# Climatological Data for Oregon Agricultural Regions 

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# Climatological Data for Oregon Agricultural Regions 



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Oregon Climate Service Oregon State University

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# Climatological Data for Oregon Agricultural Regions 

## Introduction

Agriculture is Oregon's second largest industry, with gross farm sales of nearly $\$ 2.5$ billion in 1989. Due to the diversity of the climate, topography, and vegetation in Oregon, agriculture in the state is a highly diverse industry. Sales totaled at least $\$ 1$ million for 87 different commodities in 1989 (Oregon Blue Book, 1992). The top five products included cattle and calves, farm forest products, wheat, nursery products, and dairy products.

Oregon has many different climate regions, ranging from mid-latitude rain forest to high desert. Areas west of the Cascades are dominated by the Pacific Ocean throughout the year; this brings generally wet, cool winters and warm, dry summers to those areas. To the east of the Cascades, however, lie generally dry areas in the 'rain shadow' of the mountain range. Most of the eastern two-thirds of the state receives less than 15 inches of rain per year, with some areas recording as little as 5 inches. This is in stark contrast to the Coast Range, where some locations approach 200 inches in an average year.
Temperature and cloud cover differences between west and east are also quite significant.

This climatic diversity is the primary reason for the complexity of Oregon agricultural practices. The agricultural community has been aware of this for many years and has paid careful attention to climate data and long-term trends.

In 1980, a publication with the same title as this document was published by the OSU Agricultural Experiment Station (Bates, 1980). Long-term data for 17 stations in Oregon were included in the report. This report serves as an update of that publication, although several of the stations have been changed to obtain a more representative sampling of agricultural regions. Data for the period 196190 were used for each station included here.

Figure 1 is a map showing the 9 Oregon climatic zones, as well as the stations for which data are presented later. Two of the zones have no stations included: the Northern Cascades (Zone 4) and the High Plateau (Zone 5). The relatively high elevations of these zones causes them to be of minor importance in most aspects of agriculture (with the exception of forestry).

Table 1 lists the locations, elevations, and other pertinent data for the stations in this document. Most of the stations are Agricultural Experiment Stations or National Weather Service offices. The others are public or private agencies who record weather data for the National Weather Service's cooperative observation program.


Figure 1. Oregon Climatic Zones and Location of Individual Climate Stations

Table 1. Station Information for Climate Stations

| Station Name | Station No. | Latitude (N) |  | Longitude (W) |  | Elevation <br> (ft. MSL) | County | Agency |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Degrees | Minutes | Degrees | Minutes |  |  |  |
| Burns | 351175 | 43 | 34 | 118 | 57 | 4140 | Harney | National Weather Service |
| Corvallis | 351862 | 44 | 37 | 123 | 12 | 230 | Benton | OSU Ag Experiment Station |
| Hood River | 354003 | 45 | 40 | 121 | 31 | 500 | Hood River | OSU Ag Experiment Station |
| Klamath Falls | 354506 | 42 | 12 | 121 | 46 | 4100 | Klamath | Pacific Power and Light |
| Lakeview | 354670 | 42 | 13 | 120 | 22 | 4780 | Lake | Radio Station KQIK |
| Madras | 355139 | 44 | 37 | 121 | 7 | 2230 | Jefferson | City of Madras |
| Malheur Expt. Stn. | 355160 | 43 | 58 | 117 | 1 | 2240 * | Malheur | OSU Ag Experiment Station |
| Medford | 355429 | 42 | 22 | 122 | 52 | 1310 | Jackson | National Weather Service |
| Moro | 355734 | 45 | 28 | 120 | 43 | 1870 | Sherman | OSU Ag Experiment Station |
| North Bend | 356073 | 43 | 25 | 124 | 15 | 10 | Coos | National Weather Service |
| N. Willamette Expt. Stn. | 356151 | 45 | 16 | 122 | 45 | 150 | Clackamas | OSU Ag Experiment Station |
| Pendleton | 356546 | 45 | 40 | 118 | 51 | 1490 | Umatilla | National Weather Service |
| Squaw Butte | 358029 | 43 | 28 | 119 | 43 | 4660 | Harney | OSU Ag Experiment Station |
| The Dalles | 358407 | 45 | 36 | 121 | 12 | 100 | Wasco | The Dalles Fire Department |
| Tillamook | 358494 | 45 | 27 | 123 | 52 | 10 | Tillamook | Radio Station KTIL |
| Union | 358746 | 45 | 13 | 117 | 52 | 2770 | Union | OSU Ag Experiment Station |

While this report should answer many climate-related questions regarding various regions in Oregon, more specific information may be needed. Currently there are approximately 250 cooperative stations in Oregon which record daily precipitation and, in many cases, temperature. Additional data sites are operated by several Federal agencies, including the Soil Conservation Service, the Bureau of Land Management, and the U.S. Forest Service. Should the reader require more detailed information for stations in this document or for other locations in Oregon, please contact:

Oregon Climate Service
316 Strand Ag Hall
Oregon State University
Corvallis, Oregon 97331
Phone: (503) 737-5705
Fax: (503) 737-2540
We hope that this publication is of use to you. Please contact us if we can be of service.

George H. Taylor<br>State Climatologist

## Bums, Oregon

Latitude: $\quad 43^{\circ} 35^{\prime}$
Longitude: $\quad 118^{\circ} 57^{\prime}$
Elevation: 4140
County:
Harney
Station Number: 351175
Agency: National Weather Service

Station History:

| \atince | Whrydure | Elevation | Staripare | End Wate |
| :---: | :---: | :---: | :---: | :---: |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4206 | 10/1/03 | 4/1/16 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4206 | 3/1/17 | 4/1/21 |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03{ }^{\prime}$ | 4206 | 12/13/30 | 1/30/38 |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4154 | 1/30/38 | 9/1/42 |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4143 | 9/1/42 | 1/1/48 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4140 | 1/1/48 | 6/1/50 |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4150 | 6/1/50 | 9/30/51 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4150 | 10/1/51 | 5/1/52 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4150 | 5/1/52 | 12/1/56 |
| $43^{\circ} 35$ | $119^{\circ} 03^{\prime}$ | 4150 | 1/1/57 | 1/1/58 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4150 | 1/1/58 | 1/1/66 |
| $43^{\circ} 35{ }^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4140 | 1/1/66 | 1/1/70 |
| $43^{\circ} 35^{\prime}$ | $119^{\circ} 03^{\prime}$ | 4140 | 1/1/70 | 2/1/80 |
| $43^{\circ} 35^{\prime}$ | $118^{\circ} 57^{\prime}$ | 4140 | 2/1/80 | 1/1/84 |
| $43^{\circ} 35{ }^{\prime}$ | $118^{\circ} 57^{\prime}$ | 4140 | 1/1/84 | present |

## Monthly Means and Extremes

Burns, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 35.0 | 41.7 | 48.4 | 56.7 | 65.9 | 75.1 | 84.6 | 83.1 | 73.9 | 62.2 | 46.0 | 35.9 | 59.0 |
| Minimum | 15.1 | 20.7 | 25.4 | 29.2 | 37.1 | 44.3 | 50.3 | 48.4 | 39.5 | 31.0 | 23.5 | 16.1 | 31.7 |
| Mean | 25.1 | 31.2 | 37.0 | 43.2 | 51.6 | 59.8 | 67.5 | 65.7 | 56.7 | 46.5 | 34.8 | 26.0 | 45.4 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 57 | 62 | 71 | 84 | 94 | 95 | 100 | 102 | 97 | 86 | 68 | 54 | 102 |
| Minimum | -27 | -28 | 4 | 14 | 20 | 23 | 25 | 28 | 17 | 7 | -13 | -28 | -28 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.53 | 1.11 | 1.28 | . 70 | . 91 | . 68 | . 38 | . 52 | . 52 | . 77 | 1.47 | 1.70 | 11.57 |
| Extreme 24 hr . | . 56 | . 81 | . 71 | . 52 | . 69 | . 62 | . 81 | . 99 | . 74 | . 75 | . 62 | . 67 | . 99 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 4 | 1.6 | 8.5 | 7.3 | 1.2 |  |  |  | 18.9 |
| Maximum $32^{\circ}$ or less | 12.8 | 6.8 | . 4 |  |  |  |  |  |  |  | 3.7 | 12.0 | 35.7 |
| Minimum $32^{\circ}$ or less | 30.1 | 26.3 | 25.8 | 20.1 | 9.7 | 2.6 | . 6 | . 4 | 8.4 | 22.5 | 26.9 | 30.4 | 203.7 |
| Minimum $0^{\circ}$ or less | 5.3 | 2.2 |  |  |  |  |  |  |  |  | 1.1 | 5.1 | 13.7 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 9.1 | 9.1 | 13.6 | 8.0 | 8.5 | 6.1 | 2.6 | 3.7 | 4.5 | 5.9 | 11.5 | 9.7 | 92.3 |
| . 10 inches or more | 2.8 | 3.9 | 6.4 | 2.9 | 3.6 | 2.0 | 1.3 | 1.3 | 2.0 | 2.7 | 4.9 | 4.5 | 38.2 |
| . 50 inches or more | . 1 | . 3 | . 6 | . 2 | . 4 | . 3 | . 4 | . 2 | . 3 | . 4 | . 2 | . 3 | 3.6 |
| 1.00 inches or more |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1239 | 955 | 871 | 659 | 423 | 193 | 50 | 76 | 262 | 576 | 908 | 1209 | 7421 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 0 | 0 | 2 | 21 | 125 | 292 | 542 | 488 | 233 | 49 | 0 | 0 | 1752 |

Total Monthly Precipitation (in inches)
Burns, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 69 | 1.22 | 1.76 | . 21 | . 82 | . 83 | . 36 | . 12 | . 61 | . 92 | . 99 | 2.24 | 10.77 |
| 1962 | . 77 | 2.13 | 1.22 | . 23 | 1.32 | . 04 | . 01 | . 09 | . 33 | 3.68 | 1.23 | 1.02 | 12.07 |
| 1963 | 1.42 | 1.15 | 1.15 | 2.10 | 2.31 | . 83 | . 28 | . 25 | 1.20 | . 32 | 1.86 | 1.02 | 13.89 |
| 1964 | 2.09 | . 25 | . 85 | . 58 | . 78 | 1.93 | . 53 | 1.21 | . 06 | . 26 | 2.02 | 5.47 | 16.03 |
| 1965 | 2.40 | . 22 | . 19 | 1.28 | . 75 | 1.93 | . 52 | 1.10 | . 00 | . 14 | 1.75 | . 82 | 11.10 |
| 1966 | . 79 | . 73 | . 77 | . 15 | . 18 | 1.15 | . 22 | . 63 | . 80 | . 33 | 2.03 | 1.98 | 9.76 |
| 1967 | 2.15 | . 42 | 2.44 | 1.31 | . 71 | . 84 | . 02 | . 01 | . 32 | 1.22 | . 81 | 1.03 | 11.28 |
| 1968 | . 99 | 1.63 | . 13 | . 09 | 1.14 | . 21 | . 00 | 1.73 | . 03 | . 73 | 2.22 | 1.83 | 10.73 |
| 1969 | 3.17 | 1.47 | . 31 | . 45 | . 30 | 1.33 | . 00 | . 00 | . 22 | 1.03 | . 46 | 3.10 | 11.84 |
| 1970 | 5.73 | . 72 | . 45 | . 23 | . 66 | . 43 | . 02 | . 00 | . 22 | 1.21 | 3.20 | 2.53 | 15.40 |
| 1971 | 1.77 | . 46 | 2.02 | . 33 | 2.02 | . 98 | 1.14 | . 00 | . 57 | . 51 | 1.62 | 2.06 | 13.48 |
| 1972 | 2.07 | . 97 | 1.83 | . 17 | . 31 | . 40 | . 01 | . 33 | . 47 | . 31 | 1.31 | 2.11 | 10.29 |
| 1973 | 1.37 | . 45 | . 43 | . 15 | 1.06 | . 04 | . 00 | . 31 | . 63 | . 62 | 2.69 | 2.45 | 10.20 |
| 1974 | . 85 | . 82 | 2.42 | . 72 | . 09 | . 01 | . 59 | . 10 | . 00 | . 35 | . 11 | 1.36 | 7.42 |
| 1975 | 1.54 | 1.78 | 1.71 | 1.22 | . 05 | . 38 | . 58 | . 19 | . 07 | 1.35 | . 82 | 1.64 | 11.33 |
| 1976 | 1.49 | 1.46 | . 45 | . 59 | . 37 | . 66 | . 55 | 1.97 | . 51 | . 11 | . 30 | . 00 | 8.46 |
| 1977 | . 69 | . 45 | . 27 | . 16 | 1.67 | . 41 | . 51 | . 29 | 1.11 | . 44 | 2.09 | 2.31 | 10.40 |
| 1978 | 2.54 | 1.42 | 1.56 | 1.88 | . 18 | . 44 | . 45 | . 56 | 1.11 | . 00 | 1.21 | . 54 | 11.89 |
| 1979 | 2.96 | 1.74 | . 99 | . 82 | . 81 | . 21 | . 03 | 1.99 | . 56 | 1.03 | 1.93 | 1.62 | 14.69 |
| 1980 | 1.58 | 2.01 | . 61 | . 57 | 1.08 | . 85 | . 26 | . 03 | . 56 | . 88 | . 59 | 1.36 | 10.38 |
| 1981 | . 79 | . 91 | 1.62 | . 84 | 2.14 | . 47 | . 23 | . 18 | . 54 | 1.34 | 2.62 | 3.88 | 15.56 |
| 1982 | 1.15 | 1.70 | . 78 | . 90 | . 64 | . 90 | . 41 | . 35 | 1.06 | 1.43 | 1.09 | 2.56 | 12.97 |
| 1983 | 1.04 | 2.13 | 3.66 | 1.10 | 1.54 | . 31 | 1.09 | . 70 | . 06 | 1.08 | 2.44 | 3.09 | 18.24 |
| 1984 | . 21 | . 76 | 1.71 | . 80 | 1.04 | . 88 | . 49 | 1.16 | . 05 | 1.02 | 2.73 | . 87 | 11.72 |
| 1985 | . 09 | . 49 | 1.03 | . 34 | 1.37 | . 11 | . 92 | . 09 | 1.12 | . 81 | . 97 | . 73 | 8.07 |
| 1986 | 1.41 | 3.50 | 1.33 | . 12 | . 53 | . 26 | . 37 | . 04 | 2.13 | . 34 | 30 | . 28 | 10.61 |
| 1987 | 1.30 | 1.00 | 1.54 | . 75 | . 56 | 1.50 | 1.22 | . 16 | . 02 | M | M | M | M |
| 1988 | M | . 19 | . 64 | 1.22 | . 55 | . 96 | . 04 | . 23 | . 41 | . 00 | 2.58 | 1.01 | 7.83 |
| 1989 | . 65 | . 80 | 3.15 | 1.12 | 1.02 | 1.06 | . 70 | 1.14 | . 78 | . 37 | . 48 | . 07 | 11.34 |
| 1990 | . 61 | . 24 | M | . 52 | 1.32 | . 12 | . 00 | . 69 | . 08 | . 52 | . 31 | . 26 | 4.67 |
| Mean | 1.53 | 1.11 | 1.28 | . 70 | . 91 | . 68 | 39 | . 52 | . 52 | . 77 | 1.47 | 1.70 | 11.46 |
| Maximum | 5.73 | 3.50 | 3.66 | 2.10 | 2.31 | 1.93 | 1.22 | 1.99 | 2.13 | 3.68 | 3.20 | 5.47 | 18.24 |
| Minimum | . 09 | . 19 | . 13 | . 09 | . 05 | . 01 | . 00 | . 00 | . 00 | . 00 | . 11 | . 00 | 4.67 |
| StdDev | 1.12 | . 75 | . 88 | . 53 | . 60 | . 53 | . 36 | . 60 | . 49 | . 71 | . 89 | 1.22 | 2.86 |

