatawhata, July 1969 ..	340	53.6	37.1	45.4	-1.8	58.8	27	26.6	21	3.82	20	-2.7	1.95	7	101

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 AUGUST 1969

**General**—As in July, barometric pressures were exceptionally high over New Zealand; and August was the third successive month with relatively low rainfall. It was also somewhat milder than the two previous months. The comparative absence of wet weather has been appreciated by farmers in the North Island, where growth is reported to be satisfactory, with stock in good condition. However, in parts of the South Island dry weather has persisted for 8-12 months; and a serious shortage of feed is reported in Marlborough, South Canterbury, and North Otago. Lambing has proceeded under favourable conditions in both Islands.

**Rainfall**—Rainfall was below average over most of the country. In the North Island it was mainly three-quarters of the average value; in the South Island only half. Most of Marlborough together with coastal districts of North Canterbury and Banks Peninsula and parts of the Waimea Plains of Nelson, received less than a quarter of the average value.

Total rainfall for the three winter months of June, July, and August has been exceptionally low near the coast between Timaru and Oamaru, and in parts of Marlborough. For this period Oamaru received only 0.59 in., making the winter of 1969 easily the driest in over a century of observations. Other record low winter totals were: Timaru, 0.86 in., Seddon (Marlborough), 0.39 in., and Blenheim, 1.11 in.

The total rainfall at Timaru for the first 8 months of the year was only 6.39 in., the average for that period being 15.5 in. The last occasion on which conditions similar to this occurred in Timaru was 1922.

**Temperatures**—Temperatures were 1-2 degrees above average over nearly the whole of the South Island. In the North Island they were close to average.

Snow fell on the ranges and high country of both Islands on the 9th and 10th, and from the 19th to the 21st.

**Sunshine**—Sunshine was below average by 15-50 hours in western districts from Hawera to Wellington, Levin's total being only 86 hours. It was also 15-20 hours below average on the Southland Plain and in parts of Coromandel and Waitomo. It was above average by up to 40 hours in Gisborne and northern Hawke's Bay, Gisborne city receiving 187 hours. It was also 20-40 hours above average in some inland districts of North Otago and Canterbury.

**Weather Sequence**—On 1 August 1969 a depression passed over Campbell Island from the west and the associated trough of low pressure crossed the country. Rain was reported in western districts of both Islands, besides Southland, parts of Otago, the Canterbury high country, Nelson, and central districts of the North

Island. For the next 3 days the weather was settled during the passage of an anticyclone across the North Island. On the 5th a depression was passing far to the south and the associated trough of low pressure crossed the South Island, bringing rain to the West Coast and Southland besides northern and some western districts of the North Island. During the next 3 days a small depression developed over Northland and moved south. Rain spread over the whole North Island with some considerable falls in Northland, North Taranaki, and Bay of Plenty.

Another trough of low pressure associated with a depression far to the south crossed the country during the 8th and 9th with fairly general rain, mainly light. On the following day a small depression formed near Gisborne and moved eastward, causing the winds over the North Island to turn to cold southerlies with rain. Snow was reported on the North Island high country. From the 11th to the 13th an anticyclone moved across the North Island, while a trough of low pressure remained stationary close to Southland. Pressures were low to the south-west and westerlies covered the South Island. Considerable rain was reported on the West Coast and there were some light falls also on the Southland coast and in western districts of the North Island. From the 14th to 18th this trough of low pressure crossed the country. A shallow depression developed on it west of Northland and moved slowly south-eastward. Rain was confined at first mainly to the South Island but soon cleared there. From the 15th to the 18th the weather was unsettled over the North Island, with considerable falls in the Bay of Plenty on the 17th. Temperatures were cold at times in the southerlies.

Another trough of low pressure crossed the country during the 19th and 20th, with light rain over most of the South Island and in western and northern districts of the North Island. A depression was still centred east of Gisborne and as it deepened from the 21st to the 24th cold southerlies set in over the North Island, while a large and intense anticyclone moved on to the South Island. Rain was reported in eastern districts of the North Island and Wellington while snow fell on the North Island high country. The 25th was generally fine, under the influence of the anticyclone. The passage of yet another trough of low pressure on the 26th and 27th brought a period of general rain, mainly light.

The 28th and 29th were mainly settled, under the influence of the anticyclone. However, a weak trough of low pressure brought light rain to a number of scattered areas on the last 2 days of the month—western districts of both Islands, the Otago coast, and the Cook Strait area.

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