

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of September, 1942. Observations taken at 9 a.m.

Altitude of Observatory, 415 ft.

Date.	Pressure in Millibars, at Sea-level and Standard Gravity.	Temperature (° F.) from Observations at 9 a.m.							Wind.			Rainfall in Points: (100 Points = 1 Inch).	Bright Sunshine: Hours and Tenths.	Weather (Symbols) at 9 a.m.
		In Screen.					Minimum on Grass.	Beaufort Scale.		Anemometer.				
		At 9 a.m.			Maxi-mum.	Mini-mum.		Direction.	Force.					
		Dry.	Wet.	Relative Humidity, per Cent.							Dry.			
1	1015.9	50.7	48.3	83	56.7	47.8	44.1	NNW	4	216	4	1.3	oir	
2	1016.2	52.7	50.0	82	59.8	48.0	44.8	N	2	306	7	9.1	b	
3	1004.5	57.5	54.8	83	60.7	51.3	49.2	NNW	3	119	1	7.3	bc	
4	1006.9	52.3	49.5	80	61.9	44.1	35.7	NE	1	124	14	9.4	b	
5	1023.5	54.4	51.6	81	57.9	44.2	38.7	NW	3	85	..	5.1	c	
6	1032.4	53.9	49.8	73	57.6	43.9	35.8	NNE	3	96	..	8.8	o	
7	1032.0	53.0	51.0	86	58.0	49.2	46.0	N	3	199	..	7.8	c	
8	1017.7	50.0	48.4	89	56.0	48.6	46.3	NW	5	201	5	1.1	o	
9	1009.2	51.9	49.9	86	55.6	48.6	44.9	NW	1	270	70	0.0	o	
10	1003.0	43.7	42.6	91	44.8	42.1	41.5	S	6	247	6	0.0	oir	
11	1002.7	42.7	36.1	45	46.6	35.5	28.0	SW	3	256	71	3.1	oip	
12	1003.4	45.8	39.7	53	53.0	33.9	32.3	NW	2	262	4	6.7	b	
13	1005.4	47.8	43.0	70	52.8	41.2	26.1	SSW	3	329	..	8.5	c	
14	1013.6	51.5	46.7	63	56.4	38.8	29.2	NNW	5	85	20	6.4	bc	
15	1002.7	54.8	54.3	96	59.0	49.2	48.8	NNW	5	357	13	1.8	opq	
16	1004.8	58.4	55.0	80	65.2	50.0	46.6	NE	1	370	..	9.2	b	
17	1006.4	57.7	54.3	80	58.6	52.0	51.0	NNW	6	310	6	1.3	q	
18	1008.5	55.6	52.3	79	60.0	50.4	48.5	NNW	4	513	..	9.3	bc	
19	1012.7	56.5	51.0	66	62.6	48.5	45.5	NNW	3	372	..	8.6	c	
20	1010.2	53.7	51.0	83	58.8	49.6	45.2	NNW	4	263	3	3.4	o	
21	1012.4	49.8	48.3	89	53.0	47.2	43.8	S	3	176	2	0.5	o	
22	1011.5	52.6	51.0	89	57.5	44.7	41.2	NNW	5	130	33	0.9	o	
23	992.3	57.3	52.5	74	61.0	49.8	48.8	NNW	3	374	41	9.8	bc	
24	984.6	53.3	52.0	91	57.7	45.9	45.6	NNE	3	276	16	2.7	oir	
25	996.6	50.7	44.3	56	54.0	45.0	39.2	NW	5	421	17	6.7	by	
26	1012.4	49.8	41.1	40	55.6	37.0	32.0	SW	2	243	1	10.9	by	
27	1024.2	49.0	45.3	73	59.4	41.3	33.4	SSW	3	110	..	9.7	c	
28	1021.8	54.0	50.0	74	62.0	43.8	36.1	NNW	6	143	..	9.9	c	
29	1018.4	52.1	49.8	84	56.9	49.2	43.6	NW	6	223	2	3.0	o	
30	1021.1	50.0	47.7	84	55.7	46.0	38.3	S	2	242	..	4.6	o	
Means, &c.	1010.9	52.1	48.7	77	57.2	45.6	41.0	..	3.5	244	336	166.9	..	