## Dates of Spring and Fall Low Temperatures

Burns, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 23-Apr | 4-May | 27-May | 27-May | 20-Oct | 22-Sep | 3-Sep | 3-Sep |
| 1962 | 30-Apr | 4-Jun | 5-Jun | 2-Jul | 7-Oct | 29-Sep | 28-Sep | 27-Aug |
| 1963 | 22-Apr | 1-May | 22-Jun | 29-Jun | 26-Oct | 23-Oct | 13-Oct | 7-Oct |
| 1964 | 23-May | 23-May | 26-May | 27-Jun | 17-Oct | 16-Oct | 29-Aug | 19-Aug |
| 1965 | 17-May | 17-May | 27-Jun | 27-Jun | 17-Sep | 17-Sep | 16-Sep | 29-Aug |
| 1966 | 20-Apr | 23-May | 4-Jun | $3-\mathrm{Jul}$ | 14-Oct | 9-Oct | 12-Sep | 30-Aug |
| 1967 | 29-Apr | 12-May | 14-May | 3-Jun | 26-Oct | 6-Oct | 12-Sep | 12-Sep |
| 1968 | 24-Apr | 7-May | 22-May | 29-Jun | 8-Oct | 22-Sep | 20-Sep | 21-Aug |
| 1969 | 30-Apr | 3-May | 3-May | 27-Jun | 12-Oct | 3-Oct | 4-Sep | 4-Sep |
| 1970 | 11-May | 14-May | 14-May | 11-Jun | 14-Sep | 14-Sep | 9-Sep | 9-Sep |
| 1971 | 17-May | 20-May | 20-May | 10-Jul | 27-Sep | 18-Sep | 17-Sep | 3-Sep |
| 1972 | 30-Apr | 1-May | 11-Jun | 21-Jul | 25-Sep | 20-Sep | 20-Sep | 17-Aug |
| 1973 | 28-Apr | 18-Jun | 18-Jun | 18-Jun | 3-Oct | 2-Oct | 26-Sep | 1-Sep |
| 1974 | 15-May | 15-May | 8-Jun | 26-Jun | 7-Oct | 6-Oct | 27-Sep | 20-Aug |
| 1975 | 25-May | 25-May | 25-May | 26-Jun | 8-Oct | 8-Oct | 7-Oct | 24-Aug |
| 1976 | 23-Apr | 20-May | 26-Jun | 1-Jul | 18-Oct | 17-Oct | 4-Oct | 26-Aug |
| 1977 | 4-May | 8-May | 28-May | 2-Jun | 3-Nov | 8 -Oct | 17-Sep | 27-Aug |
| 1978 | 21-Apr | 25-May | 26-May | 15-Jun | 22-Oct | 22-Oct | 17-Sep | 17-Aug |
| 1979 | 19-Apr | 29-May | 29-May | 2-Jul | 10-Nov | 26-Oct | 20-Oct | 16-Oct |
| 1980 | 3-Jun | 4-Jun | 27-Jun | 27-Jun | 17-Oct | 29-Aug | 4-Aug | 4-Aug |
| 1981 | 8-May | 8 -Jul | 8 -Jul | 8-Jul | 23-Sep | 21-Sep | 20-Sep | 25-Aug |
| 1982 | 5-May | 8-Jun | 8-Jun | 16-Jul | 2-Oct | 11-Sep | 2-Aug | 2-Aug |
| 1983 | 14-Apr | 13-May | 18-Jun | 10-Jul | 20-Sep | 19-Sep | 9-Sep | 5-Sep |
| 1984 | 28-Apr | 1-Jun | 8-Jun | 22-Jun | 23-Sep | 22-Sep | 21-Sep | 1-Sep |
| 1985 | 12-May | 30-May | 26-Jun | 30-Jun | 28-Sep | 11-Sep | 9-Sep | 8-Aug |
| 1986 | 22-May | 5-Jul | 17-Jul | 17-Jul | 11-Oct | 23-Sep | 10-Sep | 10-Sep |
| 1987 | 19-May | 1-Jun | 2-Jun | 16-Jul | 16-Sep | 16-Sep | 16-Sep | 16-Aug |
| 1988 | 2-May | 19-May | 6-Jul | 7-Jul | 17-Sep | 12-Sep | 8-Sep | 16-Aug |
| 1989 | 19-May | 29-May | 21-Jun | 21-Jun | 4-Oct | 10-Sep | 31-Aug | 31-Aug |
| 1990 | 25-May | 13-Jun | 3-Jul | 3-Jul | 6-Oct | 5-Oct | 16-Sep | 19-Aug |

Probabilities

| 10 | 20-Apr | 3-May | 19-May | 10-Jun | 17-Sep | 11-Sep | 30-Aug | 15-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 23-Apr | 11-May | 25-May | 20-Jun | 23-Sep | 15-Sep | 7-Sep | 17-Aug |
| Median (50\%) | 3-May | 23-May | 8-Jun | 29-Jun | 7-Oct | 22-Sep | 16-Sep | 27-Aug |
| 80 | 19-May | 4-Jun | 26-Jun | 8-Jul | 18-Oct | 8-Oct | 26-Sep | 4-Sep |
| 90 | 23-May | 13-Jun | 3-Jul | 16-Jul | 26-Oct | 17-Oct | 4-Oct | 10-Sep |

## Corvallis. Oregon

Latitude: $\quad 44^{\circ} 38^{\prime}$

Longitude: $\quad 123^{\circ} 12{ }^{\prime}$

Elevation: $\quad 230 \mathrm{ft}$.

County: Benton

Station Number: 351862

Agency: Oregon State University Agricultural Experiment Station

| Station History: | \% \%hauac | Tomgiumie | SIewation | Sarti Pate. | End\%ate\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $44^{\circ} 34^{\prime}$ | $123^{\circ} 17^{\prime}$ | 275 | 4/1/1889 | 7/30/1889 |
|  | $44^{\circ} 34^{\prime}$ | $123^{\circ} 17^{\prime}$ | 275 | 10/24/1889 | 10/15/17 |
|  | $44^{\circ} 34^{\prime}$ | $123^{\circ} 17^{\prime}$ | 275 | 10/15/17 | 7/1/48 |
|  | $44^{\circ} 34^{\prime}$ | $123^{\circ} 17^{\prime}$ | 260 | 7/1/48 | 5/24/52 |
|  | $44^{\circ} 38{ }^{\prime}$ | $123^{\circ} 12^{\prime}$ | 210 | 5/24/52 | 9/1/60 |
|  | $44^{\circ} 38{ }^{\prime}$ | $123^{\circ} 12^{\prime}$ | 210 | 9/1/60 | 10/1/70 |
|  | $44^{\circ} 38^{\prime}$ | $123^{\circ} 12^{\prime}$ | 230 | 10/1/70 | 7/1/74 |
|  | $44^{\circ} 38^{\prime}$ | $123^{\circ} 12^{\prime}$ | 230 | 7/1/74 | present |

Monthly Means and Extremes
Corvallis, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 45.5 | 50.4 | 54.9 | 59.5 | 66.1 | 73.1 | 80.2 | 81.1 | 75.5 | 64.3 | 52.2 | 45.6 | 62.4 |
| Minimum | 32.9 | 35.4 | 37.0 | 38.8 | 43.0 | 48.5 | 50.9 | 51.2 | 47.7 | 41.6 | 37.8 | 34.1 | 41.6 |
| Mean | 39.3 | 42.8 | 46.0 | 49.3 | 54.6 | 60.9 | 65.7 | 66.2 | 61.6 | 53.0 | 45.2 | 39.8 | 52.0 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 64 | 68 | 76 | 83 | 96 | 98 | 103 | 108 | 103 | 92 | 72 | 66 | 108 |
| Minimum | 9 | 7 | 12 | 24 | 28 | 33 | 38 | 37 | 32 | 22 | 15 | -7 | -7 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 6.82 | 5.04 | 4.55 | 2.56 | 1.95 | 1.20 | . 55 | . 87 | 1.51 | 3.11 | 6.77 | 7.72 | 42.67 |
| Extreme 24 hr . | 1.42 | 1.15 | . 98 | . 61 | . 58 | . 45 | . 29 | . 35 | . 62 | . 78 | 1.39 | 1.60 | 1.60 |
| Evaporation in inches |  |  | 1.97 | 3.09 | 4.74 | 6.18 | 7.92 | 7.31 | 5.21 | 2.41 |  |  | 38.82 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 1 | 1.1 | 5.1 | 4.9 | 2.0 | . 1 |  |  | 13.3 |
| Maximum $32^{\circ}$ or less | 1.2 | . 2 |  |  |  |  |  |  |  |  | . 2 | 1.5 | 3.1 |
| Minimum $32^{\circ}$ or less | 14.8 | 9.9 | 6.6 | 3.3 | . 4 |  |  |  |  | 1.7 | 6.1 | 12.2 | 55.0 |
| Minimum $0^{\circ}$ or less |  |  |  |  |  |  |  |  |  |  |  | . 2 | . 2 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 19.4 | 17.3 | 18.2 | 15.3 | 11.9 | 7.4 | 3.3 | 4.2 | 7.5 | 12.7 | 19.7 | 20.8 | 157.6 |
| . 10 inches or more | 12.9 | 11.0 | 11.8 | 7.6 | 5.6 | 3.6 | 1.5 | 2.3 | 3.7 | 7.4 | 13.3 | 13.2 | 93.9 |
| . 50 inches or more | 4.6 | 3.6 | 2.5 | 1.1 | . 8 | . 5 | . 2 | . 4 | . 8 | 2.2 | 5.0 | 5.3 | 27.0 |
| 1.00 inches or more | 1.5 | . 8 | . 5 | . 1 | . 1 | . 1 |  | . 1 | . 1 | . 3 | 1.4 | 1.9 | 7.0 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days@ $65^{\circ} \mathrm{F}$ | 798 | 627 | 590 | 471 | 329 | 153 | 57 | 47 | 129 | 373 | 596 | 783 | 4954 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 3 | 6 | 18 | 58 | 162 | 327 | 485 | 501 | 350 | 123 | 16 | 4 | 2052 |

Total Monthly Precipitation (in inches)
Corvallis, Oregon

|  | Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1961 | 4.80 | 9.91 | 7.46 | 2.23 | 2.05 | . 41 | . 59 | . 33 | 1.18 | 3.84 | 5.79 | 5.58 | 44.17 |
|  | 1962 | 1.21 | 3.82 | 6.37 | 2.90 | 2.31 | . 39 | . 00 | . 57 | 1.60 | 4.62 | 7.89 | 2.90 | 34.58 |
|  | 1963 | 1.64 | 5.23 | 6.30 | 4.64 | 3.94 | . 96 | . 52 | . 65 | . 94 | 2.77 | 7.04 | 3.91 | 38.54 |
|  | 1964 | 11.68 | . 79 | 4.33 | 1.61 | . 55 | . 88 | . 57 | . 23 | . 31 | 1.25 | 9.23 | 13.27 | 44.70 |
|  | 1965 | 11.45 | 1.56 | . 59 | 2.00 | 1.08 | . 52 | . 39 | . 98 | . 04 | 2.12 | 8.70 | 7.69 | 37.12 |
|  | 1966 | 10.21 | 1.78 | 7.21 | . 95 | . 49 | . 76 | . 49 | . 27 | 1.71 | 3.18 | 5.27 | 7.67 | 39.99 |
|  | 1967 | 9.50 | 1.78 | 4.23 | 1.60 | . 85 | . 77 | . 00 | . 00 | . 84 | 6.19 | 3.46 | 6.32 | 35.54 |
|  | 1968 | 7.14 | 7.11 | 3.91 | 1.51 | 3.45 | . 79 | . 34 | 5.24 | 1.99 | 6.32 | 6.52 | 14.42 | 58.74 |
|  | 1969 | 9.35 | 4.27 | 1.81 | 1.94 | 1.64 | 2.46 | . 05 | . 00 | 3.62 | 3.91 | 2.86 | 11.59 | 43.50 |
|  | 1970 | 15.51 | 5.97 | 2.29 | 2.66 | 1.12 | . 53 | . 12 | . 00 | 1.07 | 4.04 | 7.30 | 12.47 | 53.08 |
|  | 1971 | 10.71 | 5.35 | 6.16 | 4.38 | 2.33 | 2.48 | . 02 | . 48 | 3.10 | 2.80 | 9.21 | 10.13 | 57.15 |
|  | 1972 | 10.10 | 5.13 | 6.46 | 4.27 | 2.36 | 1.01 | . 08 | . 24 | 2.28 | . 88 | 4.92 | 9.33 | 47.06 |
|  | 1973 | 5.56 | 1.65 | 3.63 | 1.75 | . 85 | 1.38 | . 02 | . 70 | 2.52 | 2.70 | 18.28 | 12.40 | 51.44 |
|  | 1974 | 11.59 | 7.52 | 8.87 | 2.39 | 1.46 | . 61 | 1.81 | . 00 | . 07 | 1.41 | 6.88 | 8.15 | 50.76 |
|  | 1975 | 4.66 | 5.48 | 4.64 | 2.40 | 2.07 | 1.14 | . 62 | 1.68 | . 00 | 4.30 | 5.51 | 6.47 | 38.97 |
| - | 1976 | 6.59 | 6.71 | 4.45 | 1.98 | 1.14 | . 47 | . 90 | 2.08 | 1.27 | 1.25 | 1.42 | 1.47 | 29.73 |
|  | 1977 | . 96 | 2.97 | 5.09 | 1.02 | 3.43 | 1.13 | . 12 | 1.89 | 3.58 | 2.58 | 8.11 | 11.03 | 41.91 |
|  | 1978 | 7.34 | 4.28 | 2.15 | 4.94 | 3.61 | . 94 | . 29 | 2.34 | 3.40 | . 98 | 3.14 | 4.23 | 37.64 |
|  | 1979 | 2.57 | 8.35 | 2.89 | 2.93 | 2.11 | . 38 | . 43 | 2.67 | 2.15 | 7.21 | 4.11 | 6.26 | 42.06 |
|  | 1980 | 6.69 | 3.88 | 4.02 | 3.63 | 1.46 | 1.75 | . 24 | . 01 | . 96 | 1.87 | 6.29 | 11.33 | 42.13 |
|  | 1981 | 2.27 | 4.44 | 3.00 | 2.37 | 2.99 | 2.58 | . 10 | . 01 | 3.09 | 5.52 | 6.73 | 13.98 | 47.08 |
|  | 1982 | 7.21 | 7.12 | 3.54 | 4.57 | . 49 | 1.51 | . 43 | . 28 | 1.89 | 3.64 | 5.51 | 10.56 | 46.75 |
|  | 1983 | 6.91 | 10.31 | 8.78 | 3.01 | 1.51 | 1.39 | 2.55 | 2.21 | . 53 | 1.05 | 9.93 | 7.35 | 55.53 |
|  | 1984 | 3.26 | 6.92 | 3.82 | 3.41 | 3.67 | 4.34 | . 20 | . 00 | . 74 | 4.65 | 13.55 | 4.01 | 48.57 |
|  | 1985 | . 25 | 3.65 | 4.94 | 1.05 | . 94 | 2.22 | . 54 | . 48 | . 78 | 3.89 | 4.69 | 3.72 | 27.15 |
|  | 1986 | 6.53 | 9.90 | 3.04 | 1.84 | 2.50 | 31 | 1.15 | . 00 | 3.56 | 2.80 | 8.62 | 3.50 | 41.25 |
|  | 1987 | 8.22 | 4.50 | 3.70 | 1.56 | 1.40 | . 29 | 2.23 | . 17 | . 05 | . 27 | 3.90 | 11.42 | 37.71 |
|  | 1988 | 7.12 | 1.70 | 3.90 | 3.33 | 3.84 | 1.83 | . 09 | . 00 | . 73 | . 14 | 10.87 | 3.97 | 37.52 |
|  | 1989 | 4.18 | 3.21 | 6.80 | 1.42 | 1.46 | 1.14 | . 33 | . 87 | . 60 | 2.66 | 3.90 | 3.07 | 29.64 |
|  | 1990 | 9.50 | 5.79 | 2.21 | 2.38 | 1.43 | 1.53 | . 45 | 1.72 | . 83 | 4.56 | 4.87 | 3.54 | 38.81 |
|  | Mean | 6.69 | 4.98 | 4.59 | 2.59 | 2.00 | 1.24 | . 52 | . 87 | 1.47 | 3.10 | 6.76 | 7.62 | 42.39 |
|  | Maximum | 15.51 | 10.31 | 8.87 | 4.94 | 3.94 | 4.34 | 2.55 | 5.24 | 3.62 | 7.21 | 18.28 | 14.42 | 58.74 |
|  | Minimum | . 25 | . 79 | . 59 | . 95 | . 49 | . 29 | . 00 | . 00 | . 00 | . 14 | 1.42 | 1.47 | 27.15 |
|  | StdDev | 3.77 | 2.58 | 2.03 | 1.14 | 1.12 | . 88 | . 63 | 1.15 | 1.17 | 1.81 | 3.37 | 3.83 | 8.12 |

