

U. S. DEPARTMENT OF AGRICULTURE.

*Feb. 16, 1899.*

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ANNUAL SUMMARY 1898.

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OREGON SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU.

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UNDER DIRECTION OF

WILLIS L. MOORE

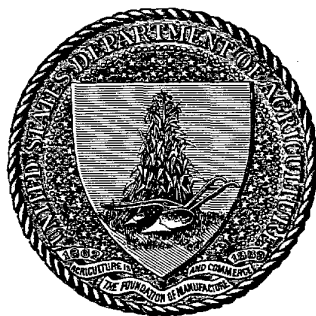
CHIEF OF WEATHER BUREAU

BY

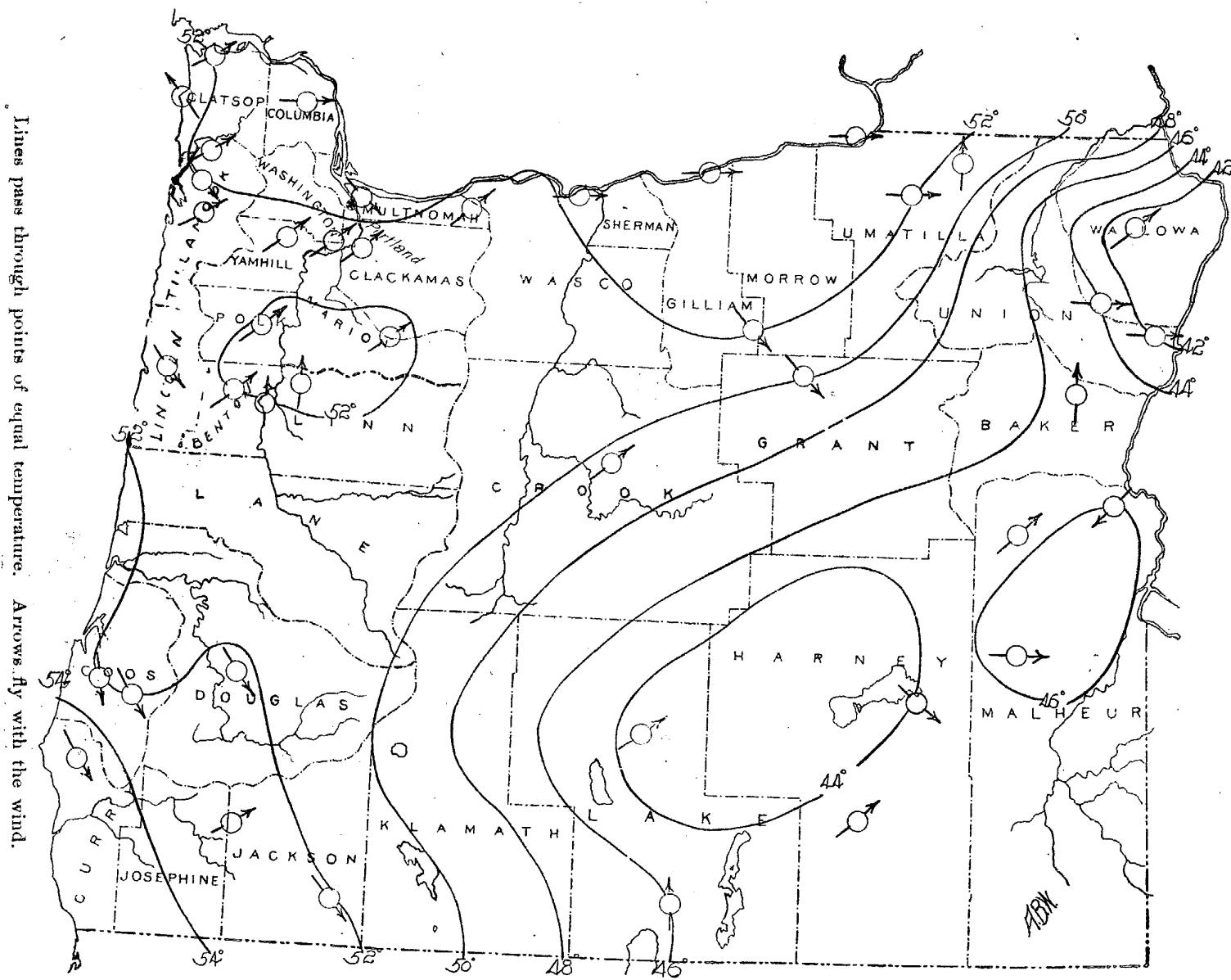
B. S. PAGUE,

SECTION DIRECTOR.

PORTLAND, OREGON.



ANNUAL MEAN ISOTHERMS AND PREVAILING WIND DIRECTION, YEAR, 1898.



Lines pass through points of equal temperature. Arrows fly with the wind.

# U. S. DEPARTMENT OF AGRICULTURE, CLIMATE AND CROP SERVICE

OF THE

## WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

### OREGON SECTION,

B. S. PAGUE, Section Director,

PORTLAND, OREG.

#### OREGON WEATHER IN 1898.

##### TEMPERATURE.

The average for the State is 50.7°. The highest mean is 55.2° at Langlois, Curry county, the extreme southwestern county of the State, and the lowest mean is 41.4°, at Joseph, Wallowa county, the extreme northeastern county of the State. The maximum for the year is 119°, at Pendleton, Umatilla county, elevation 1,070 feet, and at Prineville, Crook county, elevation 3,000 feet, and the minimum is 21° below zero, at Burns, Harney county. The maximum and minimum both occurred in the Plateau district.

##### PRECIPITATION.

The average for the State is 31.51 inches. The largest amount that occurred is 120.90 inches (slightly more than 10 feet), at Bay City, Tillamook county; the least amount is 4.55 inches (slightly more than one-third of a foot), at Riverside, Malheur county, and 4.58 inches, at Umatilla, Umatilla county. The greatest amount that fell in any month is 29.39 inches, at Bay City, in February. Grant's Pass, Williams, Burns and Klamath Falls had none in July. Generally less than one-quarter of an inch fell in July. The total depth of unmelted snowfall varies from 0 along the coast to 148 inches at Sparta, in the Blue Mountains of Union county. At Government Camp, on the southwestern base of Mount Hood, which is perpetually covered with snow, the total snowfall is 381 inches. Precipitation occurred on from 30 days at Riverside, Malheur county, to 252 days at Bay City.

##### WIND.

The prevailing direction of the wind was from the southwest. Winds from the west and northwest were frequent.

While the foregoing is a brief resume of the weather conditions in the State during the year yet it does not convey a proper idea of what the weather was, except in a very general or abstract manner. This is owing to the various climatic divisions of the State, produced by the physical conditions. For convenience in discussing the weather conditions in Oregon, the State is divided into five districts, the Coast, Willamette valley, southern Oregon, Columbia River valley and the Plateau district, and are thus described:

The Coast consists of that section of the State west of the Coast range of mountains. The Willamette valley contains about six million acres of land and lies between the Coast and Cascade mountains and extends from the Columbia River southward to the Calapooya mountains, a distance of about 160 miles. Southern Oregon should really be called the southwestern counties; it embraces Douglass, Josephine and Jackson counties. The Columbia River valley, as here used, consists of that portion of the State extending from where the Columbia River passes through the Cascade mountains, called Cascade Locks, eastward, embracing the northern portion of Wasco, Sherman, Gilliam, Morrow and practically all of Umatilla county. The Plateau district comprises about one-half the area of the State and it is that

portion east of the Cascade mountains and south of the Columbia River valley. This district has an elevation of from two to five thousand feet.

The weather, for the year, in these districts was as follows:

| DISTRICT.                  | Temperature. |      |      | Precipitation. |                   |
|----------------------------|--------------|------|------|----------------|-------------------|
|                            | Mean.        | Max. | Min. | Average.       | Greatest Monthly. |
| Coast.....                 | 52.0         | 100  | 18   | 73.11          | 29.39             |
| Willamette Valley.....     | 51.2         | 105  | 13   | 47.75          | 12.65             |
| Southern Oregon.....       | 52.2         | 106  | 13   | 19.02          | 6.21              |
| Columbia River Valley..... | 51.8         | 119  | -6   | 13.35          | 7.35              |
| Plateau District.....      | 46.2         | 119  | -21  | 10.32          | 6.01              |

The mean temperature for the year was above the normal and the precipitation was below the normal. The maximum temperatures for the year are the highest on record. Lower minimums have occurred, but those were abnormal. During the heated period farm and other out-door work proceeded without interruption. The air was, as it always is when high temperatures prevail, very dry. Dry air produces rapid evaporation, hence a cooling effect, thus preventing sunstrokes and heat prostration. During the heated period the night temperatures averaged about 70°.

The climate of Oregon is healthful and favorable for the production of all products known to the temperate zone.

**THE WEATHER** JANUARY was mild and comparatively dry.

**BY MONTHS.** The weather was cooler than usual in southern Oregon and the Plateau district, while in the Willamette and Columbia River valleys it was warmer than usual. In all districts the precipitation was deficient. Mean temperature, 34.3°; maximum, 64°; minimum, -21°; average precipitation, 3.87 inches.

FEBRUARY had mild temperatures and nearly normal precipitation. Mean temperature, 41.5°; maximum, 72°; minimum, -6°. Freezing temperatures occurred at all stations, except along the Coast. Average precipitation, 4.61 inches. Little or no snow fell west of the Cascades, while from a trace to 17 inches fell east of them.

MARCH was deficient in temperature and precipitation. Less rain fell than in any other March on record. Frosts were frequent, but of no injury. Mean temperature, 39.9°; maximum, 74°; minimum, -4°; average precipitation, 2.05 inches. Snow fell west of the Cascades, ranging from a trace to 4.3 inches, east of them from a trace to 16 inches. The mean temperature was 1.6° lower than in February.

APRIL was warm and dry. Less rain fell than in any April since 1890. Mean temperature, 50.1°; maximum, 92°; minimum, 8°. Freezing temperatures occurred on the 2nd, 3rd, 4th, 10th, and 18th. Average precipitation, 1.78 inches. No snow fell west of the Cascades; from a trace to 9 inches fell east of them.

MAY opened warm and dry. From the 14th rain fell upon nearly every day. Mean temperature, 53.9°; maximum, 93°; minimum, 19°. Frosts occurred on various dates, but no injury resulted. Average precipitation, 2.18 inches, which is nearly the normal. At Fort Klamath, Baker City and Joseph one inch of snow fell.

JUNE had pleasant and auspicious weather, just the temperature and showers of rain necessary for crops. Mean temperature, 62.2°; maximum, 99°; minimum, 23°; average precipitation, 1.22 inches. A few frosts occurred over the Plateau district, but no damage resulted.

JULY had showers up to the 15th, when the real dry season set in. There was an entire absence of hot northeasterly winds. Mean temperature, 66°; maximum, 119°, highest on record in Oregon; minimum, 29°. On the 29th, 30th and 31st, a very warm period occurred, the maximum temperature being 100° and over at many places. Average precipitation, 0.46 of an inch.

AUGUST had phenomenally high temperatures during the fore part of the month. Maximum temperatures of 100° and over were generally reported. Mean temperature, 68.2°; maximum, 119°; minimum, 30°; average precipitation, 0.36 of an inch. General light rain fell on the 29th, 30th and 31st.

SEPTEMBER opened with general rains, which ceased on the 3d, beginning again on the 19th and continuing. Mean temperature, 60°; maximum, 103°; minimum 30°. The month was one of the warmest Septembers on record. Average precipitation, 1.24 inches.

OCTOBER was cool and dry. Mean temperature, 49.5; maximum, 84°; minimum, 11°; average precipitation, 2.01 inches. A few snow flurries occurred over the Plateau district.

NOVEMBER was cool and wet. Mean temperature, 41°; maximum, 73°; minimum, zero; average precipitation, 6.76 inches. A trace of snow fell west of the Cascades and from one to ten inches fell east of them.

DECEMBER was cool and dry. Mean temperature, 34.4°; which is lower than any former record, except in 1889, when it was 34.3°; maximum, 70°; minimum, 10°; average precipitation, 4.00 inches, except on the 5th and 12th. Light showers or snow flurries occurred on nearly every day of the month.

#### REVIEW OF WEATHER AND CROP CONDITIONS IN OREGON, 1898.

The autumn of 1897 and winter of 1897-'98, were very favorable to agricultural operations; plowing and seeding were prosecuted every month. Stock wintered well; fall and winter sown grain were in better condition than usual when the spring seeding began in March and April. During the winter season many new orchards of apple, pear, prune and peach trees were set out. The 1st of April found farm work well advanced, a much larger acreage of grain sown than usual, and the grain in a growing, thrifty state. During the month of April the weather was warm and dry. Fruit bloom was general during the month and no cold rains to destroy it. Maple, oak and quince trees came into leaf during the first week. Gardens were made during the fore part of the month. Grass made a good growth. Spring seeding was generally finished by the 20th. Lambing and shearing were in progress during the month. General rain fell the last week of the month, which was of great benefit. At the close of the month alfalfa was 16 inches high; clover and timothy were making rapid growth. Early blooming fruit was well set. Corn and potato planting in progress. The condition of the grain crop was never before more satisfactory.

The month of May was dry up to the 14th, when general showers commenced, continuing to June 2. Little or no rain fell from April 26 to May 14, and injury to the crops was feared. On May 9 the "WEEKLY CLIMATE AND CROP BULLETIN" contained the following:

"The barometric conditions peculiar to the winter season continue, and it is almost absolutely certain that rain will fall; that it will be copious and general before the summer or dry season sets in."

The information was of great relief to farmers and merchants, for they felt that the temporary drouth would be broken. The dry weather decreased hay and spring grain prospects, but the rains from May 14 changed the then unfavorable prospects, and the month closed with the most flattering prospects for all crops. Strawberries, green peas and gooseberries were in the market May 16. Cherries were ripe May 23. Clover was in blossom May 23. A peculiar and unexplained condition existed in hop yards. When the hops came up in March, many hills, about one in six to ten, failed to show life; it was hoped that they would yet come up, but the missing hills continued. Except for this defect, the hops were in excellent condition.

