Climatological Table-Summary of the Records of Temperature, Rainfall, and Sunshine for December 1958-continued

| Station |  |  | Air Temperatures in Degrees (Fahrenheit) |  |  |  |  |  |  |  | Rainfall in Inches |  |  |  |  | Bright Sunshine |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Means of |  | $\begin{aligned} & \text { Mean } \\ & \text { of A } \\ & \text { and } \end{aligned}$ | Difference Normal$\qquad$ | Absolute Maximum and Minimum |  |  |  | $\underset{\text { Fall }}{\text { Total }}$ | $\left\|\begin{array}{c} \text { No. } \\ \text { of } \\ \text { Rain } \\ \text { Days } \end{array}\right\|$ | Difference $\xrightarrow{\text { From }}$ | $\underset{\text { Fall }}{\text { Maximum }}$ |  |  |
|  |  |  | $\underset{\text { Max. }}{\text { A }}$ | $\begin{gathered} \text { B } \\ \text { Min. } \end{gathered}$ |  |  | $\begin{aligned} & \text { Maxi- } \\ & \text { mum } \end{aligned}$ | Date | Mini- mum | Date |  |  |  | Amount | Date |  |
|  |  | Ft. | ${ }^{\circ} \mathrm{F}$. | ${ }^{\circ} \mathrm{F}$. | ${ }^{\circ} \mathrm{F}$. |  | ${ }^{\circ} \mathrm{F}$. |  | ${ }^{\circ} \mathrm{F}$. |  | In. |  |  | In. |  | Hrs. |
| Eyrewell |  | 520 | $72 \cdot 2$ | $49 \cdot 5$ | $60 \cdot 8$ |  | $88 \cdot 8$ | 19 | $35 \cdot 0$ | 6 | $3 \cdot 05$ | 13 | -0.55* | $0 \cdot 55$ | 7 |  |
| Franz Josef |  | 450 | $68 \cdot 7$ | $49 \cdot 0$ | $58 \cdot 8$ |  | $74 \cdot 5$ | 15, 21 | $42 \cdot 0$ | 20 | $27 \cdot 23$ | 20 |  | $7 \cdot 48$ | 7 |  |
| Ashley Forest |  | 350 | $69 \cdot 5$ | 51.0 | $60 \cdot 2$ | $+1 \cdot 1^{*}$ | $80 \cdot 4$ | 29 | $40 \cdot 4$ | 6 | $4 \cdot 15$ | 14 | +0.87* | $0 \cdot 81$ | 14, 15 |  |
| Darfield |  | 640 | $72 \cdot 6$ | $49 \cdot 1$ | $60 \cdot 8$ | $+1 \cdot 9$ | $87 \cdot 4$ | 22 | $36 \cdot 1$ | 6 | 2.78 | 13 | -0.07 | $0 \cdot 69$ | 14 |  |
| Christchurch Airport |  | 94 | $70 \cdot 5$ | $52 \cdot 4$ | $61 \cdot 4$ | $+2.6$ | $88 \cdot 0$ | 29 | $42 \cdot 9$ | 6 | $1 \cdot 50$ | 11 | $-0.90$ | 0.46 | 14 | 212 |
| Christchurch .. |  | 22 | 71.5 | $53 \cdot 0$ | $62 \cdot 2$ | +2.4 | $86 \cdot 7$ | 29 | $45 \cdot 5$ | 6 | $1 \cdot 47$ | 10 | $-1.07$ | $0 \cdot 52$ | 14 |  |
| Wigram |  | 74 | 71.3 | $52 \cdot 7$ | $62 \cdot 0$ | $+2 \cdot 0^{*}$ | $86 \cdot 2$ | 29 | $44 \cdot 6$ | 22 | $1 \cdot 31$ | 8 | $-1.08^{*}$ | $0 \cdot 45$ | 14 |  |
| Akaroa |  | 150 | $72 \cdot 8$ | $54 \cdot 1$ | $63 \cdot 4$ | $+3 \cdot 1$ | $90 \cdot 0$ | 29 | $45 \cdot 0$ | 6 | $1 \cdot 22$ | 10 | $-1 \cdot 48^{*}$ | $0 \cdot 28$ | 4 | 213 |