Dates of Spring and Fall Low Temperatures Corvallis, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 22-Jan | 26-Feb | 10-Apr | 26-Apr | 17-Nov | 6-Nov | 8-Oct | 22-Sep |
| 1962 | 27-Feb | 13-Mar | 10-Apr | 4-Jun | 25-Dec | 25-Dec | 23-Nov | $5-\mathrm{Oct}$ |
| 1963 | 30-Jan | 13-Mar | 2-Apr | 13-May | 13-Dec | 29-Nov | 19-Oct | 19-Oct |
| 1964 | 26-Feb | 17-Apr | 6-May | 14-May | 17-Dec | 6-Nov | 17-Oct | 16-Oct |
| 1965 | *** | 19-Mar | 6-May | 14-May | 16-Dec | 13-Dec | 25-Nov | 19-Sep |
| 1966 | *** | 3-Mar | 27-Apr | 1-Jun | *** | *** | 13-Oct | 12-Oct |
| 1967 | *** | 6-Mar | 30-Apr | 10-May | 16-Dec | 12-Dec | 23-Nov | 20-Oct |
| 1968 | 13-Apr | 19-Apr | 24-Apr | 12-Jun | 20-Dec | 15-Nov | 4-Nov | 4-Oct |
| 1969 | 7 -Feb | 14-Mar | 20-Apr | 4-May | 28-Nov | 27-Nov | 26-Nov | 6-Oct |
| 1970 | 6-Jan | 2-Apr | 7-May | 13-May | *** | 29-Oct | 7-Oct | 14-Sep |
| 1971 | 2-Mar | 8-Mar | 24-Apr | 21-May | 6-Nov | 28-Oct | 17-Oct | 23-Sep |
| 1972 | 4-Feb | 29-Mar | $30-\mathrm{Apr}$ | 10-May | 4-Dec | 30-Oct | 27-Sep | 26-Sep |
| 1973 | 27-Jan | 19-Feb | 30-Apr | 1-Jun | *** | 3-Nov | 2-Nov | 2-Oct |
| 1974 | 13-Jan | 9-Mar | 12-Apr | 30-May | *** | 30-Nov | 8-Oct | 5-Oct |
| 1975 | *** | 6-Apr | 20-May | 21-May | *** | 12-Nov | 31-Oct | 31-Oct |
| 1976 | 5-Feb | 12-Mar | 23-Apr | 13-Jun | 28-Nov | 26-Nov | 20-Oct | 19-Oct |
| 1977 | 4-Feb | 14-Mar | 18-Apr | 12-May | *** | 8-Nov | 4-Nov | 27-Oct |
| 1978 | *** | 3-Jan | 5-May | 23-May | 12-Nov | 26-Oct | 22-Oct | 22-Oct |
| 1979 | 3-Feb | 3-Feb | 22-Mar | 7-Jun | *** | 15-Nov | 14-Nov | 17-Oct |
| 1980 | 31-Jan | 12-Feb | $3-\mathrm{Apr}$ | 16-May | *** | 8 -Dec | 11-Nov | 22-Oct |
| 1981 | *** | 5-Mar | 6-Apr | 12-May | *** | 30-Dec | 21-Oct | 11-Oct |
| 1982 | 11-Feb | 11-Feb | 29-Apr | 26-May | 30-Dec | 11-Nov | 2-Nov | 20-Oct |
| 1983 | *** | $5-\mathrm{Feb}$ | 14-Apr | 10-May | 21-Dec | 20-Dec | 16-Oct | 1-Oct |
| 1984 | 21-Jan | 4-Feb | 6-May | 16-May | 19-Dec | 6-Dec | 26-Nov | 24-Sep |
| 1985 | 5-Feb | 11-May | 12-May | 14-May | 13-Nov | 12-Nov | 13-Oct | 30-Sep |
| 1986 | *** | 10-Feb | 24-Apr | 16-May | *** | 10-Dec | $10-\mathrm{Nov}$ | 13-Oct |
| 1987 | 17-Jan | 27-Mar | 19-Apr | 19-May | 26-Dec | 24-Dec | 29-Nov | 16-Oct |
| 1988 | 3-Jan | 23-Feb | 25-Apr | 3-May | 18-Dec | 17-Dec | 28-Oct | 18-Sep |
| 1989 | 9-Feb | 16-Feb | 20-Mar | 18-May | *** | 2-Nov | 15-Oct | 18-Sep |
| 1990 | 19-Feb | 13-Mar | 8-May | 25-May | 20-Dec | 19-Dec | 7-Oct | 6-Oct |

Probabilities

| $10 \%$ | $* * *$ | 4-Feb | 2-Apr | 9-May | 16-Nov | 29-Oct | 7-Oct | 18-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 \%$ | $* * *$ | $11-\mathrm{Feb}$ | 10-Apr | 11-May | 2-Dec | 5-Nov | 13-Oct | 23-Sep |
| Median (50\%) | $28-\mathrm{Jan}$ | 8-Mar | 24-Apr | 17-May | 20-Dec | 26-Nov | 25-Oct | 6-Oct |
| $80 \%$ | $9-\mathrm{Feb}$ | 27-Mar | 6-May | 30-May | $* * *$ | 17-Dec | 15-Nov | 19-Oct |
| $90 \%$ | $26-\mathrm{Feb}$ | 7-Apr | 7-May | 4-Jun | ${ }^{* * *}$ | $24-\mathrm{Dec}$ | 25-Nov | 22-Oct |

## Food River, Oregon

## Latitude: $\quad 45^{\circ} 40^{\prime}$

Longitude: $\quad 121^{\circ} 31^{\prime}$

Elevation: $\quad 500 \mathrm{ft}$.

County: Hood River

Station Number: 354003

Agency: Oregon State University Agricultural Experiment Station

Station History:

| Ftidue | \%orgitace | Elevanion | Searemate | Emajore |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 40^{\prime}$ | $121^{\circ} 31^{\prime}$ | 820 | 1/1/1884 | 12/31/1899 |
| $45^{\circ} 42^{\prime}$ | $121^{\circ} 30^{\prime}$ | 243 | 3/11/1900 | 5/6/04 |
| $45^{\circ} 42^{\prime}$ | $121^{\circ} 30^{\prime}$ | 243 | 5/9/04 | 6/30/07 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 300 | 7/1/07 | 5/15/23 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 275 | 5/15/23 | 11/30/26 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 12/1/26 | 8/4/41 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 8/4/41 | 7/1/48 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 7/1/48 | 8/1/59 |
| $45^{\circ} \cdot 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 8/1/59 | 10/1/65 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 10/1/65 | 1/1/68 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 2/1/68 | 8/1/72 |
| $45^{\circ} 41^{\prime}$ | $121^{\circ} 31^{\prime}$ | 500 | 8/1/72 | present |

## Monthly Means and Extremes

Hood River, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 40.6 | 46.8 | 53.7 | 60.0 | 67.5 | 74.2 | 80.1 | 80.5 | 74.0 | 63.4 | 49.3 | 41.3 | 60.9 |
| Minimum | 28.2 | 31.2 | 34.4 | 38.4 | 43.8 | 50.0 | 53.4 | 52.8 | 45.8 | 38.1 | 34.4 | 29.4 | 40.0 |
| Mean | 34.4 | 39.0 | 44.1 | 49.2 | 55.6 | 62.1 | 66.8 | 66.6 | 59.9 | 50.8 | 41.9 | 35.3 | 50.5 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 62 | 66 | 76 | 88 | 102 | 104 | 104 | 108 | 99 | 88 | 68 | 66 | 108 |
| Minimum | -6 | -5 | 14 | 25 | 28 | 32 | 37 | 36 | 26 | 19 | -5 | -10 | -10 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 5.36 | 3.91 | 2.93 | 1.63 | . 95 | . 69 | . 25 | . 59 | 1.14 | 2.20 | 5.11 | 6.00 | 30.76 |
| Extreme 24 hr . | 2.45 | 2.59 | 1.75 | 1.20 | . 88 | 1.74 | . 87 | 1.27 | 1.73 | 2.67 | 1.83 | 3.05 | 3.05 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 6 | 2.3 | 5.4 | 6.0 | 1.3 |  |  |  | 15.6 |
| Maximum $32^{\circ}$ or less | 5.0 | 1.2 |  |  |  |  |  |  |  |  | . 6 | 3.9 | 10.7 |
| Minimum $32^{\circ}$ or less | 20.5 | 15.5 | 11.8 | 5.1 | . 8 | . 1 |  |  | . 7 | 6.5 | 11.4 | 19.9 | 92.3 |
| Minimum $0^{\circ}$ or less | . 5 | . 3 |  |  |  |  |  |  |  |  |  | . 5 | 1.2 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 16.3 | 13.9 | 14.3 | 11.5 | 8.4 | 5.6 | 2.7 | 3.8 | 6.0 | 10.0 | 18.0 | 16.8 | 127.3 |
| . 10 inches or more | 10.4 | 9.1 | 8.1 | 5.2 | 3.2 | 2.0 | . 7 | 1.7 | 2.7 | 5.5 | 12.0 | 11.5 | 72.1 |
| . 50 inches or more | 3.8 | 2.3 | 1.4 | . 5 | . 1 | . 2 | . 1 | . 3 | . 7 | 1.2 | 3.4 | 3.9 | 17.9 |
| 1.00 inches or more | 1.2 | . 8 | . 2 | . 1 |  | . 1 |  |  | . 1 | . 3 | . 7 | 1.4 | 4.8 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 949 | 733 | 649 | 475 | 302 | 138 | 55 | 52 | 176 | 440 | 693 | 920 | 5581 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 1 | 1 | 10 | 62 | 194 | 362 | 517 | 514 | 299 | 83 | 6 | 1 | 2049 |

Total Monthly Precipitation (in inches)
Hood River, Oregon


## Dates of Spring and Fall Low Temperatures Hood River, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 28-Jan | 5-Apr | 20-Apr | 4-May | 6-Nov | 29-Oct | 24-Sep | 22-Sep |
| 1962 | 12-Mar | 28-Mar | 5-May | 16-May | 24-Dec | 24-Nov | 5-Oct | 9-Sep |
| 1963 | 13-Mar | 2-Apr | 21-Apr | 16-May | 28-Nov | 28-Nov | 19-Oct | 19-Oct |
| 1964 | 27-Feb | 14-May | 25-May | 28-Jun | 14-Nov | 18-Oct | 3-Oct | 9-Sep |
| 1965 | 19-Mar | 3-Apr | 6-May | 18-May | 14-Dec | 17-Sep | 17-Sep | 16-Sep |
| 1966 | 4-Mar | 19-Apr | 1-Jun | 1-Jun | *** | 18-Oct | 9-Oct | 3-Oct |
| 1967 | 12-Mar | 15-Apr | 26-Apr | 25-May | 13-Dec | 3-Nov | 20-Oct | 15-Oct |
| 1968 | 15-Feb | 13-Apr | 27-Apr | 8-May | 19-Dec | 15-Nov | 2-Oct | 2-Oct |
| 1969 | 12-Mar | 25-Mar | 4-May | 4-May | 14-Oct | 13-Oct | 11-Oct | 15-Sep |
| 1970 | 11-Jan | 19-Mar | 11-May | 14-May | 22-Nov | 7-Oct | 13-Sep | 9-Sep |
| 1971 | 2-Mar | 1-Apr | 22-Apr | 10-May | 17-Oct | 17-Oct | 16-Oct | 18-Sep |
| 1972 | 5-Feb | 22-Apr | 1-May | 25-May | 4-Dec | 30-Oct | 25-Sep | 25-Sep |
| 1973 | 28-Jan | 8 -Apr | 11-May | 27-May | *** | 2-Nov | 3-Oct | 16-Sep |
| 1974 | 8-Mar | 21-Mar | 17-May | 31-May | 23-Dec | 6-Oct | 6-Oct | 27-Sep |
| 1975 | 28-Mar | 8-Apr | 25-May | 25-May | 18-Nov | 16-Nov | 7-Nov | 27-Oct |
| 1976 | 6-Mar | 2-Apr | 3-Jun | 26-Jun | 27-Nov | 18-Oct | 12-Oct | 4-Oct |
| 1977 | 28-Jan | 16-Mar | 12-May | 29-May | 19-Nov | 4-Nov | 4-Oct | 2-Oct |
| 1978 | 12-Feb | 15-Mar | 5-May | 30-May | 26-Oct | 22-Oct | 13-Oct | 18-Sep |
| 1979 | 15-Feb | 18-Mar | 20-Apr | 30-May | 27-Nov | 1-Nov | 1-Nov | 3-Oct |
| 1980 | 16-Feb | 22-Feb | 11-Apr | 3-Jun | $9-\mathrm{Dec}$ | 22-Oct | 9-Oct | 29-Aug |
| 1981 | 12-Feb | 13-Apr | 25-Apr | 12-May | *** | 21-Oct | 12-Oct | 24-Sep |
| 1982 | 11-Feb | 20-Apr | 5-May | 19-May | 15-Nov | 19-Oct | 5-Oct | 13-Sep |
| 1983 | 4-Jan | 13-Apr | 15-Apr | 13-May | 19-Dec | 29-Sep | 20-Sep | 19-Sep |
| 1984 | 21-Jan | 5-Mar | 4-May | 1-Jun | 6-Dec | 5-Dec | 24-Sep | 24-Sep |
| 1985 | 18-Feb | 26-Mar | 12-May | 15-May | 9-Oct | 29-Sep | 29-Sep | 29-Sep |
| 1986 | 10-Feb | 24-Apr | 6-May | 22-May | *** | 10-Nov | 12-Oct | 14-Sep |
| 1987 | 26-Feb | 30-Mar | 20-Apr | 20-May | 17-Nov | 11-Oct | 10-Oct | 17-Sep |
| 1988 | 5-Feb | 17-Mar | 10-Apr | 7-May | 15-Dec | 27-Oct | 27-Oct | 18-Sep |
| 1989 | 2-Mar | 20-Mar | 30-Mar | 28-May | 11-Dec | 29-Oct | 15-Oct | 3-Oct |
| 1990 | 19-Feb | 25-Mar | 27-Mar | 8-May | 19-Dec | 11-Oct | 7-Oct | 6-Oct |

Probabilities

| $10 \%$ | 27-Jan | $15-\mathrm{Mar}$ | 10-Apr | 7-May | 21-Oct | 5-Oct | 23-Sep | 9-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 \%$ | 3-Feb | $18-\mathrm{Mar}$ | 20-Apr | 11-May | 14-Nov | 11-Oct | 28-Sep | 14-Sep |
| Median $(50 \%)$ | 17-Feb | 1-Apr | 4-May | 21-May | 27-Nov | 22-Oct | 8-Oct | 23-Sep |
| $80 \%$ | 8-Mar | 13-Apr | 12-May | 30-May | 15-Dec | 5-Nov | 15-Oct | 3-Oct |
| $90 \%$ | $12-\mathrm{Mar}$ | 20-Apr | 25-May | 1-Jun | 19-Dec | 16-Nov | 20-Oct | 6-Oct |

## Clamath Falls, Oregon

| Latitude: | $44^{\circ} 12^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Longitude: | $121^{\circ} 47{ }^{\prime}$ |  |  |  |  |
| Elevation: | 4100 ft . |  |  |  |  |
| County: | Klamath |  |  |  |  |
| Station Number: | 354506 |  |  |  |  |
| Agency: | Pacific Power and Light |  |  |  |  |
| Station History: | 『aturae\% | \%omgiture | Elevatim | Stary Cate | Enc Date |
|  | $44^{\circ} 38^{\prime}$ | $121^{\circ} 56^{\prime}$ | 4170 | 1/1/1884 | 5/1/1887 |
|  | $44^{\circ} 14^{\prime}$ | $121^{\circ} 40^{\prime}$ | 4169 | 5/2/1887 | 1/31/1889 |
|  | $44^{\circ} 14^{\prime}$ | $121^{\circ} 40^{\prime}$ | 4186 | 3/1/1894 | 11/30/1895 |
|  | $44^{\circ} 14^{\prime}$ | $121^{\circ} 40^{\prime}$ | 4186 | 12/2/1897 | 3/12/06 |
|  | $44^{\circ} 15^{\prime}$ | $121^{\circ} 45^{\prime}$ | 4250 | 3/12/06 | 11/30/08 |
|  | $44^{\circ} 14^{\prime}$ | $121^{\circ} 47^{\prime}$ | 4100 | 12/1/08 | 12/31/26 |
|  | $44^{\circ} 15^{\prime}$ | $121^{\circ} 43^{\prime}$ | 4100 | 1/1/27 | 10/10/30 |
|  | $44^{\circ} 15^{\prime}$ | $121^{\circ} 47^{\prime}$ | 4100 | 11/1/30 | 10/1/47 |
|  | $44^{\circ} 13^{\prime}$ | $121^{\circ} 47^{\prime}$ | 4090 | 10/1/47 | 7/1/48 |
|  | $44^{\circ} 13 '$ | $121^{\circ} 47^{\prime}$ | 4090 | 7/1/48 | 8/1/57 |
|  | $44^{\circ} 12^{\prime}$ | $121^{\circ} 47^{\prime}$ | 4100 | 8/1/57 | present |

Monthly Means and Extremes
Klamath Falls, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 39.2 | 45.2 | 50.6 | 58.3 | 67.6 | 76.5 | 84.9 | 83.8 | 75.9 | 64.1 | 47.4 | 39.2 | 61.1 |
| Minimum | 20.4 | 24.9 | 27.8 | 30.8 | 38.2 | 45.6 | 50.9 | 49.7 | 42.8 | 34.6 | 27.6 | 21.7 | 34.6 |
| Mean | 29.8 | 35.1 | 39.2 | 44.8 | 52.9 | 61.1 | 67.9 | 66.8 | 59.4 | 49.4 | 37.5 | 30.5 | 47.9 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 59 | 67 | 73 | 87 | 98 | 99 | 102 | 104 | 100 | 88 | 74 | 59 | 104 |
| Minimum | -14 | -10 | 4 | 10 | 17 | 24 | 30 | 32 | 20 | 11 | 2 | -17 | -17 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.81 | 1.28 | 1.35 | . 75 | . 86 | . 69 | . 35 | . 62 | . 55 | 1.07 | 1.97 | 2.23 | 13.53 |
| Extreme 24 hr . | 1.82 | . 97 | 1.11 | . 74 | . 83 | . 95 | 1.14 | 1.25 | . 88 | 1.69 | 1.18 | 2.58 | 2.58 |
| Evaporation in inches |  |  | 5.03 | 7.30 | 8.86 | 10.51 | 9.60 | 6.17 | 4.37 |  |  |  | 51.85 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 3 | 1.9 | 7.3 | 6.2 | 1.1 |  |  |  | 16.9 |
| Maximum $32^{\circ}$ or less | 5.3 | . 9 | . 2 |  |  |  |  |  |  |  | . 9 | 5.2 | 12.5 |
| Minimum $32^{\circ}$ or less | 27.5 | 23.2 | 23.2 | 17.8 | 7.2 | 1.0 |  | . 1 | 2.3 | 12.4 | 22.0 | 27.2 | 164.1 |
| Minimum $0^{\circ}$ or less | . 9 | 2 |  |  |  |  |  |  |  |  |  | . 8 | 1.9 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 10.6 | 9.4 | 10.7 | 6.8 | 6.1 | 5.3 | 2.1 | 3.4 | 3.2 | 5.9 | 11.3 | 11.5 | 86.4 |
| . 10 inches or more | 4.9 | 4.0 | 4.1 | 2.5 | 2.7 | 2.3 | . 9 | 1.6 | 1.6 | 2.9 | 6.3 | 6.3 | 40.2 |
| 50 inches or more | 1.1 | . 4 | . 4 | . 2 | . 3 | . 2 | . 2 | . 4 | . 3 | . 4 | . 8 | 1.1 | 5.7 |
| 1.00 inches or more | . 2 |  |  |  |  |  |  | . 1 |  | . 1 | 1 | . 2 | . 7 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1086 | 843 | 798 | 607 | 382 | 165 | 48 | 59 | 189 | 485 | 820 | 1061 | 6541 |
| Growing days © $50^{\circ} \mathrm{F}$ | 0 | 1 | 3 | 33 | 155 | 338 | 550 | 516 | 296 | 81 | 1 | 0 | 1973 |