Dry, warm weather prevailed from June 2 to 11, when showers set in, which continued to the 22nd, when dry weather again prevailed. The weather was ideal for crops of all kinds. The temperature forced growth and the rains gave sustenance. The rain delayed haying, but was of great benefit, for it revived that which the dry weather of May injured.

Fall sown wheat headed about the middle of June. Royal Anne cherries were ripe on June 24. Flax for fibre, sown during April, was pulled the latter part of June; it had a length of 36 inches. Sugar beets and hemp made excellent progress. The close of June found crops in better condition than usual.

July had a few showers, especially on the 10th and 22nd. There was an entire absence of hot northeast winds. The last week of the month was warm. Heading and harvesting of fall sown grain commenced about July 4. Early peaches were ripe July 4. By the middle of July the harvest of the grain crop was general. Lice on hops appeared July 1. Corn was in tassel July 18. By July 25 haying was about completed. The grain crop yielded well. The fruit crop was never better. Range food was drying up by the close of the month. Vegetables made good growth.

August was warm and dry up to the 29th, when showers prevailed for three days. The fore part of the month was unusually warm. Harvesting progressed during the month without interruption. The grain crop was unusually good east of the Cascades and about an average west of them. The warm, dry weather destroyed a large percentage of the hop lice. Peaches, watermelons and blackberries were plentiful about August 1. Prunes were ripening about the 20th. Bartlett pears were picked about the 22nd. Hop picking commenced August 25. August closed with farm work well advanced and all crops in a better condition than for years.

September had normal temperatures and fair weather to the 19th, when rain began, which continued in the form of showers. These showers were really the commencement of the winter rains. The rains started the grass and put the ground in good condition for plowing. East of the Cascades many farmers sowed grain in the dust, the rains coming later covering it up. The hop crop was picked before the rains commenced. The hops were clean and of good quality. Prune drying was active during the entire month. The close of September found all crops practically secured and fall plowing and seeding well under headway.

The season throughout was favorable. The hay crop was large. The grain crop was never better. Hops were cleaner than usual and fully an average in quantity. The fruit crop was the largest so far in the history of the State. Berries and vegetables were never better. Stock had plenty of feed and is in good condition. Sugar beets developed an unusually high percentage of saccharine matter and purity. The first sugar ever made in Oregon was made in October at the new sugar factory in La Grande from beets grown in the Grand Ronde valley, Union county. Flax and hemp made fine growth and fibre equal to the best in the world.

There is not a single really adverse condition, weather or crop, for the season of 1898 to chronicle in the State of Oregon.

#### CHANGES IN CENTRAL OFFICE DURING THE YEAR.

During the year the entire force at the central office was changed. The office force at the close of the year consists of:

Mr. B. S. Pague, forecast official in charge, and the following assistants: Mr. Arthur B. Wollaber, Mr. Frank E. Pyne, Mr. Dexter C. Grunow, Mr. Herbert C. Merrill, Mr. George D. Boucher, Miss Idelle M. Robinson, Mr. Louis Ruhl.

## Climatological Data for the Year 1898.

| Stations.                  | Counties.         | Elevation, feet. | Temperature (degrees Fahrenheit). |              |          |         |         | Precipitation (inches). |                          |                     |                   |        |                |        | Sky.            |                    |                    |                            |                     | Prevailing direction of wind. |
|----------------------------|-------------------|------------------|-----------------------------------|--------------|----------|---------|---------|-------------------------|--------------------------|---------------------|-------------------|--------|----------------|--------|-----------------|--------------------|--------------------|----------------------------|---------------------|-------------------------------|
|                            |                   |                  | Length of record, years.          | Annual mean. | Highest. | Date.   | Lowest. | Date.                   | Length of record, years. | Total for the year. | Greatest monthly. | Month. | Least monthly. | Month. | Total snowfall. | Number rainy days. | Number clear days. | Number partly cloudy days. | Number cloudy days. |                               |
| <b>COAST DISTRICT.</b>     |                   |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Astoria                    | Clatsop           | 50               | 38                                | 51.7         | 90       | June 6  | 27      | Jan. 25                 | 38                       | 68.72               | 14.61             | Feb.   | 0.30           | Aug.   | 3.7             | 176                | 87                 | 78                         | 200                 | sw.                           |
| Bandon                     | Coos              | 55               | 26                                | 52.0         | 74       | June 5  | 28      | Jan. 10                 | 26                       | 50.27               | 12.35             | Nov.   | 0.11           | July   | 0.0             | 146                | 113                | 63                         | 189                 | n.                            |
| Bay City                   | Tillamook         | 225              | 2                                 | 51.6         | 93       | June 5  | 24      | Jan. 23                 | 2                        | 120.90              | 29.39             | Feb.   | 0.87           | Aug.   | 6.3             | 252                | 46                 | 80                         | 239                 | n.w.                          |
| Coquille River L. H.       | Coos              |                  |                                   |              |          |         |         |                         | 1                        |                     |                   |        | T.             | July   | 0.0             |                    |                    |                            |                     |                               |
| Fairview                   | Coos              |                  | 1                                 | 51.8         | 95       | June 4  | 21      | Dec. 10                 | 1                        | 66.37               | 14.13             | Nov.   | 0.52           | July   | 26.0            | 132                | 137                | 86                         | 142                 | n.w.                          |
| Fort Canby                 | Wash. Pacific     | 179              | 34                                | 50.7         | 87       | Aug. 23 | 30      | Jan. 24                 | 34                       | 59.84               | 12.49             | Feb.   | 0.62           | Aug.   | 2.1             | 218                | 75                 | 81                         | 209                 | n.                            |
| Gardiner                   | Douglas           | 72               | 10                                | 52.4         | 91       | June 5  | 28      | Jan. 24                 | 10                       | 66.60               | 15.00             | Nov.   | 0.26           | July   | 0.0             | 145                |                    |                            |                     |                               |
| Glenora                    | Tillamook         |                  | 7                                 | 50.2         | 100      | Aug. 5  | 18      | Jan. 25                 | 7                        | 107.97              | 23.86             | Feb.   | 0.57           | Aug.   | 39.5            | 171                | 114                | 43                         | 178                 | sw.                           |
| Langlois                   | Curry             | 250              | 8                                 | 55.2         | 92       | June 5  | 27      | Dec. 12                 | 8                        | 81.79               | 22.12             | Feb.   | 0.23           | July   | 0.0             | 118                | 108                | 236                        | 21                  | n.w.                          |
| Nehalem                    | Tillamook         |                  |                                   |              |          |         |         |                         | 1                        | 100.76              | 21.00             | Feb.   | 0.67           | Aug.   | 8.5             | 202                | 105                | 131                        | 129                 | sw.                           |
| Newport                    | Lincoln           | 69               | 10                                | 50.9         | 91       | June 5  | 27      | Feb. 6                  | 10                       | 63.73               | 13.01             | Feb.   | 0.55           | Aug.   | 1.0             | 186                | 129                | 37                         | 199                 | n.w.                          |
| Tillamook Rock             | Clatsop           | 146              |                                   |              |          |         |         |                         | 9                        | 37.14               | 6.91              | Feb.   | 0.18           | Aug.   | 0.0             |                    |                    |                            |                     | se.                           |
| Toledo                     | Lincoln           | 30               | 10                                |              | 95       | Aug. 23 |         |                         | 10                       | 11.15               | 11.15             | Nov.   | 0.30           | Aug.   | 6.4             |                    |                    |                            |                     |                               |
| Crescent City              | Cal. Del Norte    |                  | 1                                 | 55.5         | 81       | June 4  | 28      | Jan. 10                 | 1                        | 53.26               | 13.00             | Feb.   | 0.33           | July   | T.              | 106                | 122                | 82                         | 161                 | n.w.                          |
| <b>WILLAMETTE VALLEY.</b>  |                   |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Albany                     | Linn              | 214              | 22                                | 53.2         | 97       | Aug. 5  | 18      | Dec. 12                 | 22                       | 36.22               | 7.88              | Nov.   | 0.40           | July   | 4.5             | 107                | 163                | 39                         | 163                 | s.                            |
| Corvallis                  | Benton            | 319              | 10                                | 51.8         | 99       | July 30 | 18      | Dec. 11                 | 10                       | 35.00               | 8.63              | Nov.   | 0.12           | Aug.   | 6.5             | 157                | 132                | 96                         | 137                 |                               |
| Eugene                     | Lane              | 435              | 9                                 |              |          |         |         |                         | 9                        |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Falls City                 | Polk              |                  | 2                                 | 50.6         | 96       | July 31 | 17      | Dec. 12                 | 2                        | 60.57               | 12.65             | Feb.   | 0.34           | July   | 8.6             | 176                | 134                | 54                         | 177                 | sw.                           |
| Forest Grove               | Washington        | 229              | 10                                |              |          |         |         |                         | 10                       | 32.77               | 7.81              | Feb.   |                |        | 12.0            |                    |                    |                            |                     |                               |
| Government Camp            | Multnomah         | 3,580            | 2                                 | 42.0         | 95       | Aug. 9  | 2       | Jan. 10                 | 2                        | 87.93               | 19.83             | Nov.   | 0.80           | Aug.   | 381.0           | 152                | 123                | 113                        | 129                 | sw.                           |
| Irvington (nr Portland)    | Multnomah         | 75               | 11                                |              | 99       | Aug. 5  | 20      | Dec. 13                 | 11                       | 30.47               | 7.07              | Nov.   | 0.07           | Aug.   |                 | 65                 | 204                | 96                         |                     |                               |
| McMinnville                | Yamhill           | 180              | 11                                | 51.8         | 101      | Aug. 5  | 12      | Jan. 25                 | 11                       | 38.93               | 7.75              | Nov.   | 0.70           | July   | 3.3             | 162                | 93                 | 84                         | 188                 | sw.                           |
| Miramonte Farm             | Clackamas         | 195              | 10                                | 51.4         | 99       | Aug. 5  | 17      | Dec. 12                 | 10                       | 36.21               | 6.62              | Nov.   | T.             | Aug.   | 2.3             | 150                | 123                | 115                        | 127                 | sw.                           |
| Monmouth                   | Polk              |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Monroe                     | Benton            |                  |                                   | 52.1         | 98       | July 29 | 19      | Dec. 12                 | 1                        | 36.67               | 11.13             | Nov.   | 0.29           | July   | 11.5            | 139                | 135                | 64                         | 166                 | sw.                           |
| Mt. Angel                  | Marion            | 140              | 13                                | 52.6         | 100      | July 30 | 18      | Dec. 13                 | 13                       | 42.23               | 9.18              | Nov.   | 0.15           | Aug.   | 1.2             | 162                | 87                 | 122                        | 156                 | sw.                           |
| Newberg                    | Yamhill           | 400              | 8                                 | 51.3         | 103      | Aug. 5  | 14      | Jan. 24                 | 8                        | 37.99               | 7.57              | Feb.   | 0.29           | Aug.   | 2.7             | 136                |                    |                            |                     | sw.                           |
| Portland                   | Multnomah         | 153              | 31                                | 52.6         | 97       | Aug. 5  | 21      | Dec. 12                 | 31                       | 33.90               | 6.03              | Nov.   | 0.15           | Aug.   | 8.8             | 142                | 119                | 120                        | 126                 | n.w.                          |
| Salem                      | Marion            | 120              | 10                                | 51.3         | 98       | Aug. 5  | 16      | Dec. 12                 | 10                       | 34.19               | 6.82              | Nov.   | 0.06           | Aug.   | 6.0             | 127                | 148                | 118                        | 99                  |                               |
| Stafford                   | Clackamas         |                  | 2                                 | 53.3         | 102      | Aug. 6  | 19      | Dec. 12                 | 2                        | 41.48               | 7.75              | Nov.   | 0.01           | Aug.   | 3.9             | 165                |                    |                            |                     |                               |
