

Government Meteorological Observatory.

METEOROLOGICAL Observations at Kelburn, Wellington, for the Month of February, 1938. Observations taken at 9 a.m.

Altitude of Observatory, 415 ft.

| Date. | Pressure, in Inches, 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. | | | Maxim. | Minim. | | Direction. | Force. | | | | | |
| | | Dry. | Wet. | Humidity. | | | | | | | Dry. | | | |
| 1 | 30.275 | 65.2 | 60.1 | 73 | 74.8 | 57.0 | 40.2 | SSE | 4 | 138 | .. | 13.3 | b | |
| 2 | 30.378 | 68.1 | 60.0 | 60 | 72.5 | 56.0 | 49.0 | SSE | 2 | 92 | .. | 13.4 | b | |
| 3 | 30.346 | 65.5 | 58.9 | 65 | 73.2 | 55.9 | 46.2 | SSE | 1 | 58 | .. | 2.9 | oz | |
| 4 | 30.177 | 67.7 | 60.6 | 65 | 70.6 | 58.4 | 54.6 | SSE | 2 | 59 | 70 | 1.0 | o | |
| 5 | 29.672 | 70.0 | 66.1 | 81 | 78.9 | 60.7 | 60.1 | N | 2 | 86 | 124 | 1.0 | og | |
| 6 | 29.596 | 66.7 | 62.2 | 72 | 71.9 | 60.8 | 59.4 | NW | 6 | 292 | Trace | 4.7 | o | |
| 7 | 29.643 | 66.0 | 61.1 | 74 | 70.0 | 60.0 | 57.5 | NW | 7 | 471 | .. | 11.1 | oq | |
| 8 | 29.941 | 66.7 | 61.0 | 71 | 70.5 | 58.2 | 54.5 | NW | 3 | 181 | .. | 11.8 | bc | |
| 9 | 30.056 | 70.0 | 63.2 | 67 | 75.2 | 56.0 | 49.5 | NW | 2 | 108 | .. | 13.1 | b | |
| 10 | 30.033 | 71.8 | 66.6 | 75 | 77.8 | 58.0 | 51.9 | NW | 1 | 45 | Trace | 11.1 | o | |
| 11 | 29.829 | 71.3 | 66.1 | 74 | 72.9 | 62.8 | 59.0 | N | 1 | 60 | 79 | 0.7 | o | |
| 12 | 28.879 | 65.5 | 64.0 | 92 | 70.4 | 62.2 | 62.1 | NW | 3 | 217 | 3 | 0.9 | ojp | |
| 13 | 29.838 | 67.5 | 65.9 | 91 | 70.0 | 61.8 | 59.1 | NW | 3 | 148 | 10 | 2.2 | ojp | |
| 14 | 29.873 | 69.0 | 65.8 | 84 | 72.1 | 63.2 | 61.2 | NNW | 5 | 245 | 20 | 4.6 | e | |
| 15 | 29.959 | 66.7 | 62.8 | 80 | 72.0 | 63.2 | 62.8 | NW | 5 | 426 | .. | 8.6 | o | |
| 16 | 30.136 | 60.0 | 59.7 | 98 | 62.0 | 57.0 | 52.0 | S | 3 | 107 | 127 | 0.2 | omd | |
| 17 | 30.068 | 58.0 | 57.9 | 99 | 58.7 | 56.6 | 56.8 | S | 4 | 279 | 24 | 0.0 | d | |
| 18 | 30.166 | 58.5 | 58.3 | 99 | 68.9 | 56.0 | 56.4 | SSW | 3 | 212 | 10 | 1.3 | omd | |
| 19 | 30.071 | 62.8 | 62.2 | 98 | 67.0 | 57.8 | 62.1 | SSE | 3 | 108 | 101 | 0.0 | omr | |
| 20 | 30.148 | 66.6 | 62.2 | 77 | 71.2 | 55.6 | 51.6 | Calm | .. | 168 | Trace | 11.0 | bz | |
| 21 | 30.251 | 62.0 | 60.9 | 93 | 64.9 | 57.1 | 56.5 | S | 4 | 141 | .. | 7.5 | of | |
| 22 | 30.192 | 64.9 | 60.6 | 77 | 67.0 | 56.9 | 55.3 | SSE | 3 | 191 | .. | 9.3 | e | |
| 23 | 30.103 | 67.7 | 63.4 | 77 | 77.9 | 54.0 | 49.5 | N | 1 | 110 | .. | 10.9 | bc | |
| 24 | 29.974 | 70.8 | 66.0 | 76 | 72.4 | 62.0 | 59.0 | NW | 5 | 172 | .. | 3.1 | o | |
| 25 | 29.864 | 67.0 | 65.2 | 90 | 73.0 | 64.3 | 63.0 | NW | 7 | 414 | .. | 6.9 | oq | |
| 26 | 29.835 | 68.0 | 67.2 | 96 | 69.2 | 66.1 | 65.4 | NW | 4 | 385 | 47 | 0.0 | om | |
| 27 | 29.752 | 69.8 | 67.1 | 87 | 74.0 | 61.8 | 61.1 | NW | 3 | 279 | 17 | 3.6 | e | |
| 28 | 29.661 | 69.4 | 66.3 | 85 | 72.5 | 65.2 | 64.9 | NW | 5 | 393 | .. | 11.1 | b | |
| Means, &c. | 29.990 | 66.5 | 62.9 | 81 | 71.1 | 59.5 | 56.4 | .. | 3.3 | 199 | 632 | 165.3 | .. | |