Total Monthly Precipitation (in inches)
Klamath Falls, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 66 | 1.92 | 1.62 | . 20 | 1.35 | . 45 | . 00 | . 68 | . 86 | 1.76 | 2.11 | 2.54 | 14.15 |
| 1962 | 1.33 | 1.26 | 1.03 | . 23 | . 95 | . 06 | . 07 | . 34 | . 55 | 4.55 | 1.17 | 1.58 | 13.12 |
| 1963 | 1.21 | 1.16 | . 57 | 1.78 | . 85 | 1.37 | . 02 | . 88 | . 04 | 1.25 | 2.11 | . 70 | 11.94 |
| 1964 | 3.83 | . 15 | . 54 | . 25 | . 72 | 1.68 | . 34 | . 19 | . 12 | . 23 | 2.30 | 8.93 | 19.28 |
| 1965 | 2.23 | . 08 | . 08 | 1.62 | . 36 | 1.12 | . 00 | 2.49 | . 00 | . 05 | 2.69 | 1.29 | 12.01 |
| 1966 | 1.15 | . 29 | . 82 | . 48 | . 38 | . 92 | . 47 | 1.37 | . 17 | . 24 | 3.08 | 3.07 | 12.44 |
| 1967 | 2.32 | . 13 | 1.58 | 1.44 | 1.35 | 1.03 | . 00 | . 00 | . 04 | . 83 | . 53 | 1.12 | 10.37 |
| 1968 | . 97 | 1.44 | . 55 | . 17 | . 73 | . 40 | . 04 | 1.71 | . 09 | . 84 | 2.42 | 1.64 | 11.00 |
| 1969 | 4.12 | 1.08 | . 32 | . 45 | . 85 | 1.46 | . 09 | . 00 | . 41 | 2.06 | . 40 | 4.69 | 15.93 |
| 1970 | 4.85 | . 70 | 1.21 | . 29 | . 38 | . 20 | . 14 | . 00 | . 00 | 1.66 | 3.96 | 1.46 | 14.85 |
| 1971 | 1.81 | . 94 | 2.87 | . 50 | 3.46 | . 79 | . 02 | . 18 | . 88 | . 75 | 1.94 | 1.65 | 15.79 |
| 1972 | 3.67 | 1.30 | 2.90 | . 62 | . 43 | . 55 | . 00 | . 10 | . 33 | 1.52 | . 94 | 1.81 | 14.17 |
| 1973 | 1.17 | . 99 | . 94 | . 16 | . 47 | . 01 | . 20 | . 05 | . 51 | 1.82 | 3.92 | 2.19 | 12.43 |
| 1974 | 1.44 | 1.05 | 2.21 | . 92 | . 13 | . 06 | . 60 | . 26 | . 00 | . 53 | . 70 | 1.88 | 9.78 |
| 1975 | 2.14 | 2.83 | 2.06 | . 65 | . 14 | . 96 | . 88 | . 44 | . 37 | 1.70 | . 80 | 1.05 | 14.02 |
| 1976 | . 94 | 2.00 | . 57 | . 11 | . 23 | . 28 | . 31 | 2.73 | . 18 | . 14 | . 22 | . 22 | 7.93 |
| 1977 | . 85 | . 43 | . 45 | . 09 | 2.01 | 1.59 | . 07 | . 17 | 2.13 | . 41 | 2.39 | 3.38 | 13.97 |
| 1978 | 1.21 | . 64 | 2.76 | 1.71 | . 22 | . 62 | . 12 | . 52 | . 45 | . 00 | . 50 | . 57 | 9.32 |
| 1979 | 2.45 | 1.33 | . 80 | 1.39 | 1.50 | . 25 | . 21 | 1.04 | . 23 | 2.94 | 3.41 | 1.29 | 16.84 |
| 1980 | 2.50 | 2.03 | . 69 | . 61 | . 84 | . 78 | . 03 | . 00 | . 59 | . 50 | 1.04 | 1.80 | 11.41 |
| 1981 | . 77 | 1.93 | 1.12 | 1.02 | 1.11 | . 18 | . 01 | . 00 | . 42 | 1.26 | 4.25 | 5.87 | 17.94 |
| 1982 | . 98 | 2.35 | 1.84 | . 65 | . 25 | 1.54 | . 65 | . 63 | . 00 | 1.34 | 1.71 | 3.15 | 15.09 |
| 1983 | 1.07 | 2.50 | 2.78 | 1.44 | . 56 | . 36 | . 51 | . 73 | . 52 | . 78 | 3.66 | 5.81 | 20.72 |
| 1984 | . 23 | 1.51 | 1.25 | 1.10 | . 51 | . 74 | . 40 | 1.56 | . 50 | 1.94 | 3.69 | 1.30 | 14.73 |
| 1985 | . 14 | 1.20 | . 95 | . 29 | 39 | . 68 | . 95 | . 08 | 2.36 | . 87 | 1.61 | . 74 | 10.26 |
| 1986 | 1.87 | 4.66 | 1.48 | . 18 | . 89 | . 69 | . 11 | . 00 | 2.45 | . 50 | . 94 | . 62 | 14.39 |
| 1987 | 1.50 | . 58 | 1.69 | . 16 | . 35 | . 56 | 2.41 | . 04 | . 00 | . 06 | . 85 | 4.02 | 12.22 |
| 1988 | 2.35 | . 13 | . 51 | . 98 | 1.17 | 1.02 | . 00 | . 01 | . 11 | . 00 | 4.23 | 1.23 | 11.74 |
| 1989 | 1.61 | . 54 | 3.02 | 1.66 | . 90 | . 21 | . 00 | . 44 | 1.44 | 1.10 | . 82 | . 43 | 12.17 |
| 1990 | 2.93 | 1.14 | 1.26 | 1.37 | 2.17 | . 22 | 1.44 | 1.90 | . 21 | . 32 | . 72 | . 80 | 14.48 |
| Mean | 1.81 | 1.28 | 1.35 | . 75 | . 85 | . 69 | . 35 | . 62 | . 55 | 1.07 | 1.97 | 2.23 | 13.47 |
| Maximum | 4.85 | 4.66 | 3.02 | 1.78 | 3.46 | 1.68 | 2.41 | 2.73 | 2.45 | 4.55 | 4.25 | 8.93 | 20.72 |
| Minimum | . 14 | . 08 | . 08 | . 09 | . 13 | . 01 | . 00 | . 00 | . 00 | . 00 | . 22 | . 22 | 7.93 |
| StdDev | 1.15 | . 98 | . 86 | . 57 | . 72 | . 49 | . 53 | . 77 | . 69 | . 99 | 1.30 | 1.96 | 2.98 |

> Dates of Spring and Fall Low Temperatures Klamath Falls, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 7-May | 13-May | 27-May | 6-Jul | 29-Sep | 29-Sep | 21-Sep | 11-Sep |
| 1962 | 4-Jun | 4-Jun | 13-Jun | 27-Jun | 6-Nov | 5-Oct | 29-Sep | 12-Sep |
| 1963 | 14-May | 14-May | 29-Jun | 8 -Jul | 31-Oct | 27-Oct | 7-Oct | 20-Aug |
| 1964 | 4-May | 22-May | 19-Jun | 21-Jun | 23-Oct | 16-Oct | 2-Sep | 19-Aug |
| 1965 | 5-May | 20-May | 27-Jun | 27-Jun | 16-Oct | 17-Sep | 17-Sep | 9-Sep |
| 1966 | 29-Apr | 4-Jun | 27-Jun | 3-Jul | 14-Oct | 12-Sep | 12-Sep | 12-Sep |
| 1967 | 1-May | 12-May | 2-Jun | 8-Jun | 14-Oct | 6 -Oct | 3-Oct | 12-Sep |
| 1968 | 6-May | 7-May | 7-Jun | 29-Jun | 9-Oct | 21-Sep | 20-Sep | 15-Aug |
| 1969 | 29-Apr | 30-Apr | 20-May | 29-Jun | 6-Oct | 3-Oct | 3-Oct | 5-Aug |
| 1970 | 12-May | 12-May | 28-May | 30-Jun | 13-Sep | 13-Sep | 13-Sep | 5-Sep |
| 1971 | 21-Apr | 20-May | 20-May | 10-Jul | 1-Oct | 24-Sep | 18-Sep | 3-Sep |
| 1972 | 29-Apr | 30-Apr | 11-Jun | 24-Jun | 27-Oct | 20-Sep | 15-Aug | 14-Aug |
| 1973 | 19-Apr | 10-May | 18-Jun | 22-Jul | 24-Sep | 6-Sep | 1-Sep | 1-Sep |
| 1974 | 16-May | 7-Jun | 7-Jun | 2-Jul | 21-Oct | 6-Oct | 3-Oct | 20-Aug |
| 1975 | 6-May | 25-May | 25-Jun | 30-Jul | 23-Oct | 14-Oct | 31-Aug | 31-Aug |
| 1976 | 23-Apr | 28-May | 1-Jul | 1-Jul | 27-Oct | 17-Oct | 7-Sep | 26-Aug |
| 1977 | 14-Apr | 28-May | 28-May | 2-Jun | 9-Nov | 21-Oct | 30-Sep | 21-Sep |
| 1978 | 15-Mar | 24-May | 25-May | 25-Jun | 8-Nov | 22-Oct | 19-Sep | 17-Aug |
| 1979 | 19-Apr | 10-May | 7-Jun | 2-Jul | 29-Oct | 21-Oct | 20-Oct | 16-Oct |
| 1980 | 31-Mar | 24-May | 25-May | 27-Jun | 22-Oct | 17-Oct | 21-Sep | 19-Sep |
| 1981 | 10-Apr | 7-May | 16-May | 17-Jun | 25-Nov | 4-Oct | 22-Sep | 21-Sep |
| 1982 | 29-Apr | 10-May | 6-Jun | 6-Jun | 18-Oct | 1-Oct | 1-Oct | 1-Oct |
| 1983 | 9-May | 9-May | 11-May | 3-Jul | 8-Nov | 15-Oct | 9-Sep | 9-Sep |
| 1984 | 16-May | 16-May | 8-Jun | 21-Jun | 18-Oct | 24-Sep | 23-Sep | 12-Sep |
| 1985 | 24-Apr | 4-May | 30-May | 24-Jun | 9-Oct | 9-Oct | 8-Oct | 10-Sep |
| 1986 | 22-May | 22-May | 22-May | 5-Jul | 11-Nov | 12-Oct | 21-Sep | 9-Sep |
| 1987 | 19-Apr | 1-Jun | 1-Jun | 16-Jul | 15-Nov | 10-Nov | 16-Aug | 15-Aug |
| 1988 | 23-Apr | 29-May | 29-Jun | 29-Jun | 9-Nov | 9-Nov | 17-Sep | 13-Sep |
| 1989 | 26-Mar | 19-May | 29-May | 30-May | 28-Oct | 4-Oct | 1-Aug | 1-Aug |
| 1990 | 13-Mar | 1-Jun | 11-Jun | 11-Jun | 19-Oct | 6-Oct | 6 -Oct | 6-Oct |

Probabilities

| 10 | 30-Mar | 6-May | 20-May | 7-Jun | 30-Sep | 16-Sep | 29-Aug | 14-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 18-Apr | 9-May | 25-May | 20-Jun | 9-Oct | 23-Sep | 6-Sep | 18-Aug |
| Median (50\%) | 29-Apr | 19-May | 6-Jun | 29-Jun | 22-Oct | 6-Oct | 20-Sep | 9-Sep |
| 80 | 9-May | 28-May | 20-Jun | 5-Jul | 8-Nov | 17-Oct | 3-Oct | 14-Sep |
| 90 | 16-May | 1-Jun | 27-Jun | 10-Jul | 9-Nov | 22-Oct | 6-Oct | 22-Sep |

## Lakeview, Oregon

| Latitude: | $42^{\circ} 13^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Longitude: | $120^{\circ} 22^{\prime}$ |  |  |  |  |
| Elevation: | 4780 ft . |  |  |  |  |
| County: | Lake |  |  |  |  |
| Station Number: | 354670 |  |  |  |  |
| Agency: | Radio Station KQIK |  |  |  |  |
| Station History: | Yatiunc | \%raginale | 年lieration | Starmisutel | Erad.iate |
|  | $42^{\circ} 12^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4800 | 1/1/1884 | 1/31/12 |
|  | $42^{\circ} 15^{\prime}$ | $120^{\circ} 23^{\prime}$ | 4950 | 11/3/12 | 6/30/31 |
|  | $42^{\circ} 12^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4746 | 7/1/31 | 3/31/43 |
|  | $42^{\circ} 12^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4756 | 4/1/43 | 8/20/44 |
|  | $42^{\circ} 11^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4756 | 8/22/44 | 7/1/48 |
|  | $42^{\circ} 11^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4770 | 7/1/48 | 9/1/51 |
|  | $42^{\circ} 11^{\prime}$ | $120^{\circ} 21^{\prime}$ | 4770 | 1/1/51 | 11/1/76 |
|  | $42^{\circ} 13^{\prime}$ | $120^{\circ} 22^{\prime}$ | 4780 | 1/1/76 | present |

Monthly Means and Extremes
Lakeview, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 38.1 | 42.1 | 47.6 | 55.7 | 65.1 | 73.9 | 83.7 | 82.1 | 74.0 | 62.7 | 46.7 | 39.4 | 59.2 |
| Minimum | 19.2 | 23.1 | 26.4 | 30.6 | 37.3 | 44.4 | 50.3 | 48.4 | 41.3 | 33.2 | 26.6 | 20.9 | 33.5 |
| Mean | 28.9 | 33.2 | 36.9 | 42.6 | 51.5 | 59.2 | 66.8 | 65.2 | 57.6 | 47.8 | 36.5 | 30.2 | 46.4 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 59 | 69 | 74 | 87 | 96 | 101 | 100 | 101 | 98 | 87 | 73 | 62 | 101 |
| Minimum | 15 | -9 | -4 | 14 | 17 | 26 | 30 | 31 | 20 | 9 | -1 | -20 | -20 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 2.02 | 1.43 | 1.51 | 1.22 | 1.43 | 1.15 | . 35 | . 54 | . 63 | 1.20 | 2.07 | 2.09 | 15.64 |
| Extreme 24 hr . | 1.78 | 1.08 | 1.22 | 1.15 | 1.12 | 1.21 | . 79 | 1.00 | 1.17 | 2.10 | 2.02 | 2.27 | 2.27 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 1 | 1.0 | 5.4 | 4.1 | . 6 |  |  |  | 11.2 |
| Maximum $32^{\circ}$ or less | 7.1 | 2.7 | 1.0 |  |  |  |  |  |  | . 1 | 1.2 | 6.4 | 18.6 |
| Minimum $32^{\circ}$ or less | 27.9 | 24.5 | 25.5 | 19.0 | 8.3 | 1.5 | . 1 | . 1 | 3.3 | 14.4 | 23.1 | 27.9 | 175.5 |
| Minimum $0^{\circ}$ or less | 1.8 | 1.0 | . 1 |  |  |  |  |  |  |  | . 1 | 1.4 | 4.4 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 10.9 | 9.8 | 10.6 | 9.0 | 7.8 | 5.9 | 2.6 | 3.1 | 4.0 | 6.3 | 11.4 | 11.5 | 92.9 |
| . 10 inches or more | 5.3 | 4.9 | 5.1 | 3.8 | 4.5 | 3.3 | 1.1 | 1.5 | 1.9 | 3.5 | 6.5 | 6.5 | 48.0 |
| . 50 inches or more | 1.0 | . 5 | . 5 | . 4 | . 6 | . 5 | . 2 | . 3 | . 2 | . 4 | . 8 | . 8 | 6.1 |
| 1.00 inches or more | 2 | . 1 |  | . 1 | . 1 | . 1 |  | . 1 |  | . 1 | . 1 | . 1 | . 9 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1126 | 908 | 866 | 656 | 432 | 204 | 52 | 79 | 237 | 515 | 855 | 1076 | 7006 |
| Growing days © $50^{\circ} \mathrm{F}$ | 0 | 0 | 1 | 24 | 120 | 291 | 526 | 472 | 253 | 70 | 1 | 0 | 1757 |