| Lincoln |  | 36 | 71.4 | $50 \cdot 4$ | $60 \cdot 9$ | +2.2 | $87 \cdot 1$ | 29 | $39 \cdot 1$ | 22 | 1.61 | 11 | $-0 \cdot 61$ | $0 \cdot 37$ | 14 | 222 |
| Highbank |  | 1,102 | $67 \cdot 3$ | 50.4 | $58 \cdot 8$ |  | $80 \cdot 1$ | 22 | $41 \cdot 6$ | 6 | 3.77 | 12 |  | 1.02 | 14 | 205 |
| The Hermitage |  | 2,510 | $62 \cdot 8$ | $46 \cdot 9$ | $54 \cdot 8$ | $+0.2$ | $75 \cdot 0$ | 10, 28 | $38 \cdot 0$ | 6 | $31 \cdot 80$ | 16 | +18.88 | 8.75 | 13 | 150 |
| Winchmore |  | 626 | $68 \cdot 6$ | 48.6 | $58 \cdot 6$ | $+0 \cdot 9$ | $83 \cdot 1$ | 22 | $40 \cdot 0$ | 6 | $2 \cdot 31$ | 10 | $-0.49$ | $0 \cdot 66$ | 14 |  |
| Haast |  | 15 | $64 \cdot 8$ | $51 \cdot 9$ | $58 \cdot 4$ | $+1.7 *$ | $75 \cdot 2$ | 24 | 41.8 | 5 | $14 \cdot 37$ | 20 | $+1.79 *$ | $2 \cdot 68$ | 7 | 164 |
| Ashburton |  | 323 | 71.8 | $48 \cdot 4$ | $60 \cdot 1$ | $+3.0$ | $86 \cdot 2$ | 29 | 37.0 | 6,7 | $2 \cdot 34$ | 8 | $-0.67$ | 0.76 | 14 | 182 |
| Fairlie |  | 1,004 | $67 \cdot 4$ | $45 \cdot 9$ | $56 \cdot 6$ | -0.5 | $82 \cdot 0$ | 22 | $31 \cdot 0$ | 6 | $3 \cdot 07$ | 15 | +0.18 | $1 \cdot 05$ | 16 |  |
| Timaru |  | 56 | $69 \cdot 7$ | $50 \cdot 4$ | $60 \cdot 0$ | $+1.3$ | 88.9 | 29 | $40 \cdot 0$ | 6 | 4•19 | 11 | +1.53 | $1 \cdot 14$ | 16 | 194 |
| Adair |  | 200 | $66 \cdot 1$ | $49 \cdot 7$ | 57.9 | +0.7* | $84 \cdot 2$ | 29 | $41 \cdot 1$ | 6 | 4.61 | 12 | +1.78* | $1 \cdot 31$ | 16 |  |
| Tara Hills, Omarama | . | 1,600 | $69 \cdot 0$ | $45 \cdot 9$ | 57.4 | -0.5* | 77.9 | 6,22 | $32 \cdot 6$ | 6 | $5 \cdot 82$ | 15 | +3.82* | $2 \cdot 28$ | 7 | 197 |
| Benmore, Otematata |  | 920 | $70 \cdot 1$ | $48 \cdot 8$ | $59 \cdot 4$ |  | $82 \cdot 0$ | 22 | $36 \cdot 0$ | 6 | $4 \cdot 24$ | 12 |  | $2 \cdot 07$ | 7 | . . |
| Milford Sound .. |  | 20 | $64 \cdot 4$ | $51 \cdot 3$ | $57 \cdot 8$ | $+2 \cdot 4$ | $78 \cdot 0$ | 24 | $43 \cdot 0$ | 5 | 18.93 | 17 | $-4.43$ | $5 \cdot 34$ | 12 |  |
| Waimate |  | 200 | $68 \cdot 5$ | $49 \cdot 4$ | $59 \cdot 0$ | $+1 \cdot 2$ | $86 \cdot 3$ | 29 | $41 \cdot 1$ | 6 | $4 \cdot 47$ | 18 | +1.54 | $1 \cdot 11$ | 7 | 153 |
| Naseby |  | 2,300 | $67 \cdot 3$ | $42 \cdot 0$ | $54 \cdot 6$ |  | $76 \cdot 7$ | 22 | $30 \cdot 2$ |  | $3 \cdot 56$ | 14 |  | $1 \cdot 48$ | 7 |  |
| Queenstown |  | 1,100 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cromwell |  | 720 | $73 \cdot 5$ | $50 \cdot 1$ | $61 \cdot 8$ | +1.6* | $83 \cdot 2$ | 28 | $37 \cdot 8$ | 6 | $2 \cdot 35$ | 13 | $+1 \cdot 07 *$ | $0 \because 42$ | 7 | $\cdots$ |
