

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for May 1970—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.	°F.	In.			In.		Hrs.	
Cromwell .. .. .	698	53.1	29.2	41.2	-2.3	64.1	17	15.7	30	0.24	4	-0.9	0.10	25	..
Ophir .. .. .	1,000	51.3	25.3	38.3	-2.7	66.3	17	14.0	30	0.56	4	-0.6	0.33	25	..
Moa Creek .. .. .	1,400	50.5	23.1	36.8	-1.9	65.0	17	13.8	30,31	0.52	5	-0.5	0.36	26	..
Earnsclough .. .. .	500	53.3	27.6	40.4	-2.0	66.8	17	11.3	29	0.35	6	-0.5	0.15	24	..
Alexandra .. .. .	461	52.3	30.5	41.4	-1.7	65.6	17	19.8	29	0.91	8	0.0	0.32	24	146
Roxburgh (Power Stn.) .. .. .	360	52.2	35.9	44.0	-1.6	67.0	17	23.0	28	1.61	9	0.0	0.75	25	..
Moa Flat, West Otago .. .. .	1,345	48.8	33.6	41.2	-1.3	59.9	17	23.0	28	2.36	13	0.0	0.50	26	..
Mahinerangi Dam .. .. .	1,300	48.3	34.0	41.2	..	63.0	17	23.4	28	3.72	14	+1.0	0.88	24	..
Tapanui .. .. .	740	50.4	36.1	43.2	-1.9	64.5	17	27.0	28	2.23	14	-0.8	0.42	23	..
Rankleburn Forest .. .. .	835	49.5	35.1	42.3	-1.4	58.6	17	28.8	4	2.20	14	-0.3	0.58	25	..
Taieri Mouth .. .. .	50	52.0	38.7	45.4	..	57.8	31	31.1	31	2.55	11	..	0.56	25	..
Otautau .. .. .	180	..	34.3	..	..	..	..	27.0	28	3.94	10	+0.4	0.96	25	110
Winton .. .. .	145	52.4	36.0	44.2	-1.2	61.3	2	28.0	28	0.89	9	..	0.23	25	121
Gore .. .. .	235	52.6	36.2	44.4	-0.8	61.0	2	26.0	4	2.14	13	-0.5	0.44	25,26	118
Hokonui Forest .. .. .	150	53.5	35.6	44.6	-1.2	61.5	2	27.0	28	2.20	12	-1.1	0.44	25	..
Invercargill Airport .. .. .	1	52.8	35.8	44.3	-0.8	61.2	1	27.4	31	2.26	13	-1.4	0.42	25	97
Tiwai Point, Bluff .. .. .	15	53.0	40.8	46.9	..	59.9	2	30.5	17	2.10	14	..	0.38	25	..
Milton .. .. .	60	52.4	34.6	43.5	..	59.9	17	25.0	31	2.04	11	-0.1	0.40	25	..
Finegand, Balclutha .. .. .	20	52.4	37.6	45.0	-0.5	68.6	1	27.8	4	2.04	12	..	0.44	24	110
Rarotonga, Cook Islands .. .. .	15	82.3	68.2	75.2	+1.5	87.0	4	61.0	22	4.47	12	-1.5	2.90	15	176
Raoul Island .. .. .	126	71.2	62.2	66.7	-2.4	76.4	6	54.2	31	5.40	25	+0.6	1.08	10	144
Chatham Islands .. .. .	157	54.2	46.1	50.2	-3.5	59.8	20	38.6	4	5.75	27	+3.2	1.30	19	78
Campbell Island .. .. .	49	46.4	39.6	43.0	..	54.7	16	29.3	2	3.38	24	..	0.41	25	14
Scott Base, Antarctica .. .. .	58	..	..	-17.3	-6.0	18.9	16	-43.1	10	..	..	..	..	..	..
Lake Vanda, Antarctica .. .. .	510	-1.7	-24.5	-13.1	..	26.4	18	-49.0	28	..	..	..	..	..	..