| Vancouver                  | Wash. Clarke      |                  |                                   | 51.5         | 97       | Aug. 5  | 13      | Dec. 12                 |                          |                     |                   |        | 0.18           | Aug.   |                 |                    |                    |                            |                     | w.                            |
| Vernonia                   | Columbia          | 1,238            | 10                                |              | 105      | Aug. 5  | 13      | Dec. 11                 | 10                       |                     |                   |        | 0.05           | Aug.   |                 |                    |                    |                            |                     |                               |
| <b>SOUTHERN OREGON.</b>    |                   |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Ashland                    | Jackson           | 1,940            | 14                                | 52.1         | 104      | July 29 | 13      | Jan. 26                 | 14                       | 15.57               | 3.86              | Nov.   | 0.22           | July   | 10.6            | 83                 |                    |                            |                     | d.w.                          |
| Beckhorn Farm              | Josephine         |                  | new                               |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Grant's Pass               | Josephine         | 964              | 10                                | 53.0         | 106      | July 30 | 15      | Dec. 11                 | 10                       | 17.77               | 3.87              | Nov.   | 0.00           | July   | 11.0            | 88                 |                    |                            |                     | sw.                           |
| Jacksonville               | Jackson           | 1,640            | 10                                | 52.0         | 100      | July 29 | 15      | Jan. 26                 | 10                       | 17.84               | 4.82              | Nov.   | 0.03           | July   | 1.6             | 95                 | 192                | 85                         | 88                  |                               |
| Placer                     | Josephine         |                  |                                   |              |          |         |         |                         |                          |                     |                   |        | 0.01           | July   |                 |                    |                    |                            |                     | n.w.                          |
| Roseburg                   | Douglas           | 523              | 22                                | 52.6         | 101      | July 29 | 20      | Dec. 12                 | 22                       | 25.93               | 6.21              | Nov.   | 0.03           | July   | 27.0            | 133                | 118                | 118                        | 129                 | n.w.                          |
| Williams                   | Josephine         |                  | 7                                 | 52.5         | 100      | July 30 | 14      | Dec. 10                 | 7                        | 18.00               | 4.40              | Nov.   | 0.00           | July   | 7.0             | 95                 | 165                | 102                        | 98                  |                               |
| <b>COLUMBIA RIVER VAL.</b> |                   |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Arlington                  | Gilliam           | 855              | 8                                 | 53.6         | 109      | Aug. 10 | 1       | Dec. 13                 | 8                        | 5.33                | 1.12              | Nov.   | 0.04           | July   | 7.0             | 55                 |                    |                            |                     | w.                            |
| Blacks                     | Gilliam           |                  | new                               |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Cascade Locks              | Wasco             | 125              | 8                                 | 52.2         | 96       | Aug. 5  | 15      | Dec. 12                 | 8                        | 60.73               | 14.48             | Feb.   | 1.20           | Nov.   | 9.0             | 160                | 129                | 105                        | 131                 | w.                            |
| Ella                       | Morrow            |                  |                                   |              |          |         |         |                         | new                      |                     |                   |        |                |        |                 |                    |                    |                            |                     | sw.                           |
| Hedder                     | Morrow            | 1,950            | 9                                 | 49.0         | 110      | Aug. 10 | —6      | Dec. 11                 | 9                        | 11.42               | 2.38              | Nov.   | 0.09           | July   | 21.9            | 84                 |                    |                            |                     | w.                            |
| Hood River (near)          | Wasco             | 920              | 8                                 | 50.4         | 96       | Aug. 1  | 7       | Dec. 13                 | 8                        | 31.07               | 7.35              | Nov.   | 0.09           | Aug.   | 23.5            | 130                |                    |                            |                     | w.                            |
| Moro                       | Sherman           |                  |                                   |              |          |         |         |                         | 1                        |                     |                   |        |                |        |                 |                    |                    |                            |                     | w.                            |
| Pendleton                  | Umatilla          | 1,070            | 10                                | 52.4         | 119      | Aug. 10 | —5      | Dec. 13                 | 10                       | 11.23               | 2.68              | Nov.   | 0.06           | Aug.   | 9.0             | 77                 | 155                | 92                         | 118                 | w.                            |
| The Dalles                 | Wasco             | 116              | 25                                | 53.4         | 103      | Aug. 10 | 7       | Dec. 13                 | 25                       | 7.58                | 2.13              | Nov.   | 0.02           | Aug.   | 5.0             | 70                 | 165                | 55                         | 145                 | w.                            |
| Umatilla                   | Umatilla          | 340              |                                   |              |          |         |         |                         | 11                       | 4.58                | 1.21              | Nov.   | T.             | July   | 6.8             | 59                 |                    |                            |                     | s.                            |
| Walla Walla                | Wash. Walla Walla | 1,018            | 37                                | 53.2         | 113      | Aug. 10 | —2      | Dec. 12                 | 37                       | 16.34               | 3.74              | Nov.   | 0.22           | July   | 19.5            | 109                | 143                | 162                        | 60                  | w.                            |
| Weston                     | Umatilla          | 1,800            | 9                                 | 50.6         | 110      | Aug. 10 | —5      | Dec. 12                 | 9                        | 19.23               | 5.24              | Nov.   | 0.13           | July   | 37.6            | 80                 | 183                | 78                         | 104                 | s.                            |
| <b>PLATEAU DISTRICT.</b>   |                   |                  |                                   |              |          |         |         |                         |                          |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Baker City                 | Baker             | 3,470            | 10                                | 45.1         | 101      | Aug. 10 | —4      | Jan. 24                 | 10                       | 8.52                | 2.17              | May    | 0.30           | July   | 33.1            | 102                | 117                | 105                        | 143                 | s.                            |
| Beulah                     | Malheur           | 4,400            | 9                                 | 44.9         | 105      | Aug. 11 | —19     | Jan. 24                 | 9                        | 5.63                | 1.39              | Nov.   | T.             | Aug.   | 18.5            | 45                 | 203                | 121                        | 41                  | sw.                           |
| Burns                      | Harney            |                  | 9                                 | 42.2         | 102      | Aug. 9  | —21     | Jan. 22                 | 9                        |                     |                   |        | 0.00           | July   |                 |                    |                    |                            |                     |                               |
| Canyon City                | Grant             |                  |                                   |              |          |         |         |                         | 6                        |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Dayville                   | Grant             |                  | 4                                 | 50.1         | 105      | Aug. 10 | —5      | Jan. 24                 | 4                        | 7.39                | 1.25              | Jan.   | 0.05           | July   | 9.3             | 63                 | 179                | 146                        | 40                  | n.w.                          |
| Fife                       | Crook             | 3,375            | 7                                 |              |          |         |         |                         | 7                        |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Fort Klamath               | Klamath           | 4,275            | 26                                |              |          |         |         |                         | 26                       |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Happy Valley               | Harney            | 4,200            | 9                                 | 43.5         | 102      | Aug. 10 | —13     | Jan. 26                 | 9                        | 10.19               | 2.45              | May    | 0.04           | July   | 29.3            | 66                 | 172                | 82                         | 111                 | n.w.                          |
| Joseph                     | Wallowa           | 4,400            | 10                                | 41.4         | 94       | Aug. 10 | —8      | Jan. 24                 | 10                       | 17.14               | 2.40              | Mar.   | 0.58           | Sept.  | 84.1            | 85                 | 250                | 50                         | 65                  | sw.                           |
| Klamath Falls              | Klamath           |                  | 1                                 |              | 100      | July 27 | 0       | Jan. 24                 | 1                        |                     | 2.06              | Nov.   | 0.00           | July   | 23.4            |                    |                    |                            |                     | n.                            |
| La Grande                  | Union             | 2,784            | 12                                | 48.3         | 103      | Aug. 10 | —6      | Jan. 23                 | 12                       | 16.41               | 3.25              | Nov.   | 0.61           | June   | 50.7            | 101                |                    |                            |                     |                               |
| Lakeview                   | Gilliam           | 5,060            | 16                                | 45.9         | 99       | July 26 | —10     | Jan. 23                 | 16                       | 8.39                | 1.40              | Jan.   | T.             | Aug.   | 39.2            | 49                 | 112                | 198                        | 55                  | n.w.                          |
| Lone Rock                  | Klamath           | 2,000            | 9                                 |              | 106      | Aug. 10 |         |                         | 9                        |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Lorella                    | Union             |                  | 3                                 |              | 103      | July 11 |         |                         | 3                        |                     |                   |        |                |        |                 |                    |                    |                            |                     | w.                            |
| New Bridge                 | Union             |                  | 7                                 |              | 103      | July 11 |         |                         | 7                        |                     |                   |        |                |        |                 |                    |                    |                            |                     |                               |
| Payette                    | Idaho. Canyon     | 1,900            | 7                                 | 52.5         | 110      | Aug. 11 | —11     | Jan. 28                 | 7                        | 11.24               | 2.98              | Nov.   | T.             | Mar.   | 24.3            | 54                 | 191                | 47                         | 127                 | s.                            |
| P. Ranch                   | Harney            |                  | 2                                 |              | 101      | Aug. 10 |         |                         | 2                        |                     |                   |        |                |        |                 |                    |                    |                            |                     | sw.                           |
| Prineville                 | Crook             | 3,000            | 2                                 | 50.4         | 119      | July 29 | —5      | Dec. 13                 | 2                        | 7.49                | 2.60              | Nov.   | 0.03           | Aug.   |                 |                    |                    |                            |                     | sw.                           |
| Riverside                  | Malheur           |                  | 2                                 | 48.0         | 106      | Aug. 11 | —19     | Jan. 26                 | 2                        | 4.55                | 1.17              | May    | 0.06           | Aug.   | 20.3            | 30                 |                    |                            |                     | w.                            |
| Silver Lake                | Lake              | 4,300            | 10                                | 43.2         | 101      | Aug. 10 | —10     | Dec. 12                 | 10                       | 6.99                | 2.03              | Nov.   | 0.05           | Aug.   | 23.2            | 39                 | 185                | 125                        | 54                  | sw.                           |
| Sparta                     | Union             | 4,125            | 8                                 | 44.3         | 100      | Aug. 11 | —3      | Jan. 25                 | 8                        | 23.41               | 6.01              | Nov.   | 0.32           | June   | 148.0           | 80                 | 183                | 105                        | 77                  | w.                            |
| Vale                       | Malheur           | 4,400            | 8                                 | 46.5         | 105      | Aug. 11 | —17     | Jan. 25                 | 8                        | 6.79                | 1.11              | Nov.   | 0.06           | Apr.   | 15.0            | 65                 | 155</              |                            |                     |                               |

