

these directions continued to prevail, and were frequently strong. During the whole of this period an anticyclone remained centred over the Tasmanian region, while pressure to the east was low. General rains occurred, with heavy falls over the South Island and about Wellington. From the 10th to the 14th the atmosphere was particularly unstable, and thunder and hailstorms were very numerous. On the 10th a small tornado occurred near Opunake, while on the 13th a waterspout was seen from Levin. Snow fell on the ranges, and there were a number of frosts during the period.

A fine spell followed, and the anticyclone previously mentioned finally moved eastward across the Tasman Sea and the Dominion. On the 23rd, however, another unsettled spell commenced. The pressure remained high at Chatham Islands but rather low over New Zealand, while another intense anticyclone developed over Tasmania. Again there was general rain, with very heavy falls from Taranaki southwards. Flooding occurred in Taranaki, western Wellington, the Waimakariri River, and in Otago and Southland. In parts of the last-mentioned provinces the floods were very severe.

EDWARD KIDSON, Director.

## CLIMATOLOGICAL TABLE.

SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL, AND SUNSHINE FOR FEBRUARY, 1937.

| Station.               | Height of Station above<br>M.S.L. | Air Temperatures in Degrees (Fahrenheit). |           |                              |                               |                                  |        |          |        | Rainfall in Inches. |                           |                               |                   | Bright<br>Sun-<br>shine<br>(Hours). |       |
|------------------------|-----------------------------------|---|-----------|------------------------------|-------------------------------|----------------------------------|--------|----------|--------|---------------------|---------------------------|-------------------------------|-------------------|-------------------------------------|-------|
|                        |                                   | Means of                                  |           | Mean<br>or<br>A<br>and<br>B. | Difference<br>from<br>Normal. | Absolute Maximum and<br>Minimum. |        |          |        | Total<br>Fall.      | No.<br>of<br>Wet<br>Days. | Difference<br>from<br>Normal. | Most in a<br>Day. |                                     |       |
|                        |                                   | A<br>Max.                                 | B<br>Min. |                              |                               | Maximum.                         | Date.  | Minimum. | Date.  |                     |                           |                               | Amount.           | Date.                               |       |
| Te Paki, Te Hapua      | 200                               | ..  | ..        | ..                           | ..                            | ..                               | ..     | ..       | ..     | In.                 | ..                        | ..                            | ..                | ..                                  | ..    |
| Waipoua State Forest   | 225                               | 69.2                                      | 53.6      | 61.4                         | (-1.9)                        | 78.0                             | 23     | 43.0     | 20     | 4.13                | 11                        | ..                            | 0.86              | 12                                  | 129.4 |
| Riverhead              | 105                               | 69.3                                      | 51.1      | 60.2                         | (-2.2)                        | 77.0                             | 24     | 40.0     | 21, 22 | 1.69                | 11                        | ..                            | 0.44              | 14                                  | ..    |
| Auckland               | 160                               | 70.3                                      | 58.3      | 64.3                         | -2.3                          | 75.3                             | 5      | 50.6     | 14     | 1.05                | 9                         | -2.52                         | 0.38              | 14                                  | 186.7 |
| Waihi                  | 404                               | 70.6                                      | 53.2      | 61.9                         | -2.3                          | 77.0                             | 6      | 41.0     | 20, 21 | 2.04                | 11                        | -3.20                         | 0.58              | 26                                  | 199.5 |
| Te Aroha               | 46                                | 74.0                                      | 54.5      | 64.2                         | -1.6                          | 81.6                             | 5      | 40.0     | 22     | 1.42                | 10                        | -1.89                         | 0.25              | 14                                  | ..    |
| Morrinsville           | 87                                | 72.8                                      | 49.3      | 61.0                         | ..                            | 79.0                             | 5      | 37.2     | 14     | 1.10                | 8                         | ..                            | 0.55              | 10                                  | ..    |
| Tauranga               | 100                               | 72.7                                      | 52.9      | 62.8                         | -1.8                          | 79.8                             | 8      | 39.9     | 14     | 1.20                | 11                        | -2.58                         | 0.41              | 26                                  | 220.1 |
| Ruakura Farm, Hamilton | 131                               | 70.8                                      | 49.9      | 60.4                         | -3.5                          | 76.6                             | 9      | 37.8     | 14,    | 1.78                | 11                        | -1.16                         | 0.47              | 14                                  | 190.9 |
|                        |                                   |   |           |                              |                               |                                  |        |          | 20, 22 |                     |                           |                               |                   |                                     |       |
| Rotorua                | 925                               | 69.9                                      | 52.6      | 61.2                         | -2.4                          | 76.8                             | 3, 5   | 39.3     | 14     | 1.89                | 12                        | -1.95                         | 0.62              | 24                                  | 174.3 |
| Whakarewarewa          | 1,000                             | 69.5                                      | 50.9      | 60.2                         | (-2.9)                        | 78.5                             | 8      | 37.5     | 20     | 1.75                | 12                        | -1.64                         | 0.61              | 24                                  | ..    |
| New Plymouth           | 60                                | 66.9                                      | 53.3      | 60.1                         | -1.4                          | 73.1                             | 5      | 44.6     | 21     | 1.24                | 14                        | +7.30                         | 4.64              | 24                                  | 180.4 |