Mean earth temperature at 1 ft., 51.5°; and at 3 ft., 50.6°. Number of rain days, 20. Total rainfall was 3 per cent. below normal. Sunshine totalled 47 per cent. of the possible. Mean dew-point at 9 a.m. was 45.0°; mean vapour pressure, 10.1 mb.

NOTE.—Snow fell for about half an hour on the morning of the 11th. The flakes were thick at Kelburn, but did not lie on the ground. Fresh snow fell also on the Orongorongo and Wainui ranges on the same day. Hail fell on the 10th and 11th. A sharp thunderstorm occurred on the afternoon of the 24th.

DIRECTION OF WIND.										
Gale (force 8 or more).	Forces 4 to 7.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm.
..	12	8½	3	4	3	..	11½	..

NOTES ON THE WEATHER FOR SEPTEMBER, 1942.

General Notes.—September was a typical spring month. The weather was very changeable, with windy periods and frequent showers. On the whole, however, conditions were not unpleasant east of the ranges. Stock are faring well. Lambing percentages are up to average or above, and there have been very few losses due to adverse weather. Pasture growth is fairly good, but pastures have been checked at times in the east by wind and frosts and elsewhere by lack of sunshine. Wheat and oat crops are doing well, especially on the heavier land.

Rainfall.—Rain days were numerous in all districts, but totals in eastern districts were not heavy. Even half the average was not reached near Gisborne, in parts of southern Hawke's Bay, near Blenheim and Timaru, and in parts of eastern Otago, including Dunedin. In western and northern districts, with only isolated exceptions, averages were exceeded. Percentage surpluses were greatest in the Taupo-Rotorua-Opotiki area, which received more than double the normal. Thunderstorm activity was fairly widespread, especially on the 23rd and 24th. On the latter date storms were accompanied by small whirlwinds near Kaitia and at Woburn.

Temperatures.—As in the two preceding months mean temperatures were milder than normal. Departures of 1° or 2° F. were experienced in the Auckland Peninsula, Wellington Province, and on the east coast of the South Island. Elsewhere the deviations were less marked. Widespread snow showers occurred on the 10th and 11th followed by some hard frosts. Scattered snow fell on the 26th and 27th.

Sunshine.—The sunshine figures varied considerably, but most of the South Island and the centre of the North Island received slightly less than normal sunshine, the deficiencies being greatest in the Waikato.

Weather Sequence.—During the first four days a trough of low pressure affected New Zealand, a depression developing in the north on the 2nd and moving off to the south-east. Some heavy rainfalls occurred in the Auckland Province and also in the south-west. An improvement followed a south-westerly change on the 4th.

Another trough arrived on the 7th with occasional rain extending from the west and south. A depression formed off the west coast, and after it moved to the east a southerly change on the 9th brought a clearance to Westland and some heavy rain to the central provinces. On the 10th southerly winds increased, and snow and hail showers fell about and east of the Alps as well as in the high country of the North Island. Some light snowfalls extended to low levels of the North Island on the 11th. By the 12th winds moderated and the weather was mainly clear, apart from a belt of showers accompanying a secondary disturbance.

A slight wedge of high pressure on the 13th and 14th gave better conditions, but another trough on the 15th brought a period of rain, heaviest in the North Island, with local thunder. Scattered showers persisted in the north and west.

On the 17th a disturbance reached Otago, a very deep depression being located to the south. North-westerly winds increased to gale force in central provinces and Canterbury and rain was fairly general, falls being heaviest about and west of the Alps. Conditions moderated as the disturbance moved away.

On the 20th another trough arrived, and a depression which developed caused further rain in the north and west. Vigorous westerly depressions on the 22nd and 23rd gave changeable weather, stormy at times in Westland. On the 24th a very deep depression was over southern New Zealand. Strong westerlies or south-westerlies reached gale force, and most districts experienced rain and some thunder. As winds tended more south-westerly the showers included hail, while Southland and the high country of both Islands received moderate falls of snow. Further thunder occurred.

On the 26th an anticyclone approached northern New Zealand. Westerlies continued strong with showers at first in Auckland, but fair intervals became more prolonged generally.

A shallow trough on the 28th and 29th resulted in fresh north-westerlies and showers in most districts, but conditions were more settled on the 30th following a rapid rise of pressure.