Monthly and Annual Mean Temperature for the Year 1898, with Departures from the Normal.

| Stations.                  | January.     |            | February.    |            | March.       |            | April.       |            | May.         |            | June.        |            | July.        |            | August.      |            | September.   |            | October.     |            | November.    |            | December.    |            | Annual.      |            |
|----------------------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|
|                            | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. | Temperature. | Departure. |
| <b>COAST DISTRICT.</b>     |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |
| Astoria                    | 41.3         | -2.0       | 45.9         | +4.0       | 44.2         | -0.7       | 49.8         | +1.3       | 54.4         | +1.2       | 59.3         | +1.8       | 60.5         | +0.2       | 63.1         | +2.3       | 59.9         | +2.1       | 53.9         | +0.7       | 46.6         | -0.2       | 41.8         | 0.0        | 51.7         | +1.2       |
| Bandon                     | 44.3         | -0.6       | 49.2         | +3.8       | 44.4         | -3.1       | 49.0         | -0.8       | 54.1         | +0.5       | 58.6         | +1.7       | 57.6         | -0.7       | 59.5         | +1.1       | 57.6         | +1.3       | 53.4         | +0.1       | 48.6         | -0.5       | 47.2         | -0.1       | 52.0         | +0.2       |
| Bay City                   | 40.3         | .....      | 46.1         | .....      | 42.6         | .....      | 48.2         | .....      | 54.1         | .....      | 59.6         | .....      | 59.1         | .....      | 61.3         | .....      | 58.4         | .....      | 51.8         | .....      | 45.8         | .....      | 42.2         | .....      | 51.6         | .....      |
| Coguille River L. H.       | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Fairview                   | 41.7         | .....      | 46.8         | .....      | 44.8         | .....      | 48.0         | .....      | 50.4         | .....      | 57.6         | .....      | 60.0         | .....      | 65.3         | .....      | 61.0         | .....      | 55.4         | .....      | 48.4         | .....      | 42.4         | .....      | 51.8         | .....      |
| Fort Canby Wash.           | 41.2         | +0.2       | 44.8         | +2.8       | 44.2         | -0.9       | 48.0         | -0.8       | 53.5         | +0.3       | 57.2         | +0.3       | 58.1         | -1.3       | 60.6         | +0.6       | 58.1         | +0.6       | 53.2         | -0.4       | 46.6         | -1.4       | 43.4         | -0.6       | 50.7         | +0.1       |
| Gardiner                   | 43.8         | 0          | 47.2         | +2.6       | 45.6         | -0.9       | 49.8         | -0.8       | 55.2         | +1.3       | 59.4         | +1.4       | 60.5         | +0.1       | 62.1         | 0.0        | 59.8         | -1.8       | 53.5         | -0.6       | 47.8         | -1.8       | 43.6         | -0.6       | 52.4         | +0.3       |
| Glenora                    | 36.8         | +0.2       | 41.2         | +2.2       | 42.0         | -0.4       | 48.7         | -3.6       | 52.4         | +0.9       | 59.2         | +4.4       | 65.0         | +3.1       | 66.4         | +2.6       | 60.2         | -1.2       | 49.6         | -1.2       | 43.2         | +0.8       | 37.5         | +1.8       | 50.2         | +1.9       |
| Langlois                   | 46.1         | -0.8       | 50.1         | +3.2       | 47.8         | -0.9       | 51.4         | +1.7       | 56.0         | +1.0       | 61.2         | +2.1       | 62.0         | +0.1       | 65.0         | +1.7       | 61.4         | +0.5       | 51.1         | +4.9       | 51.6         | +0.6       | 48.7         | +1.9       | 55.2         | +1.3       |
| Nehalem                    | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Newport                    | 43.4         | -0.6       | 47.2         | +2.5       | 45.4         | -0.2       | 48.3         | -0.5       | 52.5         | -0.7       | 57.2         | -0.5       | 56.1         | -3.1       | 58.2         | -0.3       | 56.6         | +0.6       | 53.9         | -0.7       | 47.5         | -1.7       | 45.0         | -1.6       | 50.9         | -0.6       |
| Tillamook Rock             | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Toledo                     | .....        | .....      | 45.4         | +1.9       | 45.8         | -0.1       | .....        | .....      | .....        | .....      | 61.4         | +4.1       | 63.0         | +1.4       | 64.0         | +1.1       | 62.1         | +3.9       | 56.8         | +2.2       | 50.4         | +1.4       | 44.0         | -1.0       | .....        | .....      |
| Crescent City Cal.         | 43.5         | .....      | 48.4         | .....      | 45.7         | .....      | 48.8         | .....      | 51.0         | .....      | 56.5         | .....      | 54.8         | .....      | 57.1         | .....      | 55.6         | .....      | .....        | .....      | 48.3         | .....      | 46.4         | .....      | 55.5         | .....      |
| <b>WILLAMETTE VALLEY.</b>  |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |
| Albany                     | 41.0         | +2.6       | 47.0         | +5.4       | 45.0         | -1.6       | 52.6         | +0.7       | 56.6         | -1.1       | 62.1         | +0.7       | 67.6         | +1.5       | 67.5         | +1.7       | 60.8         | +4.4       | 52.6         | +1.0       | 45.0         | +0.2       | 40.0         | -0.4       | 53.2         | +1.3       |
| Corvallis                  | 39.4         | +1.4       | 45.7         | +5.9       | 44.0         | -0.2       | 51.7         | +3.0       | 54.9         | +1.0       | 61.0         | +1.6       | 64.6         | -0.7       | 66.7         | +1.5       | 61.5         | -2.4       | 50.6         | -0.7       | 43.4         | -1.5       | 37.6         | -2.6       | 51.8         | +0.9       |
| Eugene                     | 38.8         | -1.3       | 45.8         | +3.6       | 42.2         | -3.6       | 50.2         | +1.2       | 53.2         | -1.2       | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Falls City                 | 37.6         | .....      | 43.9         | .....      | 43.2         | .....      | 50.0         | .....      | 54.0         | .....      | 59.9         | .....      | 64.0         | .....      | 65.2         | .....      | 60.3         | .....      | 49.6         | .....      | 43.2         | .....      | 36.4         | .....      | 50.6         | .....      |
| Forest Grove               | 36.4         | +0.4       | 43.0         | +4.0       | 42.6         | -1.1       | 51.0         | +3.1       | 55.1         | -1.0       | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | 50.4         | -0.8       | 42.7         | -1.5       | 34.6         | -3.6       | .....        | .....      |
| Government Camp            | 28.2         | .....      | 34.4         | .....      | 31.2         | .....      | 40.0         | .....      | 43.8         | .....      | 51.0         | .....      | 55.9         | .....      | 59.8         | .....      | 53.2         | .....      | 42.8         | .....      | 33.4         | .....      | 30.2         | .....      | 42.0         | .....      |
| Irrington (nr Portland)    | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| McMinnville                | 37.8         | +0.5       | 45.6         | +5.4       | 43.0         | -2.1       | 51.6         | +2.6       | 55.4         | -0.3       | 61.8         | +2.6       | 65.8         | +0.6       | 67.6         | +1.7       | 61.4         | +2.6       | 51.2         | -1.0       | 42.6         | -2.1       | 37.5         | -2.4       | 51.8         | +0.7       |
| Miramonte Farm             | 38.4         | +0.7       | 45.5         | +4.8       | 42.7         | -3.5       | 51.0         | +0.6       | 54.8         | -2.2       | 61.6         | +0.5       | 64.5         | -1.8       | 64.4         | -0.4       | 60.4         | +1.4       | 50.4         | -2.3       | 43.2         | -3.2       | 37.7         | -2.2       | 51.4         | -0.6       |
| Monmouth                   | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Monroe                     | 39.0         | .....      | 46.1         | .....      | 43.0         | .....      | 50.5         | .....      | 53.8         | .....      | 61.8         | .....      | 65.8         | .....      | 67.4         | .....      | 63.0         | .....      | 51.0         | .....      | 44.1         | .....      | 39.0         | .....      | 52.1         | .....      |
| ML Angel                   | 39.0         | +1.1       | 46.0         | +5.4       | 44.1         | -2.3       | 52.4         | +2.5       | 55.6         | -1.9       | 61.8         | +1.7       | 66.8         | -0.7       | 67.4         | +1.6       | 62.2         | -2.0       | 51.0         | -1.4       | 44.1         | -2.8       | 37.0         | -4.6       | 52.6         | -0.8       |
| Newberg                    | 38.5         | -0.2       | 45.0         | +3.3       | 42.7         | -2.8       | 51.4         | +0.0       | 54.2         | -0.8       | 61.5         | -1.1       | 66.1         | -0.6       | 68.2         | -6.0       | 61.6         | +1.6       | 50.8         | -3.4       | 43.8         | -1.8       | 37.4         | -4.1       | 51.3         | -0.7       |
| Portland                   | 39.0         | +0.5       | 45.7         | +4.5       | 43.8         | -3.5       | 51.6         | +0.0       | 56.6         | -0.7       | 62.5         | +0.9       | 66.4         | +0.1       | 68.2         | +2.3       | 62.8         | -2.1       | 53.0         | -0.4       | 43.8         | -1.8       | 37.5         | -3.8       | 52.6         | 0.0        |
| Salem                      | 39.6         | -0.2       | 45.2         | +2.2       | 43.2         | -2.6       | 51.6         | +2.6       | 56.2         | +0.9       | 62.6         | +1.8       | 65.4         | +0.1       | 68.2         | +2.6       | 61.4         | +1.7       | 51.5         | -1.1       | 44.6         | -2.7       | 37.8         | -4.9       | 52.3         | 0.0        |
| Stafford                   | 37.6         | .....      | 44.6         | .....      | 42.3         | .....      | 50.6         | .....      | 55.4         | .....      | 61.2         | .....      | 66.4         | .....      | 68.8         | .....      | 62.8         | .....      | 51.6         | .....      | 41.2         | .....      | 36.6         | .....      | 53.3         | .....      |
| Vancouver Wash.            | 38.2         | .....      | 44.9         | .....      | 43.4         | .....      | 51.2         | .....      | 55.0         | .....      | 61.2         | .....      | 65.1         | .....      | 66.7         | .....      | 60.9         | .....      | 51.1         | .....      | 44.2         | .....      | 36.6         | .....      | 51.5         | .....      |
| Vernonia                   | 35.9         | -0.2       | 42.4         | +6.2       | 41.8         | +0.2       | 49.8         | +3.0       | 53.2         | -1.5       | 58.8         | +1.4       | 63.7         | +1.9       | 67.5         | +4.3       | 61.6         | +4.4       | 46.8         | -4.2       | .....        | .....      | .....        | .....      | .....        | .....      |
| <b>SOUTHERN OREGON.</b>    |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |
| Ashland                    | 35.3         | -2.9       | 44.6         | +3.6       | 42.4         | -5.4       | 52.2         | +2.6       | 55.0         | -3.1       | 62.0         | -1.0       | 68.8         | -1.4       | 71.4         | +2.8       | 62.5         | +0.5       | 50.5         | -3.3       | 42.4         | -1.9       | 38.7         | -0.4       | 52.1         | -0.8       |
| Buckhorn Farm              | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Grant's Pass               | 36.3         | -0.7       | 45.0         | +4.7       | 44.6         | -0.7       | 53.9         | +4.3       | 56.0         | -0.9       | 63.5         | +1.2       | 69.8         | -0.1       | 72.0         | +3.0       | 62.4         | +3.3       | 51.8         | -1.6       | 43.8         | +0.6       | 37.1         | -0.5       | 53.0         | +1.0       |
| Jacksonville               | 33.4         | -2.9       | 43.2         | +4.2       | 43.0         | -2.4       | 52.4         | +3.0       | 56.0         | -0.8       | 63.0         | +1.3       | 69.7         | +0.6       | 72.2         | +3.9       | 62.5         | +2.1       | 49.9         | -2.5       | 41.6         | -2.2       | 36.6         | +0.4       | 52.0         | +0.4       |
| Placer                     | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Roseburg                   | 39.4         | -1.1       | 46.8         | +4.5       | 43.6         | -4.2       | 51.9         | +1.0       | 54.6         | -1.8       | 61.7         | +0.8       | 66.4         | -0.1       | 68.1         | +2.2       | 61.8         | +0.7       | 52.9         | +0.2       | 45.2         | -0.2       | 38.0         | -4.6       | 52.6         | -0.2       |
| Williams                   | 36.0         | -2.4       | 44.0         | +3.9       | 42.9         | -1.9       | 51.2         | +3.4       | 54.4         | -1.7       | 61.8         | +0.8       | 66.6         | +0.4       | 67.9         | +1.7       | 59.2         | +1.2       | 50.0         | -1.5       | 43.4         | +0.4       | .....        | .....      | 52.5         | .....      |
| <b>COLUMBIA RIVER VAL.</b> |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |
| Arlington                  | 34.0         | +2.2       | 44.4         | +6.7       | 42.8         | -2.4       | 54.2         | +2.2       | 59.9         | -0.3       | 67.3         | +0.6       | 74.4         | 0.0        | 77.2         | +4.8       | 65.1         | +4.7       | 51.4         | -1.2       | 41.5         | -2.5       | 30.9         | -5.5       | 53.6         | +0.8       |
| Blalocks                   | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Cascade Locks              | 37.8         | +2.1       | 43.2         | +4.1       | 44.1         | -1.2       | 52.6         | +2.0       | 57.8         | +0.4       | 63.3         | +1.7       | 67.4         | -0.8       | 69.5         | -1.2       | 62.5         | +3.1       | 51.9         | -2.0       | 42.2         | -4.4       | 34.2         | +1.3       | 52.2         | +0.6       |
| Heppner                    | 31.8         | -0.8       | 40.3         | +9.3       | 39.2         | -2.4       | 48.8         | -0.7       | 52.4         | +3.2       | 60.8         | -0.4       | 67.8         | -0.4       | 70.8         | -2.5       | 59.5         | -0.8       | 48.0         | -2.4       | 38.4         | -6.4       | 27.5         | -8.7       | 49.9         | -1.0       |
| Hood River (near)          | 35.2         | +2.1       | 42.0         | +7.4       | 41.8         | +1.0       | 50.4         | +3.4       | 55.8         | +0.8       | 62.2         | +3.8       | 68.2         | +2.4       | 69.0         | +3.2       | 60.6         | +4.1       | 49.0         | -0.6       | 39.4         | -3.4       | 30.8         | -4.1       | 50.4         | +1.7       |
| Moro                       | 31.4         | .....      | 40.3         | .....      | 39.5         | .....      | 48.9         | .....      | 52.5         | .....      | 60.8         | .....      | 67.1         | .....      | 70.1         | .....      | 59.2         | .....      | 47.2         | .....      | 37.4         | .....      | 27.4         | .....      | 49.9         | .....      |
| Pendleton                  | 34.0         | +1.1       | 45.6         | +9.3       | 41.9         | -1.9       | 52.4         | +1.9       | 57.5         | -0.1       | 68.3         | +5.5       | 71.5         | +1.3       | 75.1         | +5.3       | 62.2         | +2.8       | 50.9         | -0.3       | 40.8         | -3.0       | 28.8         | -7.5       | 52.4         | +1.2       |
| Stokes                     | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| The Dalles                 | 36.2         | +5.4       | 44.0         | +7.7       | 45.6         | -0.5       | 54.0         | +0.6       | 59.6         | -1.3       | 65.9         | -1.0       | 71.9         | -1.4       | 74.3         | +3.5       | 63.6         | +1.2       | 51.5         | -0.2       | 42.0         | -0.3       | 32.6         | -2.7       | 53.4         | +0.9       |
| Umatilla                   | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        | .....      | .....        |            |
| Walla Walla Wash.          | 32.2         | +0.9       | 45.4         | +7.8       | 42.0         | -4.5       | 53.8         | -0.2       | 58.4         | -3.1       | 66.0         | -2.1       | 74.0         | -0.5       | 78.4         | +4.5       | 65.4         | +2.1       | 52.6         | -1.6       | 40.8         | -2.0       | 28.8         | -9.0       | 53.2         | -0.3       |
| Weston                     | 31.2         | -1.4       | 44.2         | +9.7       | 38.9         | -1.8       | 5            |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |              |            |

| Stations.                | January. |       | February. |       | March.   |       | April.   |       | May.     |       | June.    |       | July.    |       | August.  |       | September. |       | October. |       | November. |       | December. |       |
|--------------------------|----------|-------|-----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|------------|-------|----------|-------|-----------|-------|-----------|-------|
|                          | Maximum. | Date. | Maximum.  | Date. | Maximum. | Date. | Maximum. | Date. | Maximum. | Date. | Maximum. | Date. | Maximum. | Date. | Maximum. | Date. | Maximum.   | Date. | Maximum. | Date. | Maximum.  | Date. | Maximum.  | Date. |
| COAST DISTRICT.          |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Astoria.....             | 51       | 16    | 59        | 27    | 65       | 1     | 71       | 12    | 80       | 25    | 90       | 6     | 80       | 29    | 84       | 23    | 84         | 6     | 66       | 7     | 57        | 3     | 55        | 27    |
| Bandon.....              | 60       | 1     | 64        | 2     | 59       | 1     | 61       | 12    | 72       | 3     | 73       | 5     | 68       | 16    | 71       | 24    | 71         | 20    | 66       | 13    | 60        | 3     | 54        | 7     |
| Bay City.....            | 55       | 2     | 60        | 27    | 64       | 1     | 66       | 12    | 81       | 3     | 93       | 5     | 81       | 27    | 85       | 23    | 89         | 6     | 66       | 13    | 72        | 3     | 57        | 7     |
| Coquille River L. H.     |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Fairview.....            | 56       | 30    | 60        | 13    | 66       | 4     | 67       | 24    | 73       | 2     | 95       | 4     | 90       | 29    | 88       | 24    | 90         | 16    | 76       | 16    | 70        | 6     | 58        | 16    |
| Fort Canby..... Wash.    | 52       | 1     | 58        | 27    | 62       | 1     | 67       | 12    | 76       | 25    | 85       | 5     | 77       | 29    | 87       | 23    | 85         | 6     | 67       | 7     | 60        | 13    | 58        | 7     |
| Gardiner.....            | 57       | 28    | 59        | 28    | 65       | 1     | 72       | 12    | 86       | 4     | 91       | 5     | 81       | 26    | 78       | 23    | 82         | 5     | 67       | 13    | 60        | 3     | 56        | 27    |
| Glenora.....             | 49       | 4     | 57        | 12    | 65       | 6     | 82       | 24    | 87       | 25    | 93       | 8     | 99       | 31    | 100      | 5     | 96         | 7     | 70       | 7     | 59        | 13    | 54        | 25    |
| Langlois.....            | 64       | 31    | 68        | 2     | 73       | 1     | 76       | 11    | 83       | 3     | 92       | 5     | 85       | 27    | 80       | 10    | 83         | 15    | 84       | 16    | 73        | 13    | 68        | 8     |
| Nehalem.....             |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Newport.....             | 56       | 28    | 63        | 28    | 68       | 5     | 73       | 12    | 81       | 3     | 91       | 5     | 67       | 17    | 80       | 23    | 77         | 6     | 70       | 6     | 62        | 13    | 56        | 8     |
| Tillamook Rock.....      |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Toledo.....              | 56       | 31    | 64        | 28    | 68       | 7     |          |       |          |       | 89       | 5     | 89       | 27    | 95       | 23    | 86         | 18    | 76       | 20    | 73        | 1     | 60        | 26    |
| Crescent City..... Cal.  | 60       | 31    | 62        | 28    | 62       | 1     | 70       | 12    | 68       | 1     | 81       | 4     | 68       | 27    | 68       | 23    | 72         | 25    |          |       | 68        | 13    | 63        | 6     |
| WILLAMETTE VALLEY.       |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Albany.....              | 54       | 30    | 68        | 12    | 68       | 6     | 77       | 24    | 85       | 25    | 88       | 7     | 96       | 29    | 97       | 5     | 92         | 6     | 72       | 13    | 64        | 4     | 55        | 25    |
| Corvallis.....           | 56       | 30    | 65        | 28    | 66       | 6     | 81       | 24    | 85       | 25    |          |       | 99       | 30    | 98       | 5     | 94         | 6     | 71       | 7     | 60        | 4     | 54        | 25    |
| Eugene.....              | 52       | 13    | 68        | 14    | 65       | 6     | 76       | 12    | 76       | 2     |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Falls City.....          | 50       | 15    | 63        | 14    | 62       | 31    | 78       | 24    | 85       | 25    | 89       | 8     | 96       | 31    | 94       | 5     | 90         | 6     | 69       | 13    | 58        | 4     | 58        | 26    |
| Forest Grove.....        | 56       | 13    | 64        | 14    | 65       | 1     | 89       | 24    | 89       | 25    |          |       |          |       |          |       |            |       | 73       | 20    | 60        | 4     | 64        | 5     |
| Government Camp.....     | 51       | 4     | 51        | 12    | 63       | 5     | 71       | 24    | 74       | 25    | 82       | 9     | 90       | 30    | 95       | 9     | 88         | 18    | 73       | 21    | 59        | 14    | 47        | 27    |
| Irrington (nr Portland). | 56       | 26    | 59        | 27    | 62       | 31    | 82       | 12    | 87       | 25    | 90       | 9     | 96       | 30    | 99       | 5     | 90         | 7     | 72       | 7     | 54        | 14    | 55        | 26    |
| McMinville.....          | 51       | 14    | 62        | 14    | 65       | 1     | 82       | 24    | 90       | 25    | 94       | 9     | 100      | 30    | 101      | 5     | 93         | 7     | 71       | 7     | 58        | 4     | 53        | 27    |
| Miramonte Farm.....      | 52       | 30    | 63        | 14    | 67       | 1     | 81       | 24    | 90       | 25    | 92       | 8     | 95       | 31    | 99       | 5     | 90         | 6     | 70       | 7     | 58        |       |           |       |