| Chateau Tongariro      | 3,670                             | 56.1                                      | ..        | ..                           | ..                            | 67.0                             | 5      | ..       | ..     | 10.71               | 16                        | ..                            | 2.82              | 23                                  | ..    |
| Karioi                 | 2,125                             | 64.1                                      | 42.6      | 53.4                         | (-3.0)                        | 75.2                             | 27     | 31.1     | 20     | 3.18                | 13                        | ..                            | 0.87              | 13                                  | ..    |
| Napier                 | 5                                 | 70.3                                      | 53.6      | 62.0                         | -2.9                          | 79.7                             | 28     | 41.0     | 21     | 0.72                | 5                         | -1.74                         | 0.39              | 8                                   | 218.8 |
| Hastings               | 45                                | 73.4                                      | 49.4      | 61.4                         | (-2.1)                        | 83.6                             | 23     | 36.4     | 21     | 0.11                | 5                         | ..                            | 0.04              | 1                                   | ..    |
| Taihape                | 2,157                             | 64.0                                      | 47.1      | 55.6                         | -2.1                          | 74.2                             | 26     | 38.0     | 14, 20 | 2.35                | 10                        | -0.08                         | 0.41              | 14                                  | ..    |
| Tangimoana             | 8                                 | 67.6                                      | 50.5      | 59.0                         | -3.4                          | 80.0                             | 25     | 35.6     | 20     | 5.46                | 10                        | +3.05                         | 1.37              | 24                                  | ..    |
| Palmerston North       | 100                               | 68.7                                      | 51.2      | 60.0                         | -2.8                          | 83.0                             | 25     | 38.0     | 21     | 5.29                | 12                        | +3.11                         | 1.53              | 24                                  | ..    |
| Massey College, P.N.   | 110                               | 67.3                                      | 48.8      | 58.0                         | (-4.3)                        | 80.1                             | 25     | 39.0     | 20, 21 | 5.63                | 13                        | (+3.27)                       | 1.62              | 24                                  | 177.0 |
| Pahiatua               | 384                               | 67.1                                      | 48.6      | 57.8                         | (-4.2)                        | 80.0                             | 25     | 35.2     | 5      | 4.72                | 11                        | (+1.93)                       | 1.08              | 14                                  | ..    |
| Kapiti Island          | 44                                | 65.3                                      | 54.3      | 59.8                         | -1.8                          | 71.0                             | 25, 26 | 48.0     | 14     | 5.17                | 12                        | +2.61                         | 1.60              | 24                                  | ..    |
| Masterton              | 387                               | 70.4                                      | 46.9      | 58.6                         | -3.8                          | 81.6                             | 25     | 37.0     | 5, 21  | 2.76                | 13                        | -0.02                         | 0.87              | 14                                  | 200.1 |
| Wellington             | 415                               | 64.1                                      | 51.3      | 57.7                         | -4.0                          | 72.6                             | 16     | 43.8     | 21     | 4.22                | 11                        | (+1.47)                       | 0.99              | 24                                  | 197.4 |
| Nelson                 | 24                                | 67.9                                      | 61.3      | 59.6                         | -3.1                          | 76.9                             | 7      | 40.4     | 19     | 5.43                | 11                        | +2.80                         | 2.83              | 25                                  | 212.3 |
| Appleby, Nelson        | 57                                | ..  | ..        | ..                           | ..                            | ..                               | ..     | ..       | ..     | ..                  | ..                        | ..                            | ..                | ..                                  | ..    |
| Blenheim               | 30                                | 72.2                                      | 49.0      | 60.6                         | (-4.0)                        | 84.5                             | 6      | 36.5     | 20     | 2.89                | 11                        | (+1.03)                       | 0.92              | 25                                  | 208.4 |
| Golden Downs           | 900                               | 65.7                                      | ..        | ..                           | ..                            | 72.6                             | 5      | ..       | ..     | 10.67               | 10                        | ..                            | 4.72              | 25                                  | ..    |
| Waihopai               | 860                               | 69.6                                      | 46.5      | 58.0                         | (-3.9)                        | 83.1                             | 6      | 34.4     | 19     | 4.74                | 12                        | ..                            | 1.63              | 24                                  | ..    |
| Hanmer Springs         | 1,225                             | 67.8                                      | 42.3      | 55.0                         | -4.0                          | 82.3                             | 6      | 31.0     | 20     | 2.53                | 13                        | -0.73                         | 0.65              | 14                                  | 205.2 |
| Balmoral               | 743                               | 68.2                                      | 45.9      | 57.0                         | (-3.7)                        | 84.0                             | 6      | 34.0     | 2      | 1.54                | 12                        | ..                            | 0.40              | 10                                  | ..    |
| Hokitika               | 12                                | 63.1                                      | 49.2      | 56.2                         | -3.6                          | 66.0                             | 22     | 40.0     | 20     | 13.84               | 16                        | +6.62                         | 3.42              | 7                                   | 179.7 |