| Ophir |  | 1,000 | $71 \cdot 3$ | $47 \cdot 0$ | $59 \cdot 2$ | +0.9* | $83 \cdot 4$ | 22 | $33 \cdot 0$ | 6 | 1.85 | 11 | +0.03* | $0 \cdot 68$ | 16 |  |
| Moa Creek |  | 1,400 | $68 \cdot 9$ | $44 \cdot 1$ | $56 \cdot 5$ |  | 79•3 | 10 | 31.9 | 6, 9 | 2.05 | 12 |  | $0 \cdot 63$ | 16 |  |
| Earnscleugh |  | 500 | $72 \cdot 2$ | $49 \cdot 8$ | $60 \cdot 0$ | $+0 \cdot 4^{*}$ | $81 \cdot 2$ | 27 | $38 \cdot 0$ | 6,7 | 2.09 | 1 | +0.83* | $0 \cdot 50$ | 16 |  |
| Waipiata |  | 1,550 |  | $44 \cdot 3$ |  |  |  |  | $31 \cdot 0$ | 6 | $2 \cdot 88$ | 10 | +0.69 | $0 \cdot 69$ | 8 | 183 |
| Alexandra |  | 520 | $72 \cdot 6$ | $50 \cdot 6$ | 61.6 | $+1 \cdot 4$ | 81.9 | 10 | $41 \cdot 2$ | 9 | $2 \cdot 21$ | 10 | $+0.91$ | $0 \cdot 53$ | 16 | 208 |
| Garston |  | 1,009 | $69 \cdot 7$ | $47 \cdot 1$ | 58.4 |  | 78.9 | 10 | $33 \cdot 2$ | 20 | 2.99 | 14 |  | $0 \cdot 87$ | 7, 22 |  |
| Roxburgh Hydro | . | 350 | $70 \cdot 7$ | $46 \cdot 9$ | $58 \cdot 8$ |  | $79 \cdot 0$ | 6 | $33 \cdot 0$ | 6 | 2.78 | 10 | $+0.97$ | 0.70 | 22 |  |
| Mid Dome |  | 1,252 | $67 \cdot 6$ | $46 \cdot 9$ | $57 \cdot 2$ |  | $75 \cdot 0$ | 25 | $36 \cdot 7$ | 6 | $3 \cdot 76$ | 14 |  | $1 \cdot 04$ | 7 |  |
| Moa Flat, West Otago | . | 1,345 | 63.6 | $44 \cdot 3$ | $54 \cdot 0$ |  | 71.9 | 10 | 37.2 | 9 | 3.44 | 15 | +0.48* | 0.81 | 7 |  |
| Taieri . $\quad . \quad$. |  | 80 | $66 \cdot 7$ | $46 \cdot 6$ | $56 \cdot 6$ | $+0.6$ | $79 \cdot 8$ | 29 | $35 \cdot 2$ | 9 | $2 \cdot 19$ | 12 | -0.37 | $0 \cdot 46$ | 16 | 187 |
| Musselburgh, Dunedin |  | 550 | $66 \cdot 6$ | $46 \cdot 2$ | 56.4 |  | 75.8 | 18 | $37 \cdot 6$ | 9 | $3 \cdot 16$ | 11 |  | 0.76 | 7 | . |
| East Gore | $\cdots$ | 245 | $67 \cdot 5$ | $48 \cdot 2$ | $57 \cdot 8$ | $+1.5$ | 77.0 | 18, 20 | $38 \cdot 0$ | 6,9 | $3 \cdot 21$ | 11 | $+0 \cdot 13$ | $1 \cdot 08$ | 22 |  |
| Gore | $\cdots$ | 240 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Otautau | . | 180 | $64 \cdot 3$ | $47 \cdot 3$ | $55 \cdot 8$ | +0.4* | $72 \cdot 0$ | 26 | $35 \cdot 0$ | 6 | 2. 52 | 13 | $+0 \cdot 50$ * | $0 \cdot 80$ | 7 | 173 |
| Pebbly Hills | . | 150 | $67 \cdot 0$ | $47 \cdot 7$ | $57 \cdot 4$ |  | $75 \cdot 0$ | 20 | $36 \cdot 0$ | 9 | $3 \cdot 37$ | 16 | -0.15* | 0.96 | 7 |  |
| Invercargill |  | 8 | $64 \cdot 2$ | $49 \cdot 8$ | $57 \cdot 0$ | $+1 \cdot 2$ | $74 \cdot 1$ | 18 | $30 \cdot 0$ | 6 | $3 \cdot 33$ | 14 | -0.35* | 0.79 | 7 |  |
| Invercargill Airfield | . | 0 | $62 \cdot 7$ | $47 \cdot 6$ | $55 \cdot 2$ | $+0 \cdot 2^{*}$ | $71 \cdot 2$ | 11 | $35 \cdot 0$ | 9 | $3 \cdot 30$ | 15 | -0.30* | $0 \cdot 77$ | 7 | 187 |