Port Crescent.—Record previous to October 1, made at Port Angeles.

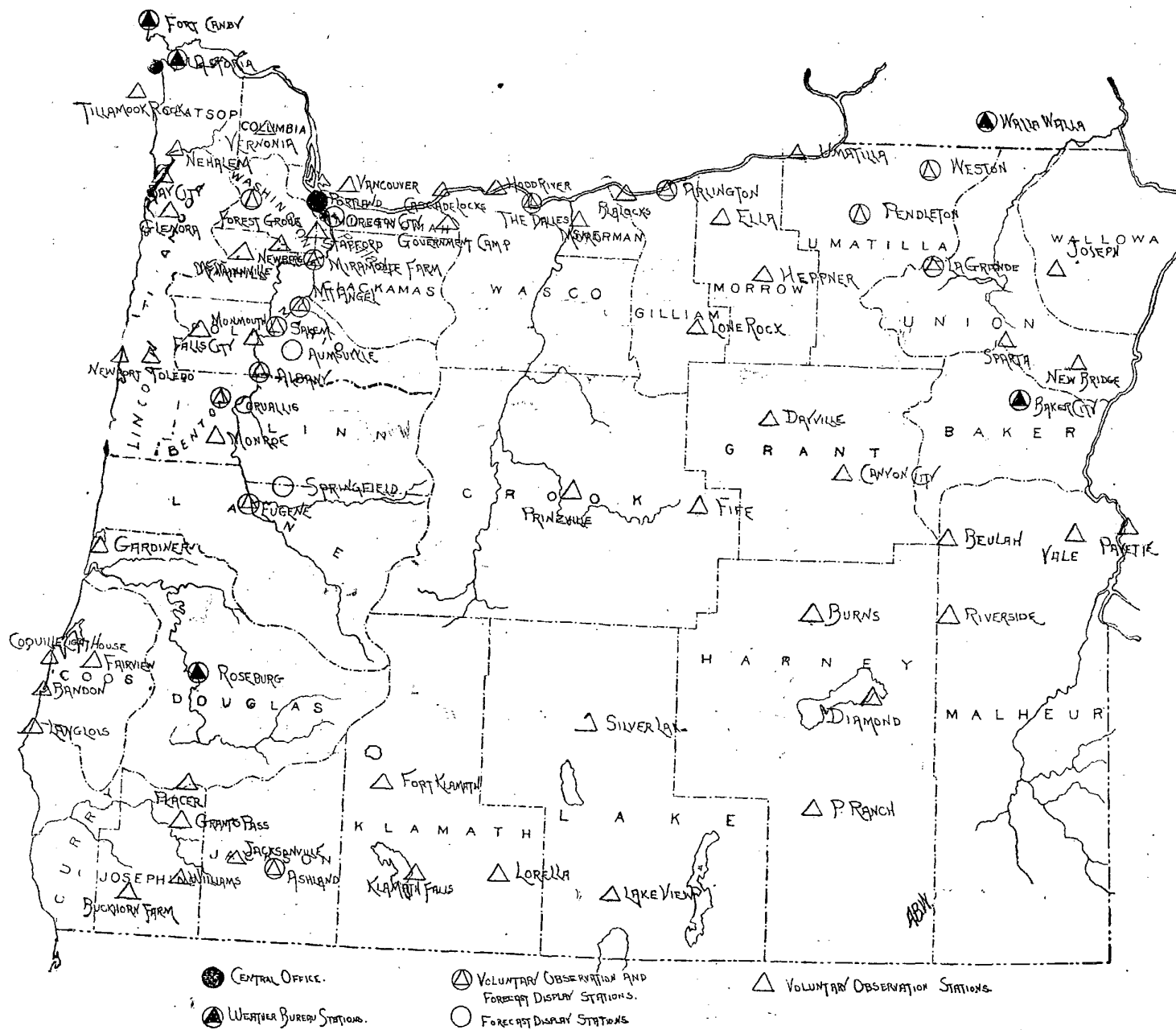
| Monthly Minimum Temperatures for the Year 1898, with Dates. |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
|---|----------|-------|-----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|------------|-------|----------|-------|-----------|-------|-----------|-------|
| Stations.   | January. |       | February. |       | March.   |       | April.   |       | May.     |       | June.    |       | July.    |       | August.  |       | September. |       | October. |       | November. |       | December. |       |
|   | Minimum. | Date. | Minimum.  | Date. | Minimum. | Date. | Minimum. | Date. | Minimum. | Date. | Minimum. | Date. | Minimum. | Date. | Minimum. | Date. | Minimum.   | Date. | Minimum. | Date. | Minimum.  | Date. | Minimum.  | Date. |
| COAST DISTRICT.   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Astoria   | 27       | 25    | 35        | 21    | 30       | 22    | 35       | 2     | 40       | 29    | 40       | 1     | 48       | 7     | 51       | 9     | 46         | 30    | 42       | 24    | 34        | 20    | 31        | 12    |
| Bandon  | 28       | 10    | 33        | 8     | 29       | 22    | 32       | 2     | 42       | 30    | 46       | 1     | 41       | 28    | 51       | 5     | 40         | 28    | 38       | 25    | 30        | 25    | 28        | 12    |
| Bay City  | 24       | 23    | 33        | 8     | 25       | 22    | 29       | 3     | 35       | 12    | 39       | 28    | 43       | 6     | 45       | 14    | 42         | 4     | 36       | 6     | 30        | 25    | 25        | 12    |
| Coquille River L. H.  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Fairview  | 26       | 26    | 33        | 17    | 27       | 23    | 31       | 18    | 35       | 7     | 35       | 28    | 42       | 19    | 48       | 5     | 42         | 28    | 36       | 16    | 29        | 12    | 21        | 10    |
| Port Canby Wash.  | 30       | 24    | 35        | 16    | 32       | 25    | 37       | 3     | 44       | 6     | 45       | 1     | 48       | 7     | 52       | 15    | 46         | 30    | 44       | 1     | 36        | 20    | 32        | 30    |
| Gardiner  | 28       | 24    | 36        | 16    | 29       | 22    | 32       | 3     | 40       | 6     | 44       | 1     | 42       | 15    | 50       | 14    | 43         | 30    | 40       | 1     | 34        | 24    | 30        | 12    |
| Glenora   | 18       | 25    | 28        | 26    | 23       | 22    | 25       | 3     | 33       | 1     | 37       | 28    | 44       | 15    | 45       | 14    | 42         | 9     | 30       | 16    | 28        | 25    | 19        | 12    |
| Langlois  | 28       | 10    | 31        | 17    | 28       | 22    | 32       | 2     | 36       | 23    | 40       | 3     | 44       | 14    | 48       | 14    | 42         | 30    | 40       | 15    | 30        | 25    | 27        | 12    |
| Nehalem   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Newport   | 28       | 10    | 27        | 6     | 29       | 8     | 31       | 3     | 38       | 12    | 42       | 28    | 39       | 7     | 45       | 14    | 43         | 30    | 41       | 15    | 34        | 20    | 29        | 5     |
| Tillamook Rock  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Toledo  |          |       | 28        | 15    | 20       | 22    |          |       |          |       | 40       | 28    | 43       | 14    | 50       | 19    | 44         | 27    | 33       | 24    | 32        | 23    | 25        | 11    |
| Crescent City Cal.  | 28       | 10    | 29        | 17    | 30       | 22    | 33       | 3     | 34       | 6     | 43       | 20    | 39       | 14    | 45       | 3     | 40         | 11    |          |       | 33        | 20    | 30        | 10    |
| WILLAMETTE VALLEY.  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Albany  | 27       | 10    | 31        | 2     | 25       | 22    | 32       | 2     | 36       | 23    | 42       | 1     | 44       | 9     | 48       | 22    | 42         | 30    | 35       | 22    | 28        | 13    | 18        | 12    |
| Corvallis   | 23       | 26    | 29        | 2     | 26       | 22    | 30       | 3     | 34       | 7     |          |       | 39       | 14    | 43       | 21    | 38         | 11    | 33       | 15    | 26        | 12    | 18        | 11    |
| Eugene  | 26       | 1     | 34        | 1     | 26       | 22    | 31       | 3     | 35       | 7     |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Falls City  | 22       | 25    | 29        | 8     | 25       | 22    | 29       | 3     | 34       | 7     | 38       | 28    | 42       | 14    | 46       | 15    | 42         | 30    | 35       | 28    | 24        | 17    | 12        |       |
| Forest Grove  | 14       | 25    | 29        | 1     | 22       | 21    | 25       | 2     | 32       | 5     |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Government Camp   | 2        | 10    | 16        | 8     | 3        | 22    | 12       | 3     | 25       | 7     | 29       | 1     | 31       | 6     | 35       | 4     | 29         | 30    | 26       | 16    | 21        | 10    | 5         |       |
| Irrington (nr Portland)                                     | 22       | 25    | 25        | 17    | 25       | 22    | 30       | 15    | 40       | 8     | 40       | 25    | 48       | 21    | 50       | 28    | 43         | 29    | 40       | 7     | 27        | 25    | 20        | 13    |
| McMinnville   | 12       | 25    | 30        | 8     | 22       | 22    | 28       | 2     | 33       | 23    | 38       | 1     | 41       | 18    | 46       | 28    | 38         | 4     | 33       | 16    | 26        | 12    | 17        | 12    |
| Miramonte Farm  | 23       | 26    | 29        | 8     | 21       | 22    | 27       | 2     | 32       | 24    | 39       | 28    | 43       | 19    | 42       | 3     | 41         | 4     | 34       | 16    | 27        | 14    | 17        | 12    |
| Monmouth  |          |       |           |       | 23       | 22    | 28       | 2     | 32       | 23    |          |       |          |       |          |       | 39         | 12    | 33       | 15    | 26        | 24    | 18        | 12    |
| Monroe  | 23       | 26    | 31        | 16    | 27       | 23    | 29       | 2     | 35       | 7     | 39       | 1     | 43       | 14    | 49       | 22    | 43         | 29    | 35       | 24    | 26        | 14    | 19        | 12    |
| Mt. Angel   | 26       | 24    | 32        | 2     | 25       | 22    | 30       | 3     | 35       | 19    | 42       | 1     | 45       | 14    | 49       | 22    | 44         | 4     | 34       | 16    | 28        | 13    | 18        | 12    |
| Newberg   | 14       | 24    | 28        | 8     | 21       | 22    | 28       | 2     | 32       | 22    | 40       | 2     | 42       | 14    | 45       | 28    | 41         | 4     | 30       | 25    | 27        | 24    | 18        | 12    |
| Portland  | 25       | 23    | 32        | 8     | 27       | 22    | 32       | 2     | 39       | 7     | 43       | 2     | 48       | 19    | 52       | 28    | 44         | 30    | 41       | 8     | 29        | 25    | 21        | 12    |
| Salem   | 25       | 26    | 28        | 2     | 24       | 22    | 29       | 3     | 36       | 7     | 40       | 2     | 45       | 6     | 46       | 22    | 40         | 4     | 34       | 16    | 28        | 12    | 16        | 12    |
| Stafford  | 21       | 23    | 32        | 1     | 24       | 22    | 29       | 3     | 36       | 6     | 41       | 1     | 44       | 20    | 50       | 4     | 44         | 1     | 38       | 16    | 28        | 25    | 19        | 12    |
| Vancouver Wash.   | 15       | 25    | 28        | 2     | 23       | 22    | 29       | 2     | 33       | 6     | 40       | 2     | 46       | 21    | 48       | 17    | 41         | 4     | 33       | 7     | 29        | 14    | 13        | 12    |
| Vernonia  | 14       | 25    | 23        | 2     | 22       | 22    | 26       | 18    | 31       | 6     | 36       | 4     | 34       | 7     | 43       | 14    | 35         | 6     | 27       | 7     |           |       | 13        | 11    |
| SOUTHERN OREGON.  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Ashland   | 13       | 26    | 24        | 17    | 21       | 23    | 25       | 3     | 32       | 29    | 35       | 1     | 41       | 14    | 44       | 27    | 35         | 28    | 28       | 24    | 22        | 11    | 20        | 23    |
| Buckhorn Farm   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       | 31       | 24    | 22        | 9     | 7         | 8     |
| Grant's Pass  | 19       | 10    | 24        | 17    | 22       | 22    | 24       | 3     | 31       | 7     | 36       | 3     | 39       | 15    | 42       | 31    | 37         | 28    | 30       | 16    | 22        | 9     | 15        | 11    |
| Jacksonville  | 15       | 26    | 25        | 17    | 20       | 22    | 25       | 3     | 34       | 7     | 36       | 1     | 45       | 14    | 47       | 31    | 38         | 28    | 31       | 24    | 25        | 25    | 19        | 23    |
| Roseburg  | 22       | 24    | 29        | 17    | 24       | 22    | 29       | 3     | 33       | 7     | 39       | 3     | 42       | 14    | 48       | 22    | 43         | 12    | 35       | 24    | 31        | 11    | 20        | 12    |
| Williams  | 18       | 26    | 22        | 17    | 19       | 22    | 22       | 3     | 29       | 7     | 35       | 3     | 40       | 19    | 42       | 19    | 33         | 23    | 27       | 24    | 20        | 11    | 14        | 10    |
| COLUMBIA RIVER VAL.   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Arlington   | 18       | 10    | 28        | 2     | 15       | 22    | 29       | 4     | 37       | 31    | 37       | 1     | 50       | 6     | 58       | 31    | 44         | 30    | 30       | 16    | 25        | 9     | 1         | 13    |
| Blalocks  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Cascade Locks   | 26       | 26    | 34        | 8     | 28       | 22    | 31       | 2     | 38       | 1     | 44       | 28    | 48       | 7     | 51       | 20    | 44         | 30    | 40       | 24    | 32        | 15    | 15        | 12    |
| Heppner   | 7        | 26    | 24        | 16    | 12       | 22    | 24       | 18    | 28       | 1     | 35       | 2     | 39       | 19    | 45       | 19    | 36         | 28    | 25       | 16    | 21        | 11    | 0         | 11    |
| Hood River (near)   | 21       | 10    | 30        | 2     | 21       | 22    | 26       | 3     | 36       | 31    | 43       | 2     | 46       | 21    | 47       | 20    | 43         | 30    | 33       | 16    | 27        | 25    | 7         | 13    |
| Moro  | 11       | 10    | 27        | 16    | 16       | 22    | 25       | 3     | 32       | 31    | 37       | 1     |          |       |          |       | 39         | 30    | 29       | 17    |           |       |           |       |
| Pendleton   | 10       | 26    | 25        | 2     | 13       | 22    | 23       | 19    | 30       | 4     | 36       | 29    | 40       | 5     | 47       | 19    | 36         | 6     | 23       | 7     | 20        | 9     | 5         | 13    |
| Stokes  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| The Dalles  | 21       | 10    | 28        | 2     | 26       | 16    | 30       | 3     | 37       | 2     | 42       | 2     | 49       | 6     | 51       | 28    | 42         | 30    | 31       | 16    | 27        | 8     | 7         | 13    |
| Umatilla  |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Walla Walla Wash.   | 16       | 25    | 26        | 2     | 19       | 22    | 34       | 3     | 38       | 4     | 43       | 1     | 48       | 6     | 55       | 31    | 43         | 28    | 34       | 29    | 22        | 9     | 2         | 12    |
| Weston  | 13       | 9     | 22        | 2     | 13       | 20    | 30       | 30    | 31       | 29    | 39       | 1     | 42       | 31    | 37       | 31    | 37         | 30    | 25       | 28    | 20        | 20    | 5         | 12    |
| PLATEAU DISTRICT.   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Baker City  | 4        | 24    | 9         | 2     | 11       | 22    | 24       | 19    | 30       | 31    | 34       | 3     | 42       | 23    | 46       | 22    | 30         | 28    | 24       | 5     | 10        | 25    | 3         | 10    |
| Benlah  | 19       | 24    | 5         | 2     | 3        | 22    | 20       | 4     | 23       | 13    | 26       | 3     | 30       | 21    | 40       | 22    | 21         | 23    | 18       | 2     | 7         | 25    | 7         | 12    |
| Burns   | 21       | 22    | 4         | 1     | 4        | 21    | 20       | 2     | 22       | 30    | 25       | 2     | 34       | 22    | 41       | 3     | 13         | 30    | 11       | 3     | 2         | 24    | 16        | 10    |
| Canyon City   |          |       |           |       |          |       |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Dayville  | 5        | 24    | 21        | 2     | 8        | 22    | 24       | 4     | 28       | 7     | 36       | 3     | 42       | 1     | 44       | 19    | 28         | 30    | 24       | 16    | 11        | 12    | 1         | 11    |
| Fife  | 10       | 24    | 0         | 6     | 3        | 22    | 11       | 3     | 22       | 30    |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Fort Klamath  | 10       | 24    | 7         | 22    | 4        | 18    | 11       | 3     |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| Happy Valley  | 13       | 26    | 3         | 2     | 3        | 22    | 15       | 4     | 19       | 7     | 25       | 3     | 31       | 19    | 33       | 22    | 28         | 13    | 19       | 5     | 25        | 10    | 11        |       |
| Joseph  | 8        | 24    | 10        | 1     | 1        | 22    | 22       | 3     | 24       | 7     | 29       | 2     | 35       | 1     | 41       | 22    | 26         | 28    | 22       | 5     | 5         | 26    | 3         | 13    |
| Klamath Falls   | 0        | 24    | 16        | 22    | 12       | 22    |          |       |          |       | 28       | 1     | 37       | 17    | 41       | 19    | 30         | 23    | 22       | 15    | 14        | 25    | 10        | 30    |
| La Grande   | 6        | 23    | 18        | 1     | 7        | 21    | 26       | 3     | 31       | 30    | 36       | 27    |          |       | 41       | 31    | 35         | 30    | 24       | 6     | 11        | 24    | 3         | 11    |
| Lakeview  | 10       | 23    | 10        | 20    | 6        | 21    | 19       | 2     | 27       | 29    | 30       | 2     | 40       | 15    | 40       | 19    | 18         | 30    | 21       | 31    | 7         | 24    | 0         | 20    |
| Lone Rock   |          |       | 18        | 1     | 6        | 22    | 22       | 18    | 27       | 1     | 33       | 1     | 38       | 19    | 42       | 19    | 31         | 28    | 24       | 28    |           |       |           |       |
| Lorella   | 7        | 24    | 6         | 1     | 4        | 20    |          |       |          |       |          |       |          |       |          |       |            |       |          |       |           |       |           |       |
| New Bridge  | 10       | 24    | 6         | 2     | 10       | 22    | 22       | 4     | 28       | 30    | 33       | 2     | 39       | 1     | 40       | 22    | 28         | 30    |          |       |           |       |           |       |
| Payette Idaho.  | 11       | 23    | 4         | 1     | 13       | 21    | 30       | 1     | 30       | 30    | 38       | 2     | 40       | 17    | 40       |       |            |       |          |       |           |       |           |       |