|                        |                                   |   |           |                              |                               | 27, 28                           |        |          |        |                     |                           |                               |                   |                                     |       |
| Lake Coleridge         | 1,220                             | 66.2                                      | 47.0      | 56.6                         | -3.5                          | 80.4                             | 6      | 36.0     | 19     | 3.97                | 11                        | +2.27                         | 2.12              | 23                                  | ..    |
| Rudstone, Methven      | 1,217                             | 64.1                                      | 45.2      | 54.6                         | (-4.1)                        | 80.0                             | 6      | 32.0     | 13     | 4.56                | 18                        | +1.62                         | 0.94              | 23                                  | ..    |
| Christchurch           | 22                                | 65.4                                      | 48.3      | 56.8                         | -3.9                          | 79.8                             | 23     | 37.3     | 20     | 2.19                | 16                        | +0.63                         | 0.76              | 12                                  | 199.3 |
| Lincoln                | 36                                | 66.7                                      | 47.1      | 56.9                         | -4.5                          | 79.7                             | 23     | 35.4     | 2      | 2.71                | 14                        | +1.13                         | 0.59              | 12                                  | 177.3 |
| Hermitage, Mount Cook  | 2,510                             | ..  | ..        | ..                           | ..                            | ..                               | ..     | ..       | ..     | ..                  | ..                        | ..                            | ..                | ..                                  | ..    |
| Ashburton              | 323                               | 65.1                                      | 43.2      | 54.2                         | (-5.7)                        | 77.3                             | 23     | 31.2     | 20     | 4.65                | 16                        | +2.53                         | 1.44              | 12                                  | 142.8 |
| Lake Tekapo            | 2,350                             | 62.9                                      | 41.3      | 52.1                         | (-4.2)                        | 75.0                             | 2      | 30.1     | 19     | 2.57                | 10                        | ..                            | 0.78              | 12                                  | 218.8 |
| Fairlie                | 1,000                             | 65.5                                      | 43.3      | 54.4                         | (-4.0)                        | 78.5                             | 6      | 31.3     | 20     | 3.45                | 14                        | ..                            | 0.80              | 7                                   | 169.0 |
| Timaru                 | 56                                | 65.4                                      | 47.6      | 56.5                         | -3.6                          | 78.4                             | 23     | 37.4     | 19     | 2.48                | 13                        | +0.69                         | 0.85              | 12                                  | 158.4 |
| Waimate                | 200                               | 65.2                                      | 47.4      | 56.3                         | -2.6                          | 79.0                             | 6, 23  | 40.0     | 18     | 2.50                | 13                        | +0.50                         | 0.99              | 7                                   | 131.2 |
| Milford Sound          | 23                                | 61.4                                      | 46.5      | 54.0                         | ..                            | 73.1                             | 25     | 38.5     | 21     | 13.75               | 16                        | ..                            | 3.39              | 6                                   | ..    |
| Queenstown             | 1,110                             | 64.6                                      | 45.7      | 55.2                         | (-3.8)                        | 78.2                             | 5      | 38.8     | 13     | 3.78                | 12                        | +1.81                         | 1.39              | 23                                  | 177.8 |
| Ophir                  | 1,000                             | 66.3                                      | 43.0      | 54.6                         | -5.4                          | 81.4                             | 5      | 29.9     | 20     | 3.37                | 10                        | +2.07                         | 1.69              | 23                                  | ..    |
| Waipiata               | 1,550                             | 63.8                                      | 42.3      | 53.0                         | -4.8                          | 79.6                             | 2      | 32.0     | 20     | 2.56                | 14                        | ..                            | 0.66              | 7                                   | 186.3 |
| Alexandra              | 520                               | 66.7                                      | 46.3      | 56.5                         | (-4.6)                        | 82.2                             | 2, 5   | 36.0     | 20     | 2.34                | 12                        | (+1.22)                       | 1.24              | 23                                  | 187.2 |
| Manorburn Dam          | 2,448                             | 57.9                                      | 38.8      | 48.4                         | (-4.9)                        | 73.0                             | 5      | 28.8     | 18     | 3.90                | 15                        | +2.18                         | 1.14              | 23                                  | ..    |
| Dunedin                | 240                               | 61.2                                      | 46.2      | 53.7                         | -4.2                          | 73.5                             | 3      | 37.8     | 20     | 7.15                | 16                        | +4.44                         | 2.02              | 23                                  | 146.1 |
| Gore                   | 245                               | 63.1                                      | 42.1      | 52.6                         | -4.9                          | 82.0                             | 5      | 34.0     | 20     | 8.70                | 18                        | +5.97                         | 1.87              | 23                                  | 131.9 |
| Invercargill           | 12                                | 59.2                                      | 45.6      | 52.4                         | -4.6                          | 77.0                             | 6      | 34.0     | 20     | 5.90                | 21                        | +2.72                         | 1.35              | 23                                  | 119.2 |

NOTE.—At stations where departures from normal are in parentheses the record has been maintained for less than ten years in the case of temperatures and for less than twenty years in the case of rainfall, and the normals are partly interpolated.