Mean earth temperature at 1 ft., 68.1°; and at 3 ft., 65.7°. Number of rain days, 12. Total rainfall, 130 per cent. above normal. Sunshine, 43 per cent. of the possible. Mean dew-point at 9 a.m., 60.5°; mean vapour pressure, 0.525 in.

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. |
|-------------------------|----------------|----|------|----|------|----|------|----|------|-------|
| .. | 11 | 3½ | .. | .. | 3 | 6½ | ½ | .. | 13½ | 1 |

NOTE.—North-west gales occurred on the night of the 6th and in the early morning of the 15th. There was a very thick fog, particularly over the harbour, on the morning of the 21st.

NOTES ON THE WEATHER FOR FEBRUARY, 1938.

General.—The weather in February was tropical as regards both the temperature and the humidity of the atmosphere. The rainfall, also, especially in the North Island, was frequently tropical in intensity and in its erratic distribution. The warm and humid conditions were practically continuous northward from Wellington, and even south of that, the break during the third week brought only partial relief. Considerable damage was done to roads in the North Island by the heavy rain, and in places flooding. Slips were numerous. Fruit crops were damaged by the gale of the 4th in the north, while the humidity has been unfavourable to stone fruits. For apples it is a very good season. Except in Otago and Southland, parts of which are still suffering from a severe drought, there is abundant growth of pasture, and stock are doing well. The damp conditions are, however, congenial for insects and fungous pests, and considerable trouble is likely to be experienced from these. Potatoes and tomatoes have already suffered severely in places.

Rainfall.—The rainfall was much above average from Nelson and Marlborough northwards. The departures were fairly moderate in Taranaki and the Manawatu, but generally from twice to three times the average was recorded. Very dry weather persisted in most of Otago and Southland, large areas having less than half the normal rainfall. In the remainder of the South Island conditions varied considerably, some parts having more and some less than the average. Some extraordinarily heavy rains occurred on the 4th and again on the 16th to 18th. Most of the very heavy falls were of a rather local character, the amounts varying greatly over short distances. On the whole they were not so heavy on the high as on the low levels. This, though very unusual, was a fortunate circumstance, since otherwise there would have been far more serious flood damage. Waihi had 16.5 inches on the 4th; Matarau (Cape Runaway) 7.50 on the 4th and 5.50 on the 5th; Tolaga Bay had 2.22 inches on the 15th, 2.30 on the 16th, 0.74 on the 17th, and 7.62 on the 18th. Parts of Gisborne had as much as 6 inches on the 18th.

Temperatures.—February was the hottest month hitherto experienced in New Zealand. This is all the more remarkable if one remembers that the atmosphere was very humid, the sky generally cloudy, and the rainfall heavy. From the returns to hand the North Island had a mean temperature 5.8 degrees and the South 5.3 degrees above the normal. The only month in which these departures have been exceeded was December, 1934, when the average for the Dominion was 6.2 degrees. On that occasion, however, a draught was prevailing and there was abundant sunshine. The extreme maxima were not excessively high.

Sunshine.—As already indicated, the amount of sunshine recorded was generally below normal. This was especially the case from Nelson and Marlborough northwards, where the average deficit was something like 50 hours. Parts of the southern interior of Canterbury, and Otago and Southland, had a sunny month. Alexandra reports 239.3 hours and Lake Tekapo 220.1.

Storm Systems.—The month began with an anticyclone covering the South Island and fair weather generally. On the 3rd, however, the wind in the far North freshened from the east. By the 4th a cyclone was centred between Cape Maria van Diemen and Norfolk Island, and easterly gales were blowing in much of the Auckland Province. On the 5th the cyclone filled up. Rain fell over most of the country, with many heavy falls from Nelson and Marlborough northwards, and flooding in the Auckland Province. Considerable damage was done by the gales.

From the 11th to the 14th there was general rain with many heavy falls, due to a series of depressions following closely on one another. From the 12th to the 13th many severe thunderstorms occurred in the North Island.