Monthly and Annual Precipitation for the Year 1898, with Departures from the Normal.

| Stations.                  | January.       |            | February.      |            | March.         |            | April.         |            | May.           |            | June.          |            | July.          |            | August.        |            | September.     |            | October.       |            | November.      |            | December.      |            | Annual.        |            |
|----------------------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|----------------|------------|
|                            | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. | Precipitation. | Departure. |
| <b>COAST DISTRICT.</b>     |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |
| Astoria                    | 7.51           | -4.51      | 14.61          | +6.34      | 4.21           | -4.66      | 4.02           | -1.47      | 3.30           | -0.47      | 2.66           | -0.29      | 0.75           | -0.49      | 0.30           | -1.10      | 5018           | +1.90      | 4.06           | -1.30      | 10.93          | +0.57      | 11.19          | -1.16      | 68.72          | -6.64      |
| Bandon                     | 5.78           | -6.79      | 8.27           | -0.41      | 4.59           | -3.15      | 3.54           | -2.30      | 2.83           | -1.01      | 2.32           | +0.57      | 0.11           | -0.43      | 0.67           | +0.21      | 2.14           | -0.57      | 3.35           | -2.02      | 12.25          | +5.57      | 12.00          | -8.00      | 68.72          | -18.33     |
| Bay City                   | 14.26          | 29.39      | 29.39          | 29.39      | 8.61           | 8.61       | 8.61           | 8.61       | 6.18           | 6.18       | 6.89           | 6.89       | 1.55           | 1.55       | 0.87           | 0.87       | 7.37           | 7.37       | 8.51           | 8.51       | 16.42          | 16.42      | 12.00          | 12.00      | 68.72          | 68.72      |
| Coquille River L. H.       | 7.87           | 7.87       | 8.09           | 8.09       | 6.14           | 6.14       | 6.30           | 6.30       | 3.51           | 3.51       | 1.48           | 1.48       | 0.52           | 0.52       | 0.91           | 0.91       | 1.54           | 1.54       | 3.33           | 3.33       | 14.13          | 14.13      | 6.25           | 6.25       | 68.72          | 68.72      |
| Fairview                   | 6.17           | -3.40      | 12.49          | +4.48      | 2.94           | -4.74      | 3.80           | -1.40      | 2.56           | -0.58      | 3.35           | +0.65      | 0.67           | -0.86      | 0.62           | -0.45      | 4.83           | +1.71      | 4.70           | -0.87      | 8.87           | -0.59      | 8.84           | -1.66      | 68.72          | 68.72      |
| Fort Canby Wash.           | 7.03           | -5.02      | 13.25          | +3.78      | 5.83           | -2.64      | 3.02           | -0.02      | 4.98           | -0.28      | 3.06           | -1.22      | 0.26           | -1.05      | 0.92           | +0.27      | 3.80           | -0.47      | 3.37           | -2.70      | 15.00          | +7.73      | 6.08           | -8.73      | 68.72          | 68.72      |
| Gardiner                   | 11.71          | -9.02      | 23.86          | 23.86      | 6.81           | -6.25      | 5.98           | -8.87      | 5.59           | -1.98      | 3.99           | -0.47      | 1.80           | +0.81      | 0.57           | +0.21      | 8.94           | +2.54      | 5.00           | -0.61      | 19.09          | +2.73      | 14.23          | -7.22      | 68.72          | 68.72      |
| Glenora                    | 7.09           | 7.09       | 22.12          | 22.12      | 4.02           | -9.38      | 4.82           | -8.13      | 6.23           | -1.13      | 3.60           | -2.07      | 0.23           | -0.27      | 0.32           | -0.17      | 3.93           | -0.09      | 4.35           | -2.24      | 16.50          | +4.46      | 8.32           | -7.76      | 68.72          | 68.72      |
| Langlois                   | 11.52          | 21.00      | 21.00          | 21.00      | 6.62           | 6.62       | 5.77           | 5.77       | 3.56           | 3.56       | 4.16           | 4.16       | 1.26           | 1.26       | 0.67           | 0.67       | 7.82           | 7.82       | 6.74           | 6.74       | 15.13          | 15.13      | 16.51          | 16.51      | 68.72          | 68.72      |
| Nehalem                    | 7.80           | -2.75      | 13.61          | +7.51      | 3.81           | -2.97      | 3.37           | -3.87      | 4.02           | -0.74      | 3.42           | +0.23      | 0.84           | +0.26      | 0.55           | +0.02      | 3.98           | +1.01      | 5.81           | +1.42      | 11.29          | +2.50      | 5.83           | -6.51      | 68.72          | 68.72      |
| Newport                    | 4.12           | -1.33      | 6.91           | +1.71      | 2.67           | -2.92      | 3.73           | -3.24      | 2.16           | -1.30      | 1.66           | -2.86      | 0.71           | +0.10      | 0.18           | -0.84      | 3.66           | -1.18      | 5.97           | -1.15      | 9.97           | +0.42      | 5.37           | -1.69      | 68.72          | 68.72      |
| Tillamook Rock             | 10.02          | -1.89      | 10.60          | +0.31      | 4.51           | -2.33      | 4.23           | -3.83      | 2.31           | -1.30      | 9.75           | +7.32      | 0.70           | +0.66      | 0.30           | +0.19      | 5.29           | +3.13      | 2.40           | -3.86      | 11.15          | +1.42      | 4.85           | -4.50      | 68.72          | 68.72      |
| Toledo                     | 3.43           | 3.43       | 13.00          | 13.00      | 2.04           | 2.04       | 4.23           | 4.23       | 3.83           | 3.83       | 2.75           | 2.75       | 0.33           | 0.33       | 0.26           | 0.26       | 5.29           | 5.29       | 5.39           | 5.39       | 9.98           | 9.98       | 6.07           | 6.07       | 68.72          | 68.72      |
| Crescent City Cal.         | 4.07           | -4.09      | 7.05           | +1.24      | 2.08           | -2.54      | 2.57           | -1.06      | 1.95           | -0.79      | 1.75           | +0.32      | 0.40           | -0.06      | 0.38           | +0.03      | 3.24           | +1.36      | 1.31           | -2.27      | 7.88           | +3.31      | 3.64           | -4.80      | 68.72          | 68.72      |
| Willamette Valley.         | 3.82           | 3.82       | 4.05           | 4.05       | 1.82           | 1.82       | 2.49           | 2.49       | 1.36           | 1.36       | 2.23           | 2.23       | 0.42           | 0.42       | 0.21           | 0.21       | 3.05           | 3.05       | 1.68           | 1.68       | 7.56           | 7.56       | 3.45           | 3.45       | 68.72          | 68.72      |
| Albany                     | 2.43           | -2.33      | 2.49           | -1.39      | 1.90           | -0.74      | 1.99           | -1.09      | 2.93           | +0.66      | 1.66           | 1.66       | 0.23           | +0.08      | 0.12           | -0.16      | 3.15           | +1.78      | 1.59           | -1.28      | 8.63           | +4.43      | 3.62           | -3.37      | 68.72          | 68.72      |
| Albany (River Station)     | 6.53           | 6.53       | 12.65          | 12.65      | 3.84           | 3.84       | 3.89           | 3.89       | 2.00           | 2.00       | 2.45           | 2.45       | 0.34           | 0.34       | 0.45           | 0.45       | 5.06           | 5.06       | 3.99           | 3.99       | 12.26          | 12.26      | 7.11           | 7.11       | 68.72          | 68.72      |
| Corvallis                  | 3.85           | -3.99      | 7.87           | +2.88      | 2.03           | -2.28      | 2.55           | -0.87      | 2.48           | +0.16      | 1.66           | 1.66       | 0.23           | +0.08      | 0.12           | -0.16      | 3.15           | +1.78      | 1.59           | -1.28      | 8.63           | +4.43      | 3.62           | -3.37      | 68.72          | 68.72      |
| Eugene                     | 11.46          | 11.46      | 12.94          | 12.94      | 6.19           | 6.19       | 4.49           | 4.49       | 3.69           | 3.69       | 3.01           | 3.01       | 1.82           | 1.82       | 0.80           | 0.80       | 6.80           | 6.80       | 4.71           | 4.71       | 19.83          | 19.83      | 12.10          | 12.10      | 68.72          | 68.72      |
| Eugene (River Station)     | 3.60           | -1.80      | 5.66           | +1.91      | 1.51           | -0.99      | 2.09           | -0.45      | 1.12           | -0.67      | 0.94           | -0.71      | 0.81           | +0.49      | 0.07           | -0.15      | 2.88           | -1.54      | 1.62           | -1.26      | 7.07           | +3.43      | 3.10           | -3.34      | 68.72          | 68.72      |
| Falls City                 | 4.17           | -3.43      | 6.65           | +1.90      | 2.06           | -2.47      | 2.33           | -1.40      | 1.61           | -0.62      | 1.62           | -0.37      | 0.70           | +0.37      | 0.79           | +0.42      | 4.63           | -2.86      | 2.41           | -1.25      | 7.75           | +2.51      | 4.21           | -3.46      | 68.72          | 68.72      |
| Forest Grove               | 3.81           | -4.43      | 6.26           | +2.52      | 1.71           | -4.21      | 2.32           | -2.40      | 1.97           | -1.57      | 1.60           | -0.22      | 0.94           | +0.67      | 0.79           | +0.39      | 5.05           | +3.15      | 2.06           | -2.09      | 6.72           | +0.98      | 3.87           | -3.07      | 68.72          | 68.72      |
| Government Camp            | 2.10           | 2.10       | 5.46           | 5.46       | 2.61           | 2.61       | 1.93           | 1.93       | 1.19           | 1.19       | 1.67           | 1.67       | 0.29           | 0.29       | 0.62           | 0.62       | 3.35           | 3.35       | 0.79           | 0.79       | 5.44           | 5.44       | 2.52           | 2.52       | 68.72          | 68.72      |
| Irvington (nr Portland)    | 4.86           | -2.86      | 6.56           | +2.77      | 2.78           | -1.15      | 2.61           | -1.19      | 2.65           | -0.35      | 1.98           | -0.39      | 0.42           | -0.31      | 0.15           | -0.28      | 3.73           | +0.87      | 2.33           | -1.75      | 9.18           | +4.70      | 4.40           | -3.62      | 68.72          | 68.72      |
| McMinnville                | 3.98           | -3.96      | 7.57           | +3.96      | 1.68           | -1.15      | 2.61           | -1.23      | 2.35           | -0.62      | 1.51           | +0.14      | 0.94           | +0.64      | 0.29           | +0.26      | 5.18           | +3.27      | 2.14           | -1.70      | 6.03           | +0.95      | 4.29           | -3.49      | 68.72          | 68.72      |
| Miramonte Farm             | 3.91           | -3.22      | 6.51           | +3.99      | 2.17           | -3.37      | 2.12           | -1.18      | 1.78           | -0.61      | 1.88           | +0.03      | 0.79           | +0.21      | 0.15           | -0.40      | 6.69           | +0.94      | 1.58           | -2.48      | 7.52           | +0.25      | 4.29           | -3.49      | 68.72          | 68.72      |
| Monmouth                   | 3.43           | -4.54      | 5.64           | +2.28      | 2.15           | -2.82      | 2.44           | -2.44      | 1.75           | -2.14      | 1.61           | -0.12      | 0.40           | +0.16      | 0.06           | -0.27      | 1.13           | -1.02      | 4.45           | +0.49      | 6.82           | +1.64      | 3.71           | -2.74      | 68.72          | 68.72      |
| Monroe                     | 3.89           | 3.89       | 7.42           | 7.42       | 2.03           | 2.03       | 3.01           | 3.01       | 2.09           | 2.09       | 2.37           | 2.37       | 1.12           | 1.12       | 0.01           | 0.01       | 2.89           | 2.89       | 2.41           | 2.41       | 7.75           | 7.75       | 4.31           | 4.31       | 68.72          | 68.72      |
| Mt. Angel                  | 4.32           | -5.56      | 8.91           | +0.75      | 3.28           | -2.96      | 3.09           | -3.03      | 2.50           | -1.16      | 2.39           | -0.26      | 0.67           | +0.12      | 0.05           | -0.42      | 4.94           | +2.13      | 3.17           | -1.82      | 5.48           | +5.49      | 5.49           | 5.49       | 68.72          | 68.72      |
| Newberg                    | 1.38           | -1.74      | 1.28           | -0.90      | 0.68           | -1.23      | 0.42           | -1.33      | 1.55           | -0.17      | 1.28           | +0.18      | 0.22           | -0.37      | 1.94           | +1.77      | 0.39           | -0.34      | 1.41           | -0.03      | 3.86           | +1.99      | 1.16           | -2.43      | 68.72          | 68.72      |
| Portland                   | 1.78           | -5.69      | 3.70           | -0.81      | 0.98           | -2.90      | 0.41           | -1.85      | 1.90           | -0.81      | 0.85           | -0.23      | 0.00           | -0.07      | 0.05           | -0.17      | 0.57           | -0.54      | 1.40           | -0.51      | 3.87           | +0.24      | 2.26           | -3.43      | 68.72          | 68.72      |
| Salem                      | 1.54           | -1.99      | 2.35           | -1.02      | 0.92           | -1.46      | 0.59           | -0.80      | 1.77           | -0.43      | 3.30           | +1.38      | 0.03           | -0.13      | 0.18           | +0.01      | 0.45           | -0.56      | 1.25           | -0.07      | 4.82           | +2.08      | 1.64           | -3.60      | 68.72          | 68.72      |
| Stafford                   | 3.90           | -2.36      | 9.11           | -2.88      | 2.15           | -1.42      | 1.07           | -1.54      | 1.86           | -0.13      | 1.04           | -0.22      | 0.03           | -0.41      | 0.89           | +0.63      | 1.63           | +0.63      | 1.53           | -1.24      | 6.21           | +2.52      | 3.71           | -2.74      | 68.72          | 68.72      |
| Vancouver Wash.            | 1.72           | -5.28      | 3.16           | -0.92      | 0.47           | -3.69      | 0.77           | -1.72      | 0.55           | -0.31      | 1.61           | +1.54      | 0.00           | -0.10      | 0.03           | -0.05      | 0.80           | -0.27      | 1.14           | -0.66      | 4.40           | +0.24      | 1.85           | -5.16      | 68.72          | 68.72      |
| Vernonia                   | 0.87           | -0.98      | 0.57           | -0.08      | 0.15           | -0.75      | 0.10           | -0.56      | 0.56           | -0.29      | 0.61           | +0.22      | 0.04           | -0.20      | 0.07           | -0.01      | 0.16           | -0.23      | 0.07           | -0.99      | 1.12           | +0.19      | 1.01           | -0.51      | 68.72          | 68.72      |
| <b>SOUTHERN OREGON.</b>    |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |
| Ashland                    | 10.63          | -3.41      | 14.48          | +4.61      | 5.56           | -2.15      | 3.13           | -3.32      | 2.67           | -1.04      | 1.83           | -0.80      | 0.55           | -0.71      | 1.28           | +0.67      | 6.78           | -3.21      | 3.36           | -3.94      | 16.75          | +7.65      | 8.16           | -5.64      | 68.72          | 68.72      |
| Buckhorn Farm              | 1.26           | -0.37      | 0.75           | -0.61      | 1.05           | -1.02      | 0.82           | -0.53      | 1.11           | -0.73      | 1.52           | +0.45      | 0.09           | -0.31      | 0.21           | -0.02      | 0.36           | -0.70      | 0.40           | -0.88      | 2.38           | +1.38      | 1.47           | -0.11      | 68.72          | 68.72      |
| Grant's Pass               | 3.72           | -3.63      | 5.83           | +1.33      | 2.10           | -1.54      | 0.95           | -1.31      | 0.65           | -0.68      | 1.31           | +0.23      | 0.80           | -0.60      | 0.09           | -0.01      | 2.74           | +1.03      | 1.15           | -1.80      | 7.35           | +3.47      | 4.17           | -4.38      | 68.72          | 68.72      |
| Jacksonville               | 0.50           | 0.50       | 0.36           | 0.36       | 0.42           | 0.42       | 0.23           | 0.23       | 0.65           | 0.65       | 0.77           | 0.77       | 0.04           | 0.04       | 0.04           | 0.04       | 0.38           | 0.38       | 0.26           | 0.26       | 0.73           | 0.73       | 0.31           | 0.31       | 68.72          | 68.72      |
| Placer                     | 1.43           | -0.49      | 1.33           | +0.25      | 0.66           | -0.87      | 0.94           | -0.11      | 1.55           | +0.08      | 0.94           | -1.05      | 0.21           | -0.40      | 0.06           | -0.15      | 0.55           | -0.06      | 0.59           | -0.41      | 2.08           | +1.21      | 0.89           | -4.57      | 68.72          | 68.72      |
| Roseburg                   | 0.82           | -2.04      | 0.98           | -1.00      | 0.30           | -1.08      | 0.11           | -0.62      | 0.95           | -0.61      | 0.90           | +0.37      | 0.17           | +0.02      | 0.02           | -0.12      | 0.85           | -0.33      | 0.13           | -1.33      | 2.13           | +0.39      | 1.14           | -2.04      | 68.72          | 68.72      |
| Williams                   | 0.31           | -1.17      | 0.63           | -0.37      | 0.44           | -0.30      | 0.18           | -0.60      | 0.52           | -0.27      | 0.56           | +0.26      | 0.17           | -0.18      | 0.07           | -0.27      | 0.11           | -0.49      | 0.18           | -0.66      | 2.13           | +0.39      | 1.14           | -2.04      | 68.72          | 68.72      |
| <b>COLUMBIA RIVER VAL.</b> |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |                |            |
| Arlington                  | 1.88           | -0.30      | 1.33           | -0.48      | 1.52           | +0.25      | 1.83           | +0.10      | 2.20           | +0.22      | 0.84           | -0.43      | 0.22           | -0.19      | 0.22           | -0.09      | 0.56           | -0.40      | 1.09           | -0.50      | 3.74           | +1.94      | 0.85           | -1.63      | 68.72          | 68.72      |
| Cascade Locks              | 2.91           | -1.20      | 0.78           | -1.12      | 1.91           | -0.49      | 2.73           | +0.34      | 1.61           | -0.56      | 0.51           | -0.59      |                |            |                |            |                |            |                |            |                |            |                |            |                |            |

LOCATION OF OBSERVING AND FORECAST DISPLAY STATIONS.





## Special Wheat Reporters.

| Reporters.          | Stations.        | Reporters.            | Stations.           | Reporters.             | Stations.          | Reporters.            | Stations.       |
|---------------------|------------------|-----------------------|---------------------|------------------------|--------------------|-----------------------|-----------------|
| Baker, M. M. ....   | Weston, Ore.     | Githens, L. A. ....   | Athens, Ore.        | Mays, F. W. D. ....    | Pomeroy, Wash.     | Robbins, J. H. ....   | La Grande, Ore. |
| Balmer, J. A. ....  | Pullman, Wash.   | Henwood, G. T. ....   | Palouse City, Wash. | Nottingham, R. L. .... | Oakdale, Wash.     | Smith, Arthur ....    | Heppner, Ore.   |
| Brandt, A. M. ....  | Rockford, Wash.  | Hilton, Wm. ....      | Pendleton, Ore.     | Newman, F. ....        | Walla Walla, Wash. | Stoneberger, Adam     | Colfax, Wash.   |
| Brown, Geo. D. .... | Moscow, Idaho.   | Henrichs, Wm. ....    | Moro, Ore.          | Postmaster ....        | Endicott, Wash.    | Wilkinson, H. E. .... | Spokane, Wash.  |
| Collins, E. J. .... | The Dalles, Ore. | Kennedy, Geo. A. .... | Ritzville, Wash.    |                        |                    |                       |                 |

## Daily Forecast and Frost Display Stations.

| Stations.          | Displaymen.           | Stations.            | Displaymen.           | Stations.           | Displaymen.            | Stations.             | Displaymen.      |
|--------------------|-----------------------|----------------------|-----------------------|---------------------|------------------------|-----------------------|------------------|
| Albany ..... Ore.  | F. M. French.         | Corvallis ..... Ore. | Oregon Agri. College. | Oregon City... Ore. | T. F. Cowing, Jr.      | Springfield .... Ore. | Washburn & Sons. |
| Arlington ..... "  | C. G. Burkhart.       | Eugene ..... "       | J. H. Day.            | Pendleton ..... "   | Prof. H. L. Talkington | Stayton ..... "       | W. H. Cooper.    |
| Ashland ..... "    | F. H. Carter.         | Forest Grove... "    | Prof. A. R. Sweetser. | Portland ..... "    | U. S. Weather Bureau.  | The Dalles ..... "    | Athletic Club.   |
| Aumsville ..... "  | H. Klas.              | La Grande ..... "    | J. H. Robbins.        | Roseburg ..... "    | U. S. Weather Bureau.  | Turner ..... "        | G. F. Robertson. |
| Aurora ..... "     | Postmaster.           | Monmouth ..... "     | Normal School.        | Salem ..... "       | Secretary of State.    | Weston ..... "        | M. A. Baker.     |
| Baker City ..... " | U. S. Weather Bureau. | Mount Angel... "     | Dr. Urban Fisher.     |                     |                        |                       |                  |