## LATE RETURNS



Note-At stations where departures from normal have an asterisk, the temperature record has been maintained for less than ten years, the rainfall record for less than twenty years. Rainfall normals have been revised and now refer to the standard period 1921-50. Where observations are not available for the whole period, or where the site of the rain gauge has been changed, the normals are partly interpolated.

## Notes on the Weather for December 1958

General: Warm, unsettled weather predominated throughout December. Over most of the North Island it was very dull and wet, but it was much sunnier in eastern and southern districts of the South Island. In Canterbury more rain would have been welcomed in order to offset the effects of the very dry spring. It was a good month for dairy production, and cattle were reported to be in good condition. In some parts of the North Island conditions were too wet for sheep, and lambs have not fattened well; blowfly strike was also causing some trouble. Heavy rains in the Taupo catchment area brought to an end a long period of electricpower restrictions.
A north-westerly gale caused some damage in Christchurch and other parts of Canterbury on the 12th.
Rainfall: It was a very wet month over the North Island (except the Gisborne district) and in Nelson, few places having less than double the normal rainfall. From Taranaki across to Rotorua and Taupo, with rainfall three or four times the average, it was the wettest December on record. The only serious flooding occurred on Christmas Eve, when slips and washouts disrupted road and rail traffic in the centre of the Island.
Over most of the South Island and in the Gisborne district rainfall was a little above average, but in mid-Canterbury and near the south-east coast it did not quite reach the average.
In a thunderstorm on the 16th in the Levin-Otaki area hailstones as large as half an inch in diameter caused serious damage to fruit crops.

Temperatures: Temperatures were about $3^{\circ}$ above normal in the North Island and in the northern part of the South Island. From there the departure from average gradually decreased southwards and was only about $\frac{1}{2}^{\circ} \mathrm{F}$. on the Southland coast.

Sunshine: Sunshine totals were very low except in eastern and southern districts of the South Island, where they were close to average. In central and northern districts of the North Island the deficiency amounted to about $2 \frac{1}{2}$ hours a day, making it one of the cloudiest Decembers on record in that area. New Plymouth, Rotorua, and Tauranga have not previously recorded such low December totals.
Weather Sequence: For the first few days an active trough of low pressure moved slowly over the South Island causing widespread rain. It became quite weak by the time it reached the North Island on the 4th. Next day there was some further brief rain in the South Island during the passage of a cold front.
After an anticyclone had brought temporary improvement on the 6th, another very active trough accompanied by a broad belt of rain began to pass slowly across the country. A low pressure centre formed within the trough to the west of the North Island on the 8th and, though it did not deepen to any great extent, it caused widespread prolonged rainfall over most of the North Island for several days.
With the approach of a deep and extensive disturbance across the Tasman Sea rain again developed on the West Coast on the 10th and later spread for a time to other districts of the South Island. The main centre of this disturbance passed to the south on the 13th but another soon developed over the Cook Strait area and moved slowly southwards to pass off the South Island on the 19th. During this very unsettled period from the 11th to the 19th heavy and persistent rains affected the greater part of the North Island, especially the central plateau. East of the South Island ranges falls were relatively light.