Total Monthly Precipitation (in inches)
Lakeview, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 83 | 1.34 | 1.40 | . 43 | 1.38 | 1.01 | . 01 | 1.32 | . 41 | 1.54 | 1.20 | 2.34 | 13.21 |
| 1962 | 1.49 | 1.79 | 1.71 | . 60 | 2.59 | . 05 | . 00 | . 29 | . 53 | 6.62 | 1.81 | 1.42 | 18.90 |
| 1963 | 1.84 | 1.90 | 1.30 | 2.95 | 3.42 | 1.98 | . 24 | . 23 | . 15 | 1.23 | 2.67 | . 94 | 18.85 |
| 1964 | 3.97 | . 11 | . 82 | . 76 | 1.35 | 4.23 | . 24 | . 41 | . 39 | . 45 | 2.06 | 8.96 | 23.75 |
| 1965 | 2.81 | 32 | . 26 | 1.38 | 1.10 | 3.56 | . 16 | . 87 | . 05 | . 04 | 2.79 | . 89 | 14.23 |
| 1966 | 1.80 | . 82 | . 99 | . 73 | 1.14 | 1.09 | . 11 | . 20 | . 45 | . 17 | 3.63 | 1.78 | 12.91 |
| 1967 | 3.47 | . 37 | 1.78 | 2.28 | 1.27 | . 67 | . 01 | . 13 | . 22 | . 73 | 1.32 | 1.41 | 13.66 |
| 1968 | 1.86 | 2.53 | . 71 | . 19 | 2.11 | 1.46 | . 00 | 2.65 | . 06 | . 89 | 3.08 | 1.80 | 17.34 |
| 1969 | 5.61 | 1.33 | . 72 | . 89 | . 34 | 3.31 | . 01 | . 00 | . 09 | 2.51 | . 99 | 3.86 | 19.66 |
| 1970 | 5.81 | 1.09 | 1.21 | . 78 | . 93 | 2.43 | . 00 | . 00 | . 19 | . 97 | 4.59 | 2.53 | 20.53 |
| 1971 | 1.46 | . 59 | 3.84 | 1.63 | 4.12 | 1.85 | . 21 | . 09 | 1.98 | 1.07 | 1.61 | 1.52 | 19.97 |
| 1972 | 2.98 | 2.60 | 1.70 | 1.20 | . 59 | . 16 | . 22 | . 05 | 1.27 | 1.52 | 2.35 | 2.34 | 16.98 |
| 1973 | 1.38 | 1.15 | 1.84 | . 87 | . 88 | . 02 | . 18 | . 33 | 1.47 | 1.46 | 3.59 | 2.15 | 15.32 |
| 1974 | 1.90 | 1.23 | 2.79 | . 81 | . 99 | . 16 | . 91 | . 11 | . 00 | . 79 | . 35 | 2.61 | 12.65 |
| 1975 | 1.13 | 3.15 | 1.94 | 2.46 | . 59 | 1.04 | 1.37 | . 32 | . 14 | 2.52 | . 58 | 1.61 | 16.85 |
| 1976 | 1.05 | 2.27 | . 37 | . 74 | . 32 | 1.02 | 1.39 | 3.04 | . 25 | . 48 | . 18 | . 01 | 11.12 |
| 1977 | . 72 | . 19 | . 49 | . 29 | 2.26 | . 48 | . 10 | . 77 | 1.01 | . 45 | 1.90 | 3.01 | 11.67 |
| 1978 | 1.69 | . 63 | 1.79 | 2.96 | . 65 | 1.25 | . 89 | . 21 | . 81 | . 00 | . 69 | . 83 | 12.40 |
| 1979 | 3.04 | 1.92 | . 85 | 1.23 | . 73 | . 38 | . 00 | 1.33 | . 11 | 2.02 | 2.96 | 1.42 | 15.99 |
| 1980 | 3.61 | 2.54 | 31 | . 71 | 1.35 | . 87 | . 08 | . 00 | . 61 | 1.54 | . 53 | 1.79 | 13.94 |
| 1981 | 1.55 | 1.13 | 2.11 | 1.12 | 1.86 | . 73 | . 16 | . 00 | . 55 | 2.07 | 4.49 | 6.31 | 22.08 |
| 1982 | . 78 | 1.47 | 1.78 | . 52 | 1.01 | 1.22 | . 94 | . 22 | . 80 | 1.71 | 2.24 | 2.27 | 14.96 |
| 1983 | 1.00 | 2.12 | 2.76 | 1.88 | 1.82 | . 49 | . 34 | 1.19 | . 56 | . 93 | 2.94 | 4.08 | 20.11 |
| 1984 | . 20 | 1.31 | 1.19 | 1.16 | . 82 | 1.42 | . 77 | 1.05 | . 45 | 1.98 | 2.65 | . 62 | 13.62 |
| 1985 | . 67 | 1.22 | 1.26 | . 36 | . 91 | . 13 | . 28 | . 00 | 1.99 | . 23 | 4.12 | . 10 | 11.27 |
| 1986 | 1.07 | 4.71 | 2.08 | . 51 | 2.80 | . 43 | . 05 | . 00 | 2.73 | . 61 | . 81 | . 90 | 16.70 |
| 1987 | 2.04 | 1.28 | 2.30 | 1.54 | 1.69 | 2.37 | 1.18 | . 10 | . 00 | . 00 | . 83 | M | 13.33 |
| 1988 | 1.77 | . 24 | . 37 | 3.38 | . 93 | . 54 | . 08 | . 00 | . 38 | . 00 | 4.04 | 1.33 | 13.06 |
| 1989 | 1.38 | . 70 | 3.12 | . 59 | 1.08 | . 14 | . 00 | . 61 | . 95 | . 79 | . 67 | . 39 | 10.42 |
| 1990 | 1.70 | . 71 | 1.53 | 1.57 | 1.96 | . 10 | . 70 | . 68 | . 31 | . 57 | . 37 | 1.26 | 11.46 |
| Mean | 2.02 | 1.43 | 1.51 | 1.22 | 1.43 | 1.15 | . 35 | . 54 | . 63 | 1.20 | 2.07 | 2.09 | 15.56 |
| Maximum | 5.81 | 4.71 | 3.84 | 3.38 | 4.12 | 4.23 | 1.39 | 3.04 | 2.73 | 6.62 | 4.59 | 8.96 | 23.75 |
| Minimum | . 20 | . 11 | . 26 | . 19 | . 32 | . 02 | . 00 | . 00 | . 00 | . 00 | . 18 | . 01 | 10.42 |
| StdDev | 1.36 | 1.01 | . 88 | . 85 | . 90 | 1.10 | . 44 | . 75 | . 67 | 1.26 | 1.35 | 1.85 | 3.58 |

## Dates of Spring and Fall Low Temperatures Lakeview, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 22-Apr | 5-May | 16-May | 30-May | 29-Sep | 29-Sep | 21-Sep | 2-Sep |
| 1962 | 29-Apr | 20-May | 5-Jun | 5-Jun | 7-Nov | 5-Oct | 3-Oct | 28-Aug |
| 1963 | 21-Apr | 27-Apr | 12-May | 29-Jun | 31-Oct | 12-Oct | 7-Oct | 25-Aug |
| 1964 | 6-May | 7-May | 19-Jun | 27-Jun | 24-Oct | 10-Oct | 29-Aug | 27-Aug |
| 1965 | 6-May | 6-May | 23-May | 27-Jun | 17-Sep | 17-Sep | 17-Sep | 4-Sep |
| 1966 | 20-Apr | 4-Jun | 4-Jun | 3-Jul | 14-Oct | 14-Oct | 12-Oct | 12-Sep |
| 1967 | 30-Apr | 12-May | 2-Jun | 3-Jun | 12-Oct | 6-Oct | 4-Oct | 12-Sep |
| 1968 | 6-May | 6-May | 29-Jun | 29-Jun | 9-Oct | 21-Sep | 15-Aug | 15-Aug |
| 1969 | 13-Apr | 30-Apr | 4-May | 26-Jun | 19-Oct | 4-Oct | 21-Sep | 4-Sep |
| 1970 | 29-Apr | 12-May | 12-May | 30-Jun | 14-Sep | 13-Sep | 13-Sep | 5-Sep |
| 1971 | 31-May | 31-May | 31-May | 10-Jul | 18-Oct | 2-Oct | 18-Sep | 8-Sep |
| 1972 | 29-Apr | 30-Apr | 18-May | 24-Jun | 27-Oct | 25-Oct | 11-Sep | 17-Aug |
| 1973 | 18-Apr | 21-Apr | 18-Jun | 18-Jun | 29-Oct | 4-Oct | 21-Sep | 24-Aug |
| 1974 | 18-May | 20-May | 20-May | 26-Jun | 21-Oct | 21-Oct | 28-Sep | 20-Aug |
| 1975 | 5-May | 25-May | 25-May | 1-Jul | 23-Oct | 8-Oct | 7-Oct | 24-Aug |
| 1976 | 26-Apr | 11-May | 1-Jul | 1-Jul | 3-Oct | 3-Oct | 16-Sep | 8-Aug |
| 1977 | 15-Apr | 18-May | 28-May | 30-May | 3-Nov | 30-Sep | 21-Sep | 31-Aug |
| 1978 | 4-May | 11-Jun | 25-Jun | 25-Jun | 20-Sep | 17-Sep | 8-Sep | 17-Aug |
| 1979 | 19-Apr | 10-May | 17-Jun | 19-Jun | 1-Nov | 21-Oct | 20-Oct | 23-Sep |
| 1980 | 15-Apr | 24-May | 27-Jun | 10-Jul | 17-Oct | 17-Oct | 30-Aug | 27-Aug |
| 1981 | 7-Apr | 14-Jun | 7-Jul | 13-Jul | 5-Oct | 5-Oct | 20-Sep | 20-Sep |
| 1982 | 21-Apr | 5-May | 6-Jun | 4-Jul | 1-Oct | 26-Sep | 11-Sep | 2-Aug |
| 1983 | 9-May | 9-May | 19-Jun | 20-Jul | 14-Oct | 3-Oct | 9-Sep | 9-Sep |
| 1984 | 28-Apr | 16-May | 21-Jun | 22-Jun | 23-Sep | 23-Sep | 21-Sep | 21-Sep |
| 1985 | 4-May | 2-Jun | 2-Jun | 30-Jun | 9-Oct | 8-Oct | 17-Sep | 2-Aug |
| 1986 | 22-May | 22-May | 22-May | 5-Jul | 12-Oct | 23-Sep | 9-Sep | 9-Sep |
| 1987 | 19-Apr | 1-Jun | 1-Jun | 17-Jul | 14-Oct | 14-Oct | 14-Oct | 16-Aug |
| 1988 | 1-May | 29-Jun | 29-Jun | 29-Jun | 9-Nov | 18-Sep | 18-Sep | 12-Sep |
| 1989 | 19-May | 29-May | 29-May | 2 -Jul | 4-Oct | 4-Oct | 3-Oct | 24-Aug |
| 1990 | 13-May | 25-May | 15-Jun | 16-Jun | 11-Oct | 6-Oct | 3-Oct | 15-Sep |

Probabilities

| 10 | 15-Apr | 30-Apr | 15-May | 4-Jun | 22-Sep | 17-Sep | 7-Sep | 14-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 19-Apr | 5-May | 21-May | 18-Jun | 2-Oct | 23-Sep | 10-Sep | 17-Aug |
| Median (50\%) | 29-Apr | 17-May | 3-Jun | 29-Jun | 14-Oct | 4-Oct | 20-Sep | 29-Aug |
| 80 | 6-May | 31-May | 21-Jun | 4-Jul | 27-Oct | 12-Oct | 3-Oct | 12-Sep |
| 90 | 18-May | 4-Jun | 29-Jun | 10-Jul | 1-Nov | 17-Oct | 7-Oct | 15-Sep |

## Madras, Oregon

Latitude: $\quad 44^{\circ} 38^{\prime}$

Longitude: $\quad 121^{\circ} 08^{\prime}$

Elevation: $\quad 2230 \mathrm{ft}$.
County: Jefferson

Station Number: 355139

Agency: City of Madras

Station History:

| Eatimae | Worgince | Elewatiom: | Star:Wrie | Enderate |
| :---: | :---: | :---: | :---: | :---: |
| $44^{\circ} 42{ }^{\prime}$ | $121^{\circ} 07^{\prime}$ | 2250 | 2/13/09 | 12/31/09 |
| $44^{\circ} 42$ | $121^{\circ} 07^{\prime}$ | 2250 | 7/23/10 | 2/28/11 |
| $44^{\circ} 39^{\prime}$ | $121^{\circ} 09^{\prime}$ | 2250 | 1/6/20 | 7/1/48 |
| $44^{\circ} 38{ }^{\prime}$ | $121^{\circ} 08^{\prime}$ | 2300 | 7/1/48 | 4/1/53 |
| $44^{\circ} 38^{\prime}$ | $121^{\circ} 08^{\prime}$ | 2260 | 4/1/53 | 10/1/59 |
| $44^{\circ} 38^{\prime}$ | $121^{\circ} 08^{\prime}$ | 2240 | 10/1/59 | 11/1/66 |
| $44^{\circ} 38{ }^{\prime}$ | $121^{\circ} 08^{\prime}$ | 2230 | 11/1/66 | present |

## Monthly Means and Extremes

Madras, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 42.8 | 49.5 | 55.9 | 62.3 | 70.8 | 79.4 | 87.1 | 86.6 | 78.0 | 66.0 | 50.7 | 42.9 | 64.3 |
| Minimum | 23.3 | 26.3 | 28.1 | 31.1 | 36.7 | 43.2 | 46.4 | 45.8 | 39.2 | 32.2 | 28.8 | 23.8 | 33.8 |
| Mean | 33.1 | 37.8 | 41.8 | 46.7 | 53.7 | 61.2 | 66.8 | 66.3 | 58.7 | 49.2 | 39.8 | 33.3 | 49.0 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 66 | 74 | 82 | 88 | 101 | 102 | 104 | 106 | 101 | 89 | 75 | 68 | 106 |
| Minimum | -31 | -18 | 6 | 11 | 16 | 26 | 31 | 29 | 20 | 9 | -13 | -29 | -31 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.33 | . 88 | . 84 | . 71 | . 79 | . 78 | . 44 | . 54 | . 54 | . 70 | 1.52 | 1.44 | 10.51 |
| Extreme 24 hr . | 1.29 | 1.13 | . 62 | 1.12 | 1.13 | 2.14 | 1.60 | . 91 | . 86 | . 79 | 1.80 | 1.45 | 2.14 |
| Evaporation in inches |  |  |  | 5.26 | 7.25 | 8.70 | 10.17 | 9.06 | 6.15 | 3.29 | 1.80 |  | 51.67 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 8 | 4.5 | 11.9 | 11.0 | 2.1 |  |  |  | 30.1 |
| Maximum $32^{\circ}$ or less | 5.1 | 1.2 |  |  |  |  |  |  |  |  | 1.0 | 4.3 | 11.7 |
| Minimum $32^{\circ}$ or less | 23.7 | 20.6 | 20.8 | 16.6 | 9.7 | 1.4 | . 2 | . 3 | 5.5 | 16.1 | 19.0 | 24.3 | 158.2 |
| Minimum $0^{\circ}$ or less | 1.6 | . 5 |  |  |  |  |  |  |  |  | . 3 | 1.0 | 3.4 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 8.1 | 7.5 | 7.1 | 5.6 | 5.2 | 4.5 | 2.6 | 3.0 | 3.7 | 5.1 | 8.9 | 9.1 | 70.5 |
| . 10 inches or more | 4.2 | 2.8 | 3.0 | 2.2 | 2.6 | 2.2 | 1.2 | 1.7 | 1.5 | 2.3 | 4.1 | 4.4 | 32.3 |
| . 50 inches or more | . 5 | . 3 | . 1 | . 1 | . 2 | . 3 | . 2 | . 3 | . 2 | . 1 | . 6 | . 7 | 3.7 |
| 1.00 inches or more |  | . 1 |  | . 1 |  | . 1 | 1 |  |  |  | . 1 | 1 | . 5 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 988 | 759 | 708 | 527 | 354 | 152 | 52 | 56 | 213 | 496 | 752 | 958 | 6015 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 1 | 3 | 11 | 52 | 154 | 340 | 514 | 500 | 265 | 68 | 7 | 2 | 1917 |