## Voluntary Observers.

| Stations.             | Observers.            | Stations.          | Observers.            | Stations.            | Observers.             | Stations.           | Observers.            |
|-----------------------|-----------------------|--------------------|-----------------------|----------------------|------------------------|---------------------|-----------------------|
| Astoria ..... "       | U. S. Weather Bureau. | Eugene ..... "     | University of Oregon. | La Grande ..... "    | J. H. Robbins.         | Placer ..... "      | Wm. H. Hampton.       |
| Albany ..... "        | C. G. Burkhart.       | Fairview ..... "   | Wm. Bettys.           | Lake View ..... "    | A. Y. Beach.           | Portland ..... "    | U. S. Weather Bureau. |
| Arlington ..... "     | R. E. Smith.          | Falls City ..... " | Frank Butler.         | Langlois ..... "     | S. T. Malehorn.        | Prineville ..... "  | George Summers.       |
| Ashland ..... "       | F. H. Carter.         | Fife ..... "       | Mrs. E. S. Merritt.   | Lone Rock ..... "    | R. M. Johnson.         | Riverside ..... "   | J. D. Fairman.        |
| Bandon ..... "        | George Bennett.       | Forest Grove... "  | Pacific University.   | Lorella ..... "      | J. F. Wisner.          | Roseburg ..... "    | U. S. Weather Bureau. |
| Baker City ..... "    | U. S. Weather Bureau. | Fort Canby, Wash.  | U. S. Weather Bureau. | McMinnville... "     | Prof. A. M. Brumback.  | Salem ..... "       | C. T. Roberts.        |
| Bay City ..... "      | Capt. J. J. Dawson.   | Fort Klamath... "  | B. L. Cunningham.     | Miramonte Farm..     | G. Muecke.             | Silver Lake ..... " | G. B. Wardwell.       |
| Biallocks ..... "     | C. R. Smead.          | Gardiner ..... "   | J. S. Gray.           | Monmouth ..... "     | State Normal School.   | Sparta ..... "      | J. A. Wright.         |
| Beulah ..... "        | Henry A. Smith.       | Glenora ..... "    | Mrs. Jennie A. Reeber | Monroe ..... "       | Jno. H. Starr.         | Stafford ..... "    | J. P. Gage.           |
| Buckhorn Farm..       | E. F. Meissner.       | Government Camp.   | O. C. Yocum.          | Moro ..... "         | Wm. Henrichs.          | The Dalles ..... "  | S. L. Brooks.         |
| Burns ..... "         | W. C. Byrd.           | Grant's Pass... "  | J. B. Paddock.        | Mt. Angel ..... "    | Rev. Dr. Urban Fisher. | Tillamook Rock..    | U. S. L. H. Keeper.   |
| Canyon City ..... "   | Mark Rullison.        | Happy Valley... "  | J. H. Neal.           | Nehalem ..... "      | J. M. Alley.           | Toledo ..... "      | Otto O. Krogstad.     |
| Cascade Locks... "    | W. G. Brown.          | Heppner ..... "    | A. Smith.             | Newberg ..... "      | O. M. Coffin.          | Umatilla ..... "    | J. W. Duncan.         |
| Corvallis ..... "     | Oregon Agri. College. | Hood River ..... " | Dr. P. G. Barrett.    | New Bridge ..... "   | Frank Craig.           | Vale ..... "        | Finley McDonald.      |
| Coquille River L. H.  | U. S. L. H. Keeper.   | Irrington ..... "  | Dr. George Wigg.      | Newport ..... "      | J. E. Mathews.         | Vernonia ..... "    | L. W. Van Dyke.       |
| Crescent City... Cal. | D. S. Sartwell.       | Jacksonville... "  | E. Britt.             | Payette ..... Idaho. | Dr. F. B. Delano.      | Walla Walla, Wash.  | U. S. Weather Bureau. |
| Dayville ..... "      | J. Campbell-Martin.   | Joseph ..... "     | J. D. McCully.        | Pendleton ..... "    | Wm. Hilton.            | Weston ..... "      | Miss M. M. Baker.     |
| Ella ..... "          | W. B. Parsons.        | Klamath Falls... " | Otto Heidrich.        | P. Ranch ..... "     | G. H. Marsden.         | Williams ..... "    | W. C. Stites.         |

## Crop Correspondents.

| Correspondents.        | Stations.      | Correspondents.        | Stations.     | Correspondents.        | Stations.        | Correspondents.       | Stations.     |
|------------------------|----------------|------------------------|---------------|------------------------|------------------|-----------------------|---------------|
| Ainsworthy, J. W. .... | Wasco.         | Elliott, J. C. ....    | Damascus.     | King, W. C. ....       | Sand Lake.       | Ruble, David .....    | Waldport.     |
| Arnold, A. M. ....     | Rural.         | Esteb, Sam'l .....     | Gooseberry.   | Kleinsmith, Henry ..   | Clarke.          | Schmitt, Henry .....  | Athens.       |
| Baker, A. ....         | Graeme.        | Fanno, A. R. ....      | Progress.     | Kloetsch, Jacob ....   | Stayton.         | Scott, Henry .....    | Melrose.      |
| Baker, H. J. ....      | Pine.          | Farnsworth, Frank ..   | Hardman.      | Krogstad, Otto O. .... | Toledo.          | Shambrook, D. R. .... | Roseburg.     |
| Baker, Maude M. ....   | Weston.        | Fitch, C. W. ....      | Cornelius.    | Kruse, J. L. ....      | Stafford.        | Stiles, W. C. ....    | Williams.     |
| Bard, S. W. ....       | Aumsville.     | Fletcher, J. T. ....   | Gales Creek.  | Lamb, F. M. ....       | Tillamook.       | Shanks, Fernando ..   | Mt. Angel.    |
| Beach, E. R. ....      | Lexington.     | Eligg, Geo. W. ....    | Endersby.     | Leavitt, Leigh .....   | Pleasant Valley. | Shattuck, C. L. ....  | Hillsboro.    |
| Beatty, E. J. ....     | Chemawa.       | Forbes, S. W. ....     | Browntown.    | Lichtenhuler, W. C. .. | Wilsonville.     | Shook, Jno. D. ....   | Dairy.        |
| Beck, Jas. ....        | New Bridge.    | Funk, Louis .....      | Logan.        | Loggan, R. O. ....     | Philomath.       | Shorb, Jno. D. ....   | Gales Creek.  |
| Belshaw, W. D. ....    | Redland.       | Garret, J. H. ....     | Cross Keys.   | MacPherson, A. C. .... | Sumpter.         | Shuck, Pearl V. ....  | Monitor.      |
| Benson, Alvan ....     | Cascade Locks. | Farrigus, J. ....      | Greenville.   | Mosher, D. H. ....     | Redland.         | Simmons, Grover ..    | Howell.       |
| Bock, G. A. ....       | Aurora.        | Gault, D. M. C. ....   | Hillsboro.    | Massie, W. A. ....     | Merlin.          | Sizemore, J. A. ....  | Juntura.      |
| Boles, W. H. ....      | Philomath.     | Gaylord, E. S. ....    | Dilley.       | Mays, E. M. ....       | Elk City.        | Smith, Dr. C. J. .... | Pendleton.    |
| Bond, Samuel L. ....   | Irving.        | Githens, L. A. ....    | Athens.       | McAlister, E. H. ....  | Eugene.          | Smith, M. G. ....     | Hubbard.      |
| Bradford, I. N. ....   | North Powder.  | Gourley, Jas. G. ....  | Ona.          | McClain, Willard ....  | Buena Vista.     | Smith, R. M. ....     | Monmouth.     |
| Brattain, J. C. ....   | Springfield.   | Greer, Geo. H. ....    | Dundee.       | McCormack, H. F. ....  | Eugene.          | Snyder, H. A. ....    | Aurora.       |
| Bristow, H. T. ....    | Dusty.         | Hackenberg, Jos. ....  | Rainier.      | McKee, D. A. ....      | McKee.           | Starr, M. T. ....     | Monroe.       |
| Burkhardt, C. G. ....  | Albany.        | Haines, C. A. ....     | Narrows.      | McLane, C. E. ....     | Suver.           | Steiner, J. ....      | Wolf Creek.   |
| Buxton, H. T. ....     | Buxton.        | Haines, J. A. ....     | Eckley.       | McMahan, O. A. ....    | Thurston.        | Stitt, W. P. ....     | Seal Rock.    |
| Callahan, M. F. ....   | Wardton.       | Hall, E. ....          | Prairie City. | Menefee, W. R. ....    | Dufur.           | Stewart, W. D. ....   | Gervais.      |
| Cates, John A. ....    | Telocaset.     | Harbinson Bros. ....   | Hood River.   | Merrill, N. S. ....    | Merrill.         | Stone, H. H. ....     | Oakville.     |
| Churchill, J. L. ....  | Coles Valley.  | Harlan, J. R. ....     | Harlan.       | Miley, Henry ....      | Wilsonville.     | Swan, G. G. ....      | Dora.         |
| Churchill, J. S. ....  | Springfield.   | Harris, B. E. ....     | Sumpter.      | Mills, Ira .....       | Manning.         | Sweeney, R. H. ....   | Woodburn.     |
| Clark, O. D. ....      | Seal Rock.     | Harrington, Marie ..   | Highland.     | Mills, Seth A. ....    | Newberg.         | Temple, W. P. ....    | Pendleton.    |
| Clark, P. F. ....      | Zena.          | Haworth, J. L. ....    | Springbrook.  | Moore, H. B. ....      | Namene.          | Thiel, Wm. ....       | Yoncola.      |
| Clarke, Wm. B. ....    | Milwood.       | Hayer, T. F. ....      | Woodburn.     | Morris, D. M. ....     | Turner.          | Thiessen, H. ....     | Milwankie.    |
| Clarke, Wm. J. ....    | Gervais.       | Heath, C. A. ....      | Grass Valley. | Morrison, A. ....      | Kerby.           | Thompson, C. D. ....  | Dusty.        |
| Colt, J. H. ....       | Summerville.   | Heisler, M. ....       | Dufur.        | Moulton, Geo. T. ....  | Coquille.        | Tobin, W. H. ....     | New Bridge.   |
| Cook, Jno. R. ....     | Isabel.        | Henrichs, P. D. ....   | Hood River.   | Mayton, E. L. ....     | Forest Grove.    | Tooze, Chas. T. ....  | Wilsonville.  |
| Covum, U. T. ....      | Wapintia.      | Henrichs, Wm. ....     | Moro.         | Newell, W. K. ....     | Dilly.           | Underwood, P. P. .... | Boyd.         |
| Crabtree, Newton... "  | Scio.          | Henry, Jno. ....       | Beaverton.    | Newhouse, C. E. ....   | Springbrook.     | Vidito, Willis ....   | Alsea.        |
| Cramer, J. B. ....     | Clackamas.     | Hervey, J. C. ....     | Lee.          | Oakerman, Paul L. .... | Reedville.       | Vincent, T. T. ....   | Monmouth.     |
| Cummings, Wm. L. ....  | Shaw.          | Hillegas, M. J. ....   | Springfield.  | Palmer, A. C. ....     | Mitchell.        | Walker, S. F. ....    | Forest Grove. |
| Cunningham, B. ....    | Liberty.       | Homer, F. C. ....      | Ashland.      | Parker, J. B. ....     | Independence.    | Watson, A. Lyon ....  | Springbrook.  |
| Curtis, W. ....        | Forest Grove.  | Mulino .....           | Mulino.       | Parsons, W. B. ....    | Ella.            | Welsh, John R. ....   | Sunnyside.    |
| Custer, A. D. ....     | Murphy.        | Hoxie, J. M. ....      | Wildersville. | Patrick, J. W. ....    | Hazel Dell.      | Wheeler, J. W. ....   | Newberg.      |
| Daly, J. H. ....       | Macksburg.     | Hudemann, J. ....      | Helix.        | Patton, T. B. ....     | Macleay.         | White, F. M. ....     | Gales Creek.  |
| Davis, E. W. ....      | Union.         | Huffman, I. W. ....    | Union.        | Payne, S. L. ....      | Westfall.        | Whitten, John D. .... | Kingsley.     |
| Davis, G. E. ....      | Lorella.       | Hug, Henry ....        | Elgin.        | Porter, A. A. ....     | Grave.           | Williams, W. H. ....  | Aurora.       |
| Dexter, Robert ....    | Heppner.       | Hunt, Jno. O. ....     | Clymer.       | Pound, F. L. ....      | Aumsville.       | Wilson, C. D. ....    | Logan.        |
| Dillard, Jno. ....     | Olete.         | Isaac, S. T. ....      | Helix.        | Powell, J. S. S. ....  | Buena Vista.     | Wilson, F. P. ....    | Warner Lake.  |
| Diller, Edw. ....      | Melrose.       | Jack, Henry ....       | Farmington.   | Powell, W. C. ....     | McMinnville.     | Wise, Eliza E. ....   | Amity.        |
| Dilley, E. G. ....     | Wren.          | Johnson, Free ....     | Roseburg.     | Price, E. H. ....      | Ilabe.           | Wood, John T. ....    | Cleveland.    |
| Dodd, C. J. ....       | Springfield.   | Johnson, J. C. ....    | Scappoose.    | Rees, J. H. ....       | Springbrook.     | Woodruff, E. T. ....  | Liberal.      |
| Dosch, Henry E. ....   | Hillsdale.     | Jones, C. E. ....      | Eight Mile.   | Rietmann, Paul ....    | Ione.            | Wright, Silas ....    | Sheridan.     |
| Duncan, W. C. ....     | Turner.        | Jory, Jno. W. ....     | Salem.        | Robinson, F. M. ....   | Beaverton.       | Yates, Chris P. ....  | Elmira.       |
| Edwards, Frank E. .... | Corvallis.     | Kimberland, G. H. .... | Mt. Vernon.   | Robinson, Grace ....   | Clackamas.       | Yates, Jas. H. ....   |               |
| Egli, Jno. ....        | Dundee.        | King, J. R. ....       | Weston.       |                        |                  |                       |               |