## THE NEW ZEALAND GAZETTE

CLIMATOLOGICAL TABLE—Summary of the Records of Temperature, Rainfall, and Sunshine for September 1972—continued

Station	Height of Station Above M.S.L.	Air Temperatures in Degrees (Celsius)								Rainfall (in millimetres)					ļ
		Means of		Mean of A	Differ- ence	Absolute Maximum and Minimum			Total	No. of	Differ- ence	Maximum Fall		Bright Sun- shine	
		A Max.	B Min.	and B	From Normal	Maxi- mum	Date	Mini- mum	Date	Fall	Rain Days	From Normal	Amount	Date	
Taionaa Waad	Metres	°C 13.8	°C 6.4	°C 10.1	°C +1.5	°C 22.8	6	°C 3.1	10,28	mm 148	18	mm +100	mm 60	8	Hrs
Taiaroa Head	296	13.8	4.5	9.7	+1.5	20.2	6	-3.5	30	141		+83	61	8	
Taieri	24	15.8	5.2	10.5	+2.2	22.9	6	0.6	29	108	11	+57	55	8	
Berwick Forest	18	15.7	4.8	10.3	+2.0	23.5	6	-0.6	29	146	16	+93	60 64	8 8	143
Dunedin Airport	$\begin{vmatrix} 1\\2 \end{vmatrix}$	15.6 15.1	4.9 5.8	10.3	+1.8 + 1.3	22.6	6	0.4	29 3	123 129	16 16	+77 +73	69	8	138
Oamaru	30	16.1	6.2	11.2	+1.3 +2.1	24.2	6	0.4	22	39	8	+3	23	ĕ.	161
West Arm, Lake Manapouri	180	10.3	4.5	7.4	+1.6	15.6	6	0.3	9	785	25	+455	88	14	
Queenstown	329	14.0	4.8	9.4	+1.4	20.1	6	0.2	30	175	15	+109	63	8	171
Queenstown Aerodrome	352	13.8	4.0	8.9	+1.0	20.8	6	$-1.2 \\ -1.1$	17 29,30	137 206	15	+135	53 63	8 8	171
Mid Dome	387	13.9	3.9	8.9 10.4	+1.0 +1.7	20.3	6	$ ^{-1.1}_{0.3}$	4	86	iö	+135 $+58$	43	8	
Ophir	305	14.8	3.5	9.2	+1.9	20.6	Ğ	-4.0	22	82	8	+54	37	8	
Moa Creek	427	13.8	1.0	7.4	+1.2	20.6	7	-6.4	18	73	8	+50	40	8	
Earnscleugh	152	16.6	3.8	10.2	+2.2	23.9	6	-2.5	22	89	11	+66	52 47	8 8	174
Alexandra	141	16.2	4.8	10.5	+1.8 +1.0	22.8	26	-1.2 0.0	22 9,29	78 92	13 12	+58 +59	56	8	1/4
Roxburgh (Power Station) Moa Flat	410	12.9	2.7	7.8	+0.8	19.4	5,6	-1.2	30	172	19	+121	68	8	
Mahinerangi Dam	396	12.6	3.2	7.9	+1.3	19.8	5	-2.5	29	152	17	+81	59	8	
Tapanui	226	13.6	4.1	8.9	+0.7	20.0	5	-0.1	28	184	20	+118	61	8	
Rankleburn Forest	255	13.8	3.8	8.8	+1.1	20.8	7	0.6	29 29	204 150	18	$^{+146}_{+92}$	59 54	8 8	
Taieri Mouth Otautau	15	14.4	5.4	9.9 9.7	+1.7	23.9	6 6,7	0.7	29	194	14	+92 +110	39	7	129
Winton	44	14.1	5.6	9.9	+1.5	20.8	6	0.7	22	150	19		26	7	145
Gore, DSIR	124	13.4	5.4	9.4		19.7	5	0.4	28	162	21	-+98	33	8	142
Hokonui Forest	46	13.8	5.8	9.8	+1.4	20.0	6	2.0	2	171	22	+97	28	7	
Woodlands	47	13.3	5.3	9.3	+1.4	19.7		2.3	19,20	171	23	$+\dot{8}\dot{7}$	35	·:7	iż7
Tiwai Point, Bluff	5	12.9	6.0	9.5	71.4	18.5	6	0.5	11,20	169	23	1-07	35	7	
Milton	18	15.0	5.2	10.1	+1.6	22.3	Ğ	0.9	29	142	19	+19	46	8	
Finegand, Balclutha	6	14.7	4.9	9.8	+1.6	21.0	13	-0.3	24	131	18		30	8	136
Nugget Point	131	13.3	5.7	9.5	-0.3	20.7	6 23	2.2	28 18	161 83	23 16	$^{+105}_{-31}$	29 24	9 20	129
Rarotonga Airport, Cook Is. Raoul Island, Kermadec Is.	5 38	24.8 18.8	18.4	21.6	+0.3	27.5	21	11.9	18	75	11	-31	22	14	164
Waitangi, Chatham Islands	48	11.8	6.1	9.0	0.0	14.4	1	1.2	18	93	14	+29	55	3	150
Campbell Island	15	8.1	2.0	5.7	+0.2	9.8	5,18	-5.8	9	137	29	+35	15	12	64
Scott Base, Antarctica	18	•••		-24.7	+2.7	-5.6	3	-44.8	28	•••		••	••	••	
					LATE	RETU	RNS								
Whatawhata, Aug. 1972	104	13.4	4.4	8.9	-0.6	16.9	30	-2.2	3	181	18	+36	40	11	154
Minginui Forest, Aug. 1972	366	12.0	-1.5	5.3	-1.0	15.9	31	-8.2 -7.9	3	132 205	14 18	$^{-5}_{+32}$	36 52	12 11	
Pureora Forest, Aug. 1972 Mangatu Forest, Aug. 1972	549 174	12.1	-0.4 2.9	7.5	+1.4	17.5	31	-3.0	31	58	13	-79	20	13	
Makahu Spur, Aug. 1972	1479	1.7	-3.2	-0.7		10.9	31	-6.4	8			••	1	••	
Whiteman Valley, Aug. 1972	235	10.0	2.3	6.2	••	13.5	11	-2.9	20	118	19	••	17	26,30	
Black Birch Range, Aug. 1972		2.5	-3.2	-0.4	••	12.0	31	-7.6 -4.0	18	ić		••	4	25 25	•••
Ikawai, Aug. 1972 Adair, Aug. 1972	70 85	11.2	0.5	5.9 6.1	-0.6	17.0	19	-4.0 -0.3	4	16	5 7	$-\dot{27}$	3	12	
Ballantrae No. 2, Wood-	171	10.9	3.4	7.2		14.9	11	-2.1	5	102	22		23	16	
ville, Aug. 1972															
Errata															
Twizel, Aug. 1972	457	8.0	-3.2	2.4		15.3	25	-7.2	7	40	10	:-	23	11	::.
Queenstown, Aug. 1972.	329	8.9	0.0	4.4	-1.0	14.8	31	-3.0	8	47	10	-17	17	11	141
Queenstown Aero., Aug.	352	9.0	-1.7	3.6	•••	15.0	31	-7.8	14	29	8	••	11	25	••