Total Monthly Precipitation (in inches)
Madras, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 67 | 2.68 | 1.64 | . 52 | 1.16 | . 79 | . 05 | . 33 | . 00 | . 49 | 3.01 | 1.53 | 12.87 |
| 1962 | . 62 | 1.32 | 1.08 | . 33 | 2.37 | . 41 | . 00 | . 85 | . 26 | 1.82 | 1.16 | 1.41 | 11.63 |
| 1963 | 1.30 | . 74 | . 90 | 1.88 | . 86 | . 68 | . 20 | . 12 | 1.22 | . 48 | 1.95 | . 98 | 11.31 |
| 1964 | 1.23 | . 02 | . 17 | . 11 | . 04 | 1.18 | . 06 | . 10 | . 15 | . 39 | 1.36 | 5.05 | 9.86 |
| 1965 | 1.46 | . 15 | . 09 | 1.25 | . 17 | 1.55 | 1.19 | . 81 | . 17 | . 23 | 2.34 | . 16 | 9.57 |
| 1966 | 1.54 | . 28 | . 37 | . 00 | . 06 | 1.03 | 2.40 | . 00 | . 98 | . 49 | 2.31 | 2.12 | 11.58 |
| 1967 | 1.27 | . 12 | . 40 | 1.48 | . 28 | . 68 | . 00 | . 00 | . 32 | . 59 | . 41 | . 34 | 5.89 |
| 1968 | 1.02 | 1.02 | . 21 | . 14 | 1.20 | . 38 | . 15 | 1.53 | . 54 | . 80 | 1.89 | 2.11 | 10.99 |
| 1969 | 2.75 | . 65 | . 71 | . 28 | 1.08 | 4.56 | . 00 | . 00 | . 67 | . 96 | . 27 | 1.61 | 13.54 |
| 1970 | 3.36 | . 38 | . 66 | . 16 | . 13 | 1.21 | . 00 | . 00 | . 27 | . 56 | 1.92 | . 64 | 9.29 |
| 1971 | 1.51 | . 47 | . 98 | . 30 | 1.42 | . 53 | . 21 | . 26 | 1.07 | . 56 | 1.00 | . 74 | 9.05 |
| 1972 | 1.01 | . 39 | 1.25 | . 42 | . 87 | 1.18 | . 00 | . 47 | . 31 | . 47 | . 32 | 2.28 | 8.97 |
| 1973 | . 63 | . 83 | . 28 | . 21 | . 46 | . 00 | . 24 | . 16 | 1.94 | . 98 | 3.23 | 2.02 | 10.98 |
| 1974 | . 80 | . 60 | 1.64 | 1.09 | . 07 | . 03 | . 38 | . 00 | . 00 | . 34 | . 41 | 1.04 | 6.40 |
| 1975 | 1.37 | 1.69 | 1.44 | . 44 | . 64 | 1.04 | . 16 | 1.05 | . 00 | . 98 | . 69 | 1.17 | 10.67 |
| 1976 | . 73 | . 83 | . 40 | 1.89 | . 46 | . 27 | . 34 | 1.96 | . 32 | . 23 | . 53 | . 05 | 8.01 |
| 1977 | . 20 | . 34 | . 04 | . 03 | 1.56 | . 17 | . 03 | . 61 | . 85 | . 42 | 2.77 | 2.04 | 9.06 |
| 1978 | 2.41 | . 57 | . 87 | 2.23 | . 43 | . 86 | . 38 | 1.04 | . 37 | . 00 | 1.04 | . 31 | 10.51 |
| 1979 | 1.95 | . 82 | 1.10 | . 67 | . 27 | . 20 | . 00 | 1.64 | . 29 | 2.21 | 1.82 | . 35 | 11.32 |
| 1980 | 2.22 | 2.13 | . 44 | . 82 | 1.52 | 1.06 | . 15 | . 05 | . 55 | . 99 | 1.20 | 2.07 | 13.20 |
| 1981 | 1.62 | . 81 | . 93 | . 22 | 1.44 | . 67 | . 48 | . 00 | 1.29 | . 53 | 2.62 | 4.29 | 14.90 |
| 1982 | . 74 | . 81 | . 50 | . 60 | . 27 | 1.07 | . 85 | . 93 | 1.87 | 2.09 | . 45 | 1.23 | 11.41 |
| 1983 | 1.46 | 2.43 | 2.24 | 1.02 | . 95 | . 59 | 1.63 | 1.86 | . 45 | 1.06 | 1.66 | 2.69 | 18.04 |
| 1984 | . 27 | 1.35 | 1.87 | . 99 | . 47 | 1.10 | . 05 | . 18 | . 17 | 1.27 | 4.29 | . 28 | 12.29 |
| 1985 | . 14 | . 69 | . 19 | . 49 | . 95 | . 30 | . 17 | . 03 | . 57 | . 52 | 1.14 | 1.24 | 6.43 |
| 1986 | 2.11 | 3.09 | . 55 | . 11 | .31 | . 11 | . 62 | . 03 | 1.15 | . 45 | 1.25 | . 76 | 10.54 |
| 1987 | 1.42 | . 49 | 1.16 | . 16 | 1.12 | . 38 | 2.70 | . 17 | . 03 | . 06 | . 60 | 2.54 | 10.83 |
| 1988 | 1.34 | . 07 | . 56 | 1.46 | M | 1.21 | . 00 | . 00 | . 27 | . 00 | 2.34 | . 28 | M |
| 1989 | 1.46 | . 62 | 2.03 | 1.63 | . 69 | . 12 | . 17 | . 94 | . 09 | M | M | M | M |
| 1990 | M | . 04 | . 50 | . 41 | 1.75 | . 14 | . 56 | 1.20 | . 00 | . 27 | . 21 | . 41 | M |
| Mean | 1.33 | . 88 | . 84 | . 71 | . 79 | . 78 | . 44 | . 54 | . 54 | . 70 | 1.52 | 1.44 | 10.71 |
| Maximum | 3.36 | 3.09 | 2.24 | 2.23 | 2.37 | 4.56 | 2.70 | 1.96 | 1.94 | 2.21 | 4.29 | 5.05 | 18.04 |
| Minimum | . 14 | . 02 | . 04 | . 00 | . 04 | . 00 | . 00 | . 00 | . 00 | . 00 | . 21 | . 05 | 5.89 |
| StdDev | . 75 | . 79 | . 60 | . 63 | . 59 | . 84 | . 69 | . 62 | . 53 | . 56 | 1.03 | 1.19 | 2.60 |

## Dates of Spring and Fall Low Temperatures

 Madras, Oregon| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 25-Apr | 24-May | 30-Jun | 24-Jul | 22-Sep | 6-Sep | 6-Sep | 25-Aug |
| 1962 | 4-May | 2-Jun | 3-Jul | 19-Jul | 5-Oct | 5-Oct | 27-Aug | 23-Aug |
| 1963 | 27-Apr | 27-Apr | 29-Jul | 30-Jul | 19-Oct | 19-Oct | 12-Oct | 1-Aug |
| 1964 | 26-May | 26-May | 27-Jun | 24-Jul | 3-Oct | 9-Sep | 30-Aug | 5-Aug |
| 1965 | 7-May | 24-May | 27-Jun | 22-Jul | 17-Sep | 17-Sep | 29-Aug | 28-Aug |
| 1966 | 17-May | 23-May | 1-Jun | 30-Jun | 9-Oct | 3-Oct | 1-Oct | 30-Aug |
| 1967 | 1-May | 25-May | 31-May | 13-Jun | 16-Oct | 4-Oct | 12-Sep | 12-Sep |
| 1968 | 7-May | 8-May | 16-May | 30-Jun | 2-Oct | 2-Oct | 21-Sep | 19-Sep |
| 1969 | 27-Apr | 27-Apr | 15-May | 28-May | 4-Oct | 15-Sep | 29-Aug | 29-Aug |
| 1970 | 27-Apr | 14-May | 28-May | 16-Jun | 13-Sep | 9-Sep | 9-Sep | 8-Sep |
| 1971 | 17-May | 17-May | 29-Jun | 7-Jul | 1-Oct | 19-Sep | 14-Sep | 23-Aug |
| 1972 | 1-May | 25-May | 25-May | 26-May | 27-Sep | 25-Sep | 10-Sep | 10-Sep |
| 1973 | 30-Apr | 26-May | 10-Jun | 1-Jul | 3-Oct | 1-Oct | 1-Sep | 1-Sep |
| 1974 | 13-May | 30-May | 8-Jun | 12-Jul | 4-Oct | 3-Oct | 12-Sep | 7-Aug |
| 1975 | 6-May | 20-May | 8 -Jun | 25-Jun | 31-Oct | 22-Oct | 2-Sep | 31-Aug |
| 1976 | 26-Apr | 2-Jun | 26-Jun | 26-Jun | 18-Oct | 18-Oct | 7-Sep | 7-Sep |
| 1977 | 6-May | 6-May | 28-May | 5-Jul | 3-Nov | 3-Oct | 26-Sep | 8-Sep |
| 1978 | 5-May | 22-May | 30-May | 16-Jun | 22-Oct | 19-Sep | 12-Sep | 12-Sep |
| 1979 | 20-Apr | 29-May | 7-Jun | 1-Jul | 10-Nov | 21-Oct | 3-Oct | 10-Sep |
| 1980 | 11-Apr | 30-Apr | 4-Jun | 10-Jun | 22-Oct | 9-Oct | 21-Aug | 15-Aug |
| 1981 | 14-Apr | 12-May | 14-Jun | 13-Jul | 14-Oct | 12-Oct | 23-Sep | 22-Sep |
| 1982 | 29-Apr | 27-May | 7-Jun | 22-Jul | 18-Oct | 16-Sep | 15-Sep | 12-Sep |
| 1983 | 15-Apr | 10-May | 19-May | 16-Jul | 20-Sep | 19-Sep | 9-Sep | 6-Sep |
| 1984 | 6-May | 1-Jun | 10-Jun | 7-Jul | 24-Sep | 12-Sep | 10-Sep | 1-Sep |
| 1985 | 11-May | 12-May | 24-Jun | 25-Jun | 29-Sep | 18-Sep | 7-Sep | 21-Aug |
| 1986 | 14-May | 22-May | 22-May | 17-Jul | 12-Oct | 11-Oct | 11-Sep | 11-Sep |
| 1987 | 19-Apr | 20-Apr | 1-Jun | 22-Jun | 10-Oct | 16-Sep | 16-Sep | 17-Aug |
| 1988 | 4-May | 30-May | 6-Jul | 6-Jul | 18-Nov | 17-Sep | 11-Sep | 8-Sep |
| 1989 | 26-Mar | 28-May | 28-May | 21-Jun | M | M | 3-Sep | 31-Aug |
| 1990 | 9-May | 15-May | 3-Jul | 3-Jul | 6-Oct | 6-Oct | 6-Oct | 13-Sep |

Probabilities

| 10 | 14-Apr | 29-Apr | 21-May | 12-Jun | 21-Sep | 11-Sep | 29-Aug | 14-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 24-Apr | 9-May | 28-May | 20-Jun | 28-Sep | 16-Sep | 1-Sep | 22-Aug |
| Median $(50 \%)$ | 2-May | 22-May | 7-Jun | 2-Jul | 6-Oct | 1-Oct | 10-Sep | 1-Sep |
| 80 | 9-May | 28-May | 27-Jun | 17-Jul | 20-Oct | 9-Oct | 21-Sep | 11-Sep |
| 90 | 14-May | 30-May | 3-Jul | 22-Jul | 31-Oct | 18-Oct | 1-Oct | 12-Sep |

$$
\mathrm{M}=\text { Missing }
$$

## Malheur Experiment Siation, Oregon

Latitude: $\quad 43^{\circ} 59^{\prime}$

Longitude: $\quad 117^{\circ} 01^{\prime}$
Elevation: $\quad 2230 \mathrm{ft}$.
County: Malheur
Station Number: 355160
Agency: Oregon State Agricultural Experiment Station

Station History:

| EaGutie | Eongiuat | Elevation | Scarmsate | Enconate |
| :---: | :---: | :---: | :---: | :---: |
| $43^{\circ} 59$ | $117^{\circ} 04^{\prime}$ | 2251 | 7/20/42 | 3/21/48 |
| $43^{\circ} 59$ | $117{ }^{\circ} 04^{\prime}$ | 2251 | 3/21/48 | 7/1/48 |
| $43^{\circ} 58{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2250 | 7/1/48 | 5/1/56 |
| $43^{\circ} 59{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2230 | 5/1/56 | 6/1/59 |
| $43^{\circ} 59{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2230 | 6/1/59 | 11/1/71 |
| $43^{\circ} 59{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2240 | 11/1/71 | 2/1/78 |
| $43^{\circ} 59{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2240 | 2/1/78 | 9/1/79 |
| $43^{\circ} 59{ }^{\prime}$ | $117^{\circ} 01^{\prime}$ | 2230 | 9/1/79 | present |

Monthly Means and Extremes
Malheur Experiment Station, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 33.7 | 42.8 | 54.4 | 63.9 | 73.4 | 82.7 | 91.3 | 89.7 | 78.5 | 65.0 | 47.8 | 35.7 | 63.2 |
| Minimum | 18.5 | 24.7 | 31.0 | 37.1 | 45.0 | 52.8 | 58.1 | 55.8 | 45.9 | 35.8 | 28.7 | 20.7 | 37.8 |
| Mean | 26.1 | 33.7 | 42.7 | 50.5 | 59.2 | 67.8 | 74.7 | 72.8 | 62.2 | 50.4 | 38.2 | 28.2 | 50.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 60 | 66 | 79 | 91 | 100 | 104 | 105 | 108 | 98 | 87 | 77 | 62 | 108 |
| Minimum | -26 | -24 | 5 | 22 | 27 | 34 | 36 | 39 | 25 | 19 | -5 | -21 | -26 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.26 | . 93 | . 98 | . 73 | . 81 | . 80 | . 29 | . 55 | . 54 | . 67 | 1.26 | 1.37 | 10.19 |
| Extreme 24 hr . | . 90 | . 78 | 1.37 | . 80 | . 69 | . 82 | . 67 | 1.22 | . 81 | 1.03 | . 71 | . 91 | 1.37 |
| Evaporation in inches |  |  |  | 5.85 | 8.08 | 9.22 | 11.40 | 9.85 | 6.36 | 3.13 |  |  | 53.91 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  | . 1 | 1.3 | 7.4 | 20.4 | 18.3 | 4.0 |  |  |  | 51.5 |
| Maximum $32^{\circ}$ or less | 12.7 | 3.2 | . 1 |  |  |  |  |  |  |  | . 8 | 9.1 | 25.9 |
| Minimum $32^{\circ}$ or less | 28.4 | 24.0 | 19.3 | 8.4 | 1.1 |  |  |  | . 9 | 10.2 | 21.1 | 28.1 | 141.6 |
| Minimum $0^{\circ}$ or less | 2.7 | . 9 |  |  |  |  |  |  |  |  | . 1 | 2.1 | 5.8 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 9.0 | 7.8 | 8.3 | 6.3 | 6.2 | 5.5 | 2.1 | 3.3 | 3.7 | 4.8 | 9.7 | 9.5 | 76.2 |
| . 10 inches or more | 4.1 | 3.4 | 3.1 | 2.3 | 2.8 | 2.5 | . 8 | 1.5 | 1.7 | 2.2 | 4.4 | 4.6 | 33.4 |
| . 50 inches or more | . 4 | . 2 | . 3 | . 2 | . 2 | . 3 | . 1 | . 2 | . 3 | . 3 | . 3 | . 4 | 3.0 |
| 1.00 inches or more |  |  | . 03 |  |  |  |  | . 03 |  | . 03 |  |  | . 10 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1206 | 883 | 691 | 438 | 211 | 57 | 7 | 15 | 135 | 454 | 803 | 1141 | 6040 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 0 | 0 | 12 | 92 | 296 | 533 | 765 | 705 | 372 | 90 | 3 | 0 | 2868 |