LATE RETURNS

Takatu, Matakana, April 1970	230	70.2	56.3	63.2	+1.8	73.8	8	47.3	21	3.66	9	-0.9	1.33	2	..
Taurewa Forest February 1970	2,545	72.4	45.3	58.8	..	76.3	18	33.4	2	0.77	11	..	0.30	28	..
Portland Island April 1970	255	66.4	55.9	61.2	..	76.0	18	32.0	21	3.25	10	..	1.15	27	..
Ashley Forest, April 1970	350	65.5	47.0	56.2	+2.6	77.6	18	39.5	21	0.86	5	-1.4	0.41	2	164

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 MAY 1970

**General**—May was marked by an unusually high frequency of southerly to easterly winds. It was colder than normal but also more sunny. Between the spells of unsettled and often cold weather there were brighter and warmer spells lasting for some days. Stock were in good condition but pasture growth was stunted by frosts and in Canterbury the ground was still rather too dry.

Two small local tornadoes were reported on the 8th, at Albany (Auckland) and at Bethlehem (Tauranga). Another one was reported at Waitara, near New Plymouth, on the following day. All three tornadoes left a trail of local damage.

**Rainfall**—Rainfall was somewhat above normal over most of the North Island with northern and some eastern districts of the South Island. It was below normal over most of the South Island and most of Northland, besides eastern Bay of Plenty with parts of Taupo and north-western Hawke's Bay. The greatest relative deficiency was recorded in the alps with the Canterbury high country, northern Central Otago and northern Fiordland; in these areas rainfall ranged from a quarter of the average down to 3 percent, in Central Otago. Milford Sound received only 1.73 in., the lowest recorded in any month of the year in 40 years of observations.

Rain was general over nearly the whole country on the 8th and 9th, the 22nd and 23rd. Some particularly heavy rain over a short period was reported from the Morrinsville-Matamata-Rotorua area on the 8th, with about an inch in 20 minutes in some areas.

**Temperatures**—Temperatures were mainly below normal by 1-2 degrees. Greatest departures were recorded in Central Otago and the Canterbury high country.

The main cold southerly spells were on the 10th and 11th, and from about the 23rd to the 27th. In the later spell considerable snow was reported, especially in the central high country of the North Island, blocking the Desert Road for some time.

**Sunshine**—Sunshine was mainly above normal by 20-60 hours. Northland, the Southland high country, and parts of the West Coast were especially favoured. Two unusually high totals for May were reported from Dargaville (178 hours) and Hokitika (171 hours).

**Weather Sequence**—During the first week of May a series of depressions crossed the north Tasman Sea and the North Island. For the first 2 days a depression was centred just west of Northland and another in the same latitude far to the east, while an anticyclone was situated near Campbell Island. Easterly winds predominated over New Zealand. Rain was reported in the east and north of the North Island and also on the east coast of the South Island. Some heavy falls were reported in the Gisborne ranges. During the 3rd and 4th, as the first depression moved to the north-east of Northland, conditions remained somewhat similar. From the 5th to the 7th this depression moved southward past the Chatham Islands while another depression from the North Tasman Sea crossed Northland. At first, rain extended as far south as Palmerston North. On the 6th there was a temporary improvement in most districts but the 7th was wet in most northern and some western districts of the North Island.

Yet another depression had moved into the North Tasman Sea and during the 8th and 9th this covered the North Island with a small secondary centre forming east of the South Island. The associated troughs of low pressure crossed the country, bringing general rain. There were some heavy falls, especially in Nelson, where flooding was reported. As pressures rose over the Tasman Sea cold southerlies set in on the 10th, causing some improvement on the West Coast and in the high country of Canterbury and Otago. Snow was reported on some of the ranges, notably the Rimutakas. On the 11th a few showers still persisted in Southland, on the Otago coast, around Christchurch and Banks Peninsula, and in the southern part of the North Island.

The period from the 12th to the 18th was marked by settled weather over a considerable part of the country, during the slow