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.

A rainday is a day with rainfall equal to or greater than 0.1 mm.

## NOTES ON THE WEATHER FOR SEPTEMBER 1972

General—September was a warm month marked by exceptionally strong winds from a westerly quarter. Over most of the North Island and in Nelson, Marlborough, and Canterbury conditions were rather too dry but the weather was favourable for lambing. However, in Southland and Otago this was a particularly wet month and it followed 6 months of predominantly wet weather, especially in Southland. Besides stock losses due to flooding, there were many reports of losses of both lambs and ewes from the wet weather and lack of feed. Many gales were reported, especially in the South Island on the 13th, with some damage. On this occasion Dunedin suffered particularly severe damage. At the Airport the wind reached gale force during nearly all the afternoon and evening, the highest mean speed over a 10-minute period being 59 kts and the highest gust 84 kts. Two small local tornadoes were reported, the first at Frankton, Hamilton, on the 17th, the second at Levin on the 21st. Considerable damage was done, especially at Levin.

*Rainfall*—Rainfall showed wide variations. It was below normal except in western and southern districts of the South Island. On the Canterbury Plains and in most of Marlborough, also in the Waimea Plains of Nelson and in Gisborne and Northern Hawke's Bay, it was less than half the normal value. By contrast, over nearly the whole of Fiordland, Southland, and Otago rainfall was from 2 to 4 times the normal value. Over most of Otago and part of Southland more than half the month's rain, amounting to 70–150 mm, fell during the 8th and 9th, causing serious flooding of the Clutha and Mataura Rivers.