Total Monthly Precipitation (in inches)
Malheur Experiment Station, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 52 | 1.08 | 1.17 | . 09 | . 42 | . 05 | . 30 | . 33 | . 77 | 1.11 | . 74 | . 87 | 7.45 |
| 1962 | . 79 | 1.61 | . 78 | . 42 | 2.72 | T | . 01 | . 31 | . 58 | 1.97 | 1.13 | 1.24 | 11.56 |
| 1963 | . 98 | . 60 | . 16 | 2.02 | . 31 | 1.81 | . 03 | . 43 | . 54 | . 63 | 1.29 | 1.03 | 9.83 |
| 1964 | 1.89 | . 08 | . 82 | . 98 | 1.33 | 1.69 | . 68 | . 58 | . 24 | . 19 | 1.50 | 2.79 | 12.77 |
| 1965 | 2.01 | . 15 | . 10 | . 84 | . 45 | 1.33 | . 13 | 1.88 | . 28 | . 19 | 2.04 | . 03 | 9.43 |
| 1966 | . 12 | . 55 | . 69 | . 19 | . 24 | . 15 | . 00 | . 08 | . 31 | . 27 | 1.54 | 1.60 | 5.74 |
| 1967 | 1.31 | . 09 | . 52 | 1.02 | 1.84 | 1.15 | T | T | . 81 | . 71 | . 27 | . 38 | 8.10 |
| 1968 | . 55 | 2.02 | . 39 | . 19 | . 63 | . 33 | T | 2.20 | T | . 38 | 2.54 | 1.65 | 10.88 |
| 1969 | 2.64 | 1.28 | . 43 | 1.15 | . 56 | . 85 | . 03 | T | . 30 | 1.07 | . 15 | 1.96 | 10.42 |
| 1970 | 3.92 | . 33 | . 83 | . 11 | . 66 | 1.66 | . 04 | . 04 | . 99 | 1.35 | 2.04 | 1.46 | 13.43 |
| 1971 | 1.52 | . 25 | 1.14 | . 26 | . 04 | . 94 | T | . 01 | . 32 | . 38 | 1.85 | 1.09 | 7.80 |
| 1972 | 1.02 | . 74 | 1.04 | . 26 | . 09 | 1.50 | . 16 | . 77 | . 44 | . 65 | . 88 | 1.92 | 9.47 |
| 1973 | 1.19 | . 31 | . 77 | . 42 | . 83 | . 15 | . 01 | . 01 | . 56 | . 48 | 2.48 | 2.08 | 9.29 |
| 1974 | 1.10 | . 55 | 1.20 | . 25 | . 14 | . 18 | . 57 | . 02 | . 00 | . 65 | . 71 | 1.37 | 6.74 |
| 1975 | . 86 | 1.82 | 1.19 | 1.31 | . 23 | 1.53 | . 51 | . 58 | T | 1.46 | . 65 | 1.45 | 11.59 |
| 1976 | 1.39 | . 97 | . 49 | . 94 | . 17 | . 28 | . 69 | 1.25 | 1.42 | . 09 | . 19 | . 12 | 8.00 |
| 1977 | . 93 | . 27 | . 46 | . 11 | 1.87 | . 04 | . 34 | . 74 | . 95 | . 18 | 1.85 | 1.79 | 9.53 |
| 1978 | 2.33 | 1.70 | . 53 | 3.51 | . 14 | . 56 | . 51 | . 20 | . 66 | . 01 | . 61 | . 72 | 11.48 |
| 1979 | 1.93 | 1.82 | . 85 | . 40 | . 90 | . 53 | T | 2.12 | . 15 | 1.21 | 1.18 | . 97 | 12.06 |
| 1980 | 1.28 | 1.50 | 1.54 | . 56 | 1.60 | 1.38 | . 07 | T | 1.59 | . 17 | . 84 | 1.73 | 12.26 |
| 1981 | 1.07 | 1.35 | 1.84 | . 73 | 1.16 | 1.01 | . 49 | . 06 | . 64 | . 93 | 2.76 | 3.53 | 15.57 |
| 1982 | 1.73 | 1.83 | . 68 | . 53 | . 40 | . 83 | . 76 | . 44 | . 54 | 2.06 | . 91 | 3.08 | 13.79 |
| 1983 | 1.46 | 1.48 | 3.73 | . 78 | 1.06 | . 65 | . 72 | . 87 | . 14 | . 33 | 2.08 | 3.57 | 16.87 |
| 1984 | . 33 | . 44 | 1.36 | . 94 | . 95 | 1.42 | 1.26 | 1.08 | . 12 | 1.42 | 1.46 | . 34 | 11.12 |
| 1985 | . 11 | . 36 | . 89 | . 54 | . 96 | . 32 | . 29 | . 15 | 1.59 | . 71 | 1.05 | . 92 | 7.89 |
| 1986 | . 96 | 2.29 | 1.24 | . 56 | . 42 | . 87 | . 19 | . 08 | 1.47 | . 12 | . 22 | . 22 | 8.64 |
| 1987 | 1.24 | . 77 | 1.37 | . 08 | 1.36 | . 96 | . 57 | . 60 | . 00 | . 00 | 1.40 | 1.46 | 9.81 |
| 1988 | 1.25 | . 14 | . 26 | . 75 | . 50 | . 65 | . 06 | T | . 04 | . 00 | 2.45 | 1.48 | 7.58 |
| 1989 | . 88 | 1.27 | 2.17 | . 50 | . 60 | . 76 | . 08 | . 94 | . 83 | . 86 | . 28 | . 01 | 9.18 |
| 1990 | . 49 | . 35 | . 72 | 1.52 | 1.70 | . 36 | . 04 | . 61 | T | . 49 | . 69 | . 29 | 7.26 |
| Mean | 1.26 | . 93 | . 98 | . 73 | . 81 | . 83 | . 33 | . 63 | . 60 | . 67 | 1.26 | 1.37 | 10.18 |
| Maximum | 3.92 | 2.29 | 3.73 | 3.51 | 2.72 | 1.81 | 1.26 | 2.20 | 1.59 | 2.06 | 2.76 | 3.57 | 16.87 |
| Minimum | . 11 | . 08 | . 10 | . 08 | . 04 | . 04 | . 00 | . 01 | . 00 | . 00 | . 15 | . 01 | 5.74 |
| StdDev | . 79 | . 68 | . 71 | . 70 | . 65 | . 54 | . 32 | . 64 | . 48 | . 57 | . 77 | . 97 | 2.62 |

Dates of Spring and Fall Low Temperatures
Malheur Experiment Station, Ontario, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 20-Apr | 23-Apr | 5-May | 5-May | 5-Nov | 21-Oct | 22-Sep | 22-Sep |
| 1962 | 30-Mar | 30-Apr | 30-Apr | 4-Jun | 23-Nov | 7-Nov | 7-Oct | 29-Sep |
| 1963 | 3-Apr | 21-Apr | 21-Apr | 24-Apr | 27-Oct | 26-Oct | 24-Oct | 17-Oct |
| 1964 | 17-Apr | 4-May | 23-May | 23-May | 3-Nov | 17-Oct | 2-Oct | 27-Sep |
| 1965 | 25-Mar | 29-Mar | 6-May | 18-May | 28-Nov | 18-Sep | 17-Sep | 17-Sep |
| 1966 | 24-Mar | 20-Apr | 23-May | 23-May | 24-Nov | 11-Oct | 4-Oct | 1-Oct |
| 1967 | 30-Mar | 29-Apr | 11-May | 26-May | 4-Nov | 24-Oct | 15-Oct | 4-Oct |
| 1968 | 13-Apr | 23-Apr | 6-May | 7-May | 14-Nov | 9-Oct | 3-Oct | 22-Sep |
| 1969 | 13-Mar | 30-Apr | 30-Apr | 3-May | 13-Oct | 13-Oct | 5-Oct | 5-Oct |
| 1970 | 16-Apr | 11-May | 14-May | 14-May | 15-Oct | 15-Oct | 25-Sep | 14-Sep |
| 1971 | 1-Apr | 8-Apr | 27-Apr | 20-May | 18-Oct | 15-Oct | 18-Sep | 18-Sep |
| 1972 | 17-Apr | 30-Apr | 1-May | 9-May | 27-Oct | 27-Oct | 25-Sep | 20-Sep |
| 1973 | 8-Apr | 8-Apr | 11-May | 18-Jun | 2-Nov | 4-Oct | 3-Oct | 3-Oct |
| 1974 | 24-Mar | 14-Apr | 18-May | 21-May | 5-Nov | 6-Oct | 28-Sep | 28-Sep |
| 1975 | 2-Apr | 25-May | 25-May | 26-May | 24-Oct | 24-Oct | 8 -Oct | 8-Oct |
| 1976 | 2-Apr | 3-Apr | 23-Apr | 26-Jun | 19-Oct | 18-Oct | 5-Oct | 9-Sep |
| 1977 | 31-Mar | 15-Apr | 20-Apr | 5-May | 3-Nov | 11-Oct | 22-Sep | 22-Sep |
| 1978 | 15-Mar | 16-Mar | $23-\mathrm{Apr}$ | 25-May | 26-Oct | 23-Oct | 14-Oct | 19-Sep |
| 1979 | 7-Feb | 19-Apr | 20-Apr | 26-Apr | 10-Nov | 2-Nov | 27-Oct | 10-Oct |
| 1980 | 17-Mar | 26-Mar | 13-Apr | 16-Apr | 23-Oct | 17-Oct | 17-Oct | 22-Sep |
| 1981 | 18-Mar | 14-Apr | 14-Apr | 7-May | 22-Oct | 22-Oct | 1-Oct | 23-Sep |
| 1982 | 20-Apr | 21-Apr | 5-May | 8-Jun | 19-Oct | 19-Oct | 5-Oct | 2-Oct |
| 1983 | 6-Feb | 11-Apr | 27-Apr | 14-May | 2-Dec | 16-Oct | 20-Sep | 10-Sep |
| 1984 | 5-Mar | 7-Apr | 7-May | 16-May | 16-Oct | 25-Sep | 25-Sep | 23-Sep |
| 1985 | 26-Mar | 20-Apr | 13-May | 13-May | 9-Oct | 29-Sep | 29-Sep | 18-Sep |
| 1986 | 14-Feb | 21-Feb | 23-May | 5-Jul | 10-Nov | 12-Oct | 12-Oct | 21-Sep |
| 1987 | 30-Mar | 20-Apr | 21-Apr | 2-May | 18-Nov | 11-Oct | 11-Oct | 27-Sep |
| 1988 | 13-Mar | 10-Apr | 2-May | 7-May | 26-Nov | 31-Oct | 30-Oct | 23-Sep |
| 1989 | 5-Mar | 30-Mar | 19-May | 25-May | 29-Oct | 16-Oct | 13-Sep | 13-Sep |
| 1990 | 25-Mar | 25-Mar | 8-May | 2-Jun | 17-Oct | 8-Oct | 7-Oct | 4-Oct |

Probabilities

| 10 | 3-Mar | 25-Mar | 20-Apr | 1-May | 15-Oct | 3-Oct | 19-Sep | 13-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 13-Mar | 2-Apr | 22-Apr | 5-May | 18-Oct | 8-Oct | 24-Sep | 18-Sep |
| Median $(50 \%)$ | $28-\mathrm{Mar}$ | $17-\mathrm{Apr}$ | 5-May | 17-May | 31-Oct | 16-Oct | 3-Oct | 25-Sep |
| 80 | 9-Apr | 29-Apr | 14-May | 27-May | 14-Nov | 24-Oct | 12-Oct | 3-Oct |
| 90 | 17-Apr | 30-Apr | 23-May | 9-Jun | 24-Nov | 27-Oct | 17-Oct | 5-Oct |

## Medford, Oregon

Latitude: $\quad 42^{\circ} \mathbf{2 2}$
Longitude: $\quad 122^{\circ} 52^{\prime}$
Elevation: 4140
County: Jackson
Station Number: 355429
Agency: National Weather Service

Station History:

| Latitude | Longitude | Elevation | Start Date | End Date |
| :---: | :---: | :---: | :---: | :---: |
| $42^{\circ} 20^{\prime}$ | $122^{\circ} 51^{\prime}$ | 1379 | $3 / 11 / 11$ | $7 / 15 / 27$ |
| $42^{\circ} 20^{\prime}$ | $122^{\circ} 51^{\prime}$ | 1407 | $7 / 16 / 27$ | $10 / 31 / 29$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1314 | $11 / 1 / 29$ | $7 / 1 / 48$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $7 / 1 / 48$ | $12 / 1 / 49$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $12 / 1 / 49$ | $9 / 1 / 51$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $10 / 1 / 51$ | $5 / 1 / 52$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $5 / 1 / 52$ | $12 / 1 / 56$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $1 / 1 / 57$ | $1 / 1 / 60$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $1 / 1 / 60$ | $3 / 1 / 61$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1300 | $3 / 1 / 61$ | $1 / 1 / 69$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $1 / 1 / 69$ | $10 / 1 / 70$ |
| $42^{\circ} 22^{\prime}$ | $122^{\circ} 52^{\prime}$ | 1310 | $10 / 1 / 72$ | present |

Monthly Means and Extremes
Medford, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 45.7 | 53.3 | 58.1 | 64.1 | 72.5 | 82.2 | 90.5 | 89.9 | 82.5 | 69.1 | 52.3 | 44.3 | 67.0 |
| Minimum | 30.3 | 32.2 | 34.9 | 37.4 | 43.0 | 49.9 | 54.2 | 54.2 | 47.5 | 39.8 | 34.8 | 31.1 | 40.8 |
| Mean | 37.9 | 42.7 | 46.4 | 50.8 | 57.7 | 66.0 | 72.5 | 72.1 | 65.0 | 54.5 | 43.6 | 37.7 | 53.9 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 71 | 77 | 81 | 93 | 103 | 109 | 110 | 114 | 110 | 99 | 75 | 72 | 114 |
| Minimum | 0 | 9 | 21 | 24 | 28 | 33 | 38 | 39 | 31 | 18 | 10 | -6 | -6 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 2.69 | 1.93 | 1.82 | 1.16 | 1.00 | . 58 | . 26 | . 52 | . 87 | 1.55 | 3.23 | 3.32 | 18.93 |
| Extreme 24 hr . | 1.77 | 1.73 | 1.43 | . 98 | . 80 | . 76 | 1.07 | . 71 | 2.80 | 1.94 | 1.97 | 3.30 | 3.30 |
| Evaporation in inches | . 57 | 1.18 | 2.49 | 3.60 | 5.38 | 6.74 | 8.17 | 6.71 | 4.04 | 1.85 | . 77 | . 56 | 42.06 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  | . 1 | 1.8 | 8.2 | 18.0 | 17.3 | 8.3 | . 9 |  |  | 54.6 |
| Maximum $32^{\circ}$ or less | 1.0 |  |  |  |  |  |  |  |  |  | . 1 | 2.0 | 3.0 |
| Minimum $32^{\circ}$ or less | 19.7 | 14.9 | 11.3 | 6.6 | . 9 |  |  |  | . 2 | 4.1 | 10.9 | 17.1 | 85.7 |
| Minimum $0^{\circ}$ or less |  |  |  |  |  |  |  |  |  |  |  | . 2 | . 2 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 12.6 | 11.1 | 11.9 | 9.7 | 7.0 | 4.9 | 1.7 | 3.1 | 4.2 | 7.4 | 13.7 | 13.8 | 101.1 |
| . 10 inches or more | 6.0 | 5.0 | 5.4 | 3.8 | 3.3 | 2.1 | . 7 | 1.6 | 2.2 | 3.8 | 7.8 | 7.1 | 48.9 |
| . 50 inches or more | 1.6 | 1.0 | . 6 | . 3 | . 3 | . 2 | . 1 | . 2 | . 4 | . 9 | 1.7 | 1.9 | 9.2 |
| 1.00 inches or more | . 5 | . 3 | . 1 |  |  |  |  |  | . 1 | . 2 | . 6 | . 5 | 2.4 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 839 | 630 | 576 | 428 | 247 | 70 | 10 | 9 | 79 | 333 | 644 | 848 | 4713 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 3 | 7 | 26 | 89 | 247 | 480 | 695 | 684 | 450 | 168 | 13 | 3 | 2865 |

Total Monthly Precipitation (in inches)
Medford, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | 1.12 | 2.74 | 3.05 | . 96 | 1.86 | . 34 | . 10 | . 15 | . 93 | 2.38 | 3.42 | 2.60 | 19.65 |
| 1962 | 1.69 | 1.05 | 1.55 | . 81 | . 80 | . 15 | . 00 | 1.00 | . 76 | 6.27 | 4.37 | 4.68 | 23.13 |
| 1963 | 1.75 | 2.47 | . 88 | 2.25 | 2.23 | . 92 | . 15 | . 26 | . 26 | 1.40 | 5.25 | 1.05 | 18.87 |
| 1964 | 5.60 | . 21 | 2.71 | 37 | . 82 | . 79 | . 97 | . 10 | . 15 | . 90 | 3.75 | 12.72 | 29.09 |
| 1965 | 4.30 | . 70 | . 41 | 3.07 | . 31 | 1.05 | . 03 | 1.52 | . 00 | . 46 | 2.56 | 3.71 | 18.12 |
| 1966 | 4.80 | . 37 | 1.70 | . 45 | . 20 | . 37 | 1.63 | . 19 | 1.88 | . 76 | 5.89 | 2.80 | 21.04 |
| 1967 | 5.44 | 1.14 | 2.08 | 1.72 | . 96 | . 27 | . 00 | . 00 | . 28 | 2.34 | 1.04 | 3.40 | 18.67 |
| 1968 | 1.86 | 2.95 | . 90 | . 38 | 1.05 | . 06 | . 00 | 1.33 | . 32 | . 62 | 3.04 | 2.78 | 15.29 |
| 1969 | 6.16 | 1.46 | . 29 | . 60 | 1.62 | 1.31 | . 02 | . 00 | . 62 | 2.46 | . 49 | 5.44 | 20.47 |
| 1970 | 6.19 | 1.70 | 1.13 | 1.44 | . 34 | . 59 | . 00 | . 34 | . 22 | 1.39 | 6.57 | 3.36 | 23.27 |
| 1971 | 3.68 | 1.43 | 2.72 | 1.34 | 1.13 | . 97 | . 07 | . 28 | 1.24 | . 61 | 3.43 | 2.45 | 19.35 |
| 1972 | 3.55 | 2.49 | 3.62 | . 94 | 1.61 | 1.59 | . 00 | . 36 | . 52 | 1.21 | 1.50 | 3.23 | 20.62 |
| 1973 | 1.98 | . 54 | 1.58 | . 76 | . 45 | . 06 | . 04 | . 03 | . 64 | 2.79 | 7.01 | 3.02 | 18.90 |
| 1974 | 4.32 | 2.78 | 3.26 | 1.70 | . 22 | . 00 | . 10 | . 00 | . 00 | 1.17 | 1.13 | 3.91 | 18.59 |
| 1975 | 2.64 | 2.64 | 3.97 | 1.27 | . 24 | . 38 | . 22 | . 54 | . 65 | 2.21 | 1.85 | 2.74 | 19.35 |
| 1976 | 1.62 | 2.21 | 1.13 | 1.67 | . 11 | . 04 | . 84 | 2.83 | . 90 | . 18 | . 43 | . 36 | 12.32 |
| 1977 | 1.17 | . 67 | 1.12 | . 81 | 2.37 | . 53 | . 23 | . 36 | 4.22 | . 96 | 4.91 | 4.81 | 22.16 |
| 1978 | 1.53 | 2.45 | 2.03 | 1.26 | 1.59 | 1.02 | . 54 | 1.46 | 1.68 | . 01 | 1.50 | . 66 | 15.73 |
| 1979 | 2.81 | 1.54 | . 83 | 2.24 | 1.42 | . 55 | . 02 | . 63 | . 32 | 3.98 | 3.17 | 2.73 | 20.24 |
| 1980 | 2.59 | 1.78 | 1.27 | 1.75 | . 69 | 1.22 | . 02 | . 00 | . 18 | 1.52 | 2.28 | 2.59 | 15.89 |
| 1981 | . 54 | 1.72 | 1.23 | . 55 | 1.17 | . 47 | . 41 | . 00 | . 52 | 1.23 | 6.05 | 8.02 | 21.91 |
| 1982 | 1.43 | 3.64 | 2.30 | . 87 | . 00 | . 85 | . 07 | . 03 | . 97 | 1.60 | 2.17 | 5.31 | 19.24 |
| 1983 | . 92 | 5.67 | 3.21 | 1.12 | . 81 | . 66 | . 59 | 2.21 | 2.05 | 1.21 | 4.97 | 6.73 | 30.15 |
| 1984 | . 19 | 2.50 | 2.05 | 1.11 | . 39 | . 79 | . 16 | . 40 | . 51 | 3.77 | 6.56 | 1.96 | 20.39 |
| 1985 | . 23 | 1.58 | 1.22 | . 39 | 1.00 | 37 | . 00 | . 02 | 1.53 | 1.50 | 2.02 | . 83 | 10.69 |
| 1986 | 1.99 | 5.22 | 1.02 | . 23 | 1.19 | . 45 | . 00 | . 00 | 2.31 | 1.49 | 2.45 | . 72 | 17.07 |
| 1987 | 2.89 | 2.23 | 1.34 | . 45 | . 95 | . 12 | 1.34 | . 00 | . 00 | . 00 | 1.68 | 3.77 | 14.77 |
| 1988 | 2.53 | . 20 | . 57 | 1.07 | 1.51 | 1.04 | . 00 | . 02 | . 22 | . 12 | 5.14 | 1.28 | 13.70 |
| 1989 | 2.33 | . 78 | 3.94 | 2.42 | 1.01 | . 16 | . 00 | . 41 | 1.94 | . 71 | . 71 | . 68 | 15.09 |
| 1990 | 2.94 | 1.06 | 1.49 | . 82 | 1.86 | . 17 | . 11 | . 99 | . 13 | 1.29 | 1.52 | 1.12 | 13.50 |
| Mean | 2.69 | 1.93 | 1.82 | 1.16 | 1.00 | . 58 | . 26 | . 52 | . 87 | 1.55 | 3.23 | 3.32 | 18.91 |
| Maximum | 6.19 | 5.67 | 3.97 | 3.07 | 2.37 | 1.59 | 1.63 | 2.83 | 4.22 | 6.27 | 7.01 | 12.72 | 30.15 |
| Minimum | . 19 | . 20 | . 29 | . 23 | . 00 | . 00 | . 00 | . 00 | . 00 | . 00 | . 43 | . 36 | 10.69 |
| StdDev | 1.71 | 1.31 | 1.05 | . 70 | . 64 | . 43 | . 42 | . 71 | . 92 | 1.33 | 2.00 | 2.56 | 4.30 |

## Dates of Spring and Fall Low Temperatures <br> Medford, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 19-Jan | 28-Mar | 26-Apr | 27-May | 7-Nov | 8-Oct | 29-Sep | 22-Sep |
| 1962 | 14-Mar | 10-Apr | 16-May | 5-Jun | 29-Nov | 7-Nov | 5-Oct | 5-Oct |
| 1963 | 18-Mar | 20-Apr | 28-Apr | 13-May | 1-Nov | 27-Oct | 26-Oct | 25-Oct |
| 1964 | 29-Feb | 24-Apr | 6-May | 25-May | 15-Nov | 17-Oct | 16-Oct | 18-Sep |
| 1965 | 18-Mar | 19-Mar | 8-May | 27-Jun | 13-Dec | 27-Nov | 18-Sep | 17-Sep |
| 1966 | 22-Mar | 19-Apr | 29-Apr | 4-Jun | *** | 14-Oct | 13-Oct | 10-Oct |
| 1967 | 4-Mar | 28-Apr | 1-May | 13-May | 26-Nov | 20-Nov | 15-Oct | 14-Oct |
| 1968 | 14-Feb | 6-May | 6-May | 7-May | 19-Dec | 30-Nov | 6-Nov | 8-Oct |
| 1969 | 11-Mar | 25-Mar | 2-May | 2-May | 29-Nov | 6-Nov | 4-Oct | 4-Oct |
| 1970 | 6-Jan | 21-Apr | 27-Apr | 21-May | 18-Dec | 7-Oct | 14-Sep | 13-Sep |
| 1971 | 26-Feb | 18-Mar | 17-May | 20-May | 28-Oct | 17-Oct | 16-Oct | 16-Oct |
| 1972 | 18-Apr | 30-Apr | 1-May | 24-May | 4-Dec | 27-Oct | 20-Sep | 20-Sep |
| 1973 | 19-Feb | 2-Apr | 29-Apr | 10-May | *** | 19-Nov | 2-Nov | 2-Oct |
| 1974 | 8-Mar | 13-Apr | 26-Apr | 30-May | 29-Nov | 3-Nov | 5-Oct | 4-Oct |
| 1975 | 21-Feb | 16-Apr | 25-May | 25-May | 18-Nov | 12-Nov | 14-Oct | 14-Oct |
| 1976 | 2-Apr | 9-Apr | 26-Apr | 4-Jun | 26-Nov | 27-Oct | 17-Oct | 4-Oct |
| 1977 | 19-Feb | 19-Apr | 8-May | 27-May | $9-\mathrm{Nov}$ | 8-Nov | 21-Oct | 9-Oct |
| 1978 | 1-Mar | 15-Mar | 6-May | 17-May | 31-Oct | 30-Oct | 19-Sep | 19-Sep |
| 1979 | 3-Feb | 15-Feb | 29-May | 30-May | 21-Nov | 19-Nov | 8-Nov | 29-Oct |
| 1980 | 11-Feb | 2-Apr | 11-Apr | 23-May | 7-Dec | 12-Nov | 18-Oct | 17-Oct |
| 1981 | $9-\mathrm{Feb}$ | 17-Mar | 7-May | 12-May | *** | 28-Nov | 12-Oct | 25-Sep |
| 1982 | 12-Feb | 21-Mar | 4-May | 19-May | 10-Nov | 2-Nov | 18-Oct | 30-Sep |
| 1983 | 4-Feb | 13-Apr | 10-May | 11-May | 22-Dec | 29-Nov | 7-Nov | 19-Sep |
| 1984 | 3-Feb | 3-Mar | 6-May | 10-Jun | 19-Dec | 5-Dec | 23-Oct | 24-Sep |
| 1985 | 3-Mar | 22-Mar | 4-May | 15-May | 11-Nov | 9-Oct | $8-\mathrm{Oct}$ | 8-Oct |
| 1986 | 10-Feb | 14-Mar | 30-Apr | 15-May | *** | 10-Dec | 13-Oct | 2-Oct |
| 1987 | 25-Feb | 19-Apr | 19-Apr | 20-May | 29-Nov | 27-Nov | 5-Nov | 14-Oct |
| 1988 | 11-Mar | $8-\mathrm{Apr}$ | $9-\mathrm{Apr}$ | 4-May | 15-Dec | 29-Nov | $9-\mathrm{Nov}$ | 18-Sep |
| 1989 | 28-Feb | 3-Mar | 26-Mar | 19-May | 28-Nov | 29-Oct | 29-Oct | 3-Oct |
| 1990 | 13-Mar | 13-Mar | 8-May | 15-May | 19-Dec | 2-Nov | 6-Oct | 6-Oct |

Probabilities

| 10\% | 3-Feb | 12-Mar | 18-Apr | 9-May | 4-Nov | 13-Oct | 19-Sep | 18-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20\% | 9-Feb | 16-Mar | 26-Apr | 12-May | 10-Nov | 25-Oct | 4-Oct | 19-Sep |
| Median (50\%) | 27-Feb | 5-Apr | 3-May | 20-May | 28-Nov | 6-Nov | 15-Oct | 4-Oct |
| 80\% | 13-Mar | 19-Apr | 8-May | 30-May | 15-Dec | 27-Nov | 29-Oct | 14-Oct |
| 90\% | 18-Mar | 24-Apr | 16-May | 4-Jun | 19-Dec | 29-Nov | 6-Nov | 16-Oct |

## Moro, Oregon

Latitude: $\quad 45^{\circ} 29^{\prime}$

Longitude: $\quad 120^{\circ} 43^{\prime}$
Elevation: $\quad 1870 \mathrm{ft}$.

County: Sherman

Station Number: 355734

Agency: Oregon State Agricultural Experiment Station

Station History:

| \%ativer | \%ongilua | Elemation | Saramer | Fireigate |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 29{ }^{\prime}$ | $120^{\circ} 43^{\prime}$ | 1858 | 1/1/1897 | 12/31/1897 |
| $45^{\circ} 29^{\prime}$ | $120^{\circ} 43^{\prime}$ | 1858 | 1/1/1898 | 1/31/1898 |
| $45^{\circ} 29^{\prime}$ | $120^{\circ} 43^{\prime}$ | 1858 | 1/1/17 | 7/1/48 |
| $45^{\circ} 29$ | $120^{\circ} 43^{\prime}$ | 1870 | 7/1/48 | 9/1/51 |
| $45^{\circ} 29{ }^{\prime}$ | $120^{\circ} 43{ }^{\prime}$ | 1870 | 10/1/51 | 4/1/57 |
| $45^{\circ} 29$ | $120^{\circ} 43 '$ | 1870 | 4/1/57 | 2/1/60 |
| $45^{\circ} 29^{\prime}$ | $120^{\circ} 43^{\prime}$ | 1870 | 2/1/60 | 3/1/68 |
| $45^{\circ} 29^{\prime}$ | $120^{\circ} 43 '$ | 1870 | 3/1/68 | 11/1/71 |
| $45^{\circ} 29$ | $120^{\circ} 43 '$ | 1870 | 11/1/71 | present |

Monthly Means and Extremes
Moro, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 33.7 | 42.8 | 54.4 | 63.9 | 73.4 | 82.7 | 91.3 | 89.7 | 78.5 | 65.0 | 47.8 | 35.7 | 63.2 |
| Minimum | 24.2 | 28.5 | 31.9 | 35.7 | 41.5 | 48.6 | 53.7 | 53.2 | 45.4 | 36.8 | 31.0 | 25.1 | 37.9 |
| Mean | 31.0 | 36.1 | 41.4 | 46.5 | 53.4 | 61.3 | 67.7 | 67.2 | 59.1 | 49.2 | 38.9 | 31.7 | 48.5 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 60 | 66 | 79 | 91 | 100 | 104 | 105 | 108 | 98 | 87 | 77 | 62 | 108 |
| Minimum | -14 | -15 | 13 | 19 | 25 | 27 | 35 | 31 | 23 | 14 | -15 | -16 | -16 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.49 | . 99 | 1.08 | . 81 | . 84 | . 60 | . 28 | . 47 | . 54 | . 75 | 1.66 | 1.74 | 11.25 |
| Extreme 24 hr . | 1.64 | 1.14 | . 63 | 1.21 | 1.52 | 1.14 | . 59 | . 69 | . 85 | 1.08 | . 98 | 1.26 | 1.64 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  | . 1 | 1.3 | 7.4 | 20.4 | 18.3 | 4.0 |  |  |  | 51.5 |
| Maximum $32^{\circ}$ or less | 12.7 | 3.2 | . 1 |  |  |  |  |  |  |  | . 8 | 9.1 | 25.9 |
| Minimum $32^{\circ}$ or less | 25.3 | 20.2 | 16.9 | 9.6 | 2.5 | . 2 |  |  | . 9 | 8.5 | 16.9 | 24.8 | 125.2 |
| Minimum $0^{\circ}$ or less | 1.5 | . 5 |  |  |  |  |  |  |  |  | . 2 | 1.1 | 3.3 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 11.0 | 9.5 | 10.5 | 8.2 | 6.5 | 4.8 | 2.8 | 3.6 | 4.1 | 6.7 | 13.0 | 11.2 | 91.0 |
| . 10 inches or more | 4.4 | 3.6 | 3.7 | 2.4 | 2.5 | 1.8 | 1.0 | 1.5 | 1.7 | 2.5 | 5.5 | 5.4 | 35.5 |
| . 50 inches or more | . 6 | . 1 | . 2 | . 1 | . 2 | . 2 | . 1 | . 1 | . 2 | . 2 | . 5 | . 8 | 3.2 |
| 1.00 inches or more | . 1 |  |  |  |  |  |  |  |  |  |  | . 1 | . 4 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days © $65^{\circ} \mathrm{F}$ | 1055 | 816 | 732 | 557 | 370 | 169 | 66 | 64 | 205 | 491 | 784 | 1031 | 6343 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 0 | 1 | 6 | 41 | 151 | 342 | 548 | 535 | 285 | 76 | 4 | 1 | 1988 |

Total Monthly Precipitation (in inches)
Moro, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 96 | 3.31 | 2.00 | . 86 | 1.26 | . 85 | . 20 | . 12 | . 07 | . 44 | 1.48 | 1.72 | 13.27 |
| 1962 | . 22 | 1.04 | . 74 | . 75 | 1.96 | . 05 | . 00 | . 87 | . 36 | 1.90 | 1.83 | 1.98 | 11.70 |
| 1963 | . 78 | . 95 | 1.17 | 2.12 | . 64 | . 14 | . 45 | . 62 | 1.63 | . 50 | 1.56 | 1.36 | 11.92 |
| 1964 | . 60 | . 25 | . 80 | . 15 | . 08 | 1.30 | . 04 | . 18 | . 16 | . 60 | 1.69 | 6.11 | 11.96 |
| 1965 | 1.65 | . 16 | . 63 | . 72 | . 32 | . 59 | . 17 | 1.04 | . 08 | . 36 | 2.07 | . 51 | 8.30 |
| 1966 | 2.45 | . 54 | . 78 | . 06 | . 02 | . 13 | 1.31 | . 00 | . 47 | . 74 | 3.14 | 1.84 | 11.48 |
| 1967 | . 91 | . 03 | . 55 | 1.47 | . 39 | . 32 | . 00 | . 00 | . 26 | . 74 | . 84 | . 54 | 6.05 |
| 1968 | . 97 | 1.04 | . 16 | . 10 | . 74 | . 10 | . 15 | 1.52 | . 40 | 1.04 | 2.67 | 2.09 | 10.98 |
| 1969 | 1.93 | . 44 | . 63 | . 84 | . 84 | 1.99 | . 00 | . 00 | . 52 | . 76 | . 53 | 2.00 | 10.48 |
| 1970 | 3.96 | 1.27 | . 88 | . 38 | . 33 | . 22 | . 00 | . 00 | . 13 | . 68 | 2.36 | 1.21 | 11.42 |
| 1971 | 1.63 | . 12 | 1.28 | . 84 | . 93 | . 81 | . 20 | . 09 | 1.36 | . 45 | 1.50 | 1.03 | 10.24 |
| 1972 | 2.25 | . 26 | 1.44 | . 40 | . 45 | 1.70 | . 07 | . 55 | . 57 | . 43 | . 83 | 1.60 | 10.55 |
| 1973 | 1.09 | . 34 | . 40 | . 21 | . 34 | . 25 | . 00 | . 07 | . 90 | . 85 | 3.70 | 3.99 | 12.14 |
| 1974 | 1.29 | . 97 | 1.30 | 1.18 | . 38 | . 02 | . 41 | . 00 | . 00 | . 37 | 1.02 | 1.39 | 8.33 |
| 1975 | 2.01 | 1.47 | 1.25 | . 46 | . 53 | . 84 | . 40 | 1.26 | . 00 | 1.17 | 1.34 | 1.26 | 11.99 |
| 1976 | 1.25 | . 93 | . 95 | 1.06 | . 14 | . 06 | . 79 | 1.06 | . 04 | . 10 | . 43 | . 20 | 7.01 |
| 1977 | . 18 | . 63 | . 50 | . 08 | 2.70 | . 28 | . 37 | . 90 | . 88 | . 22 | 2.00 | 3.22 | 11.96 |
| 1978 | 2.80 | 1.31 | . 74 | 1.42 | . 48 | . 44 | . 59 | 1.32 | . 33 | . 01 | . 79 | . 69 | 10.92 |
| 1979 | 1.59 | 1.54 | . 99 | 1.06 | . 28 | . 10 | . 07 | 1.12 | . 53 | 2.59 | 2.23 | . 65 | 12.75 |
| 1980 | 3.41 | 1.83 | . 94 | . 89 | 1.27 | 1.37 | . 16 | . 11 | . 42 | . 79 | 1.73 | 2.95 | 15.87 |
| 1981 | 1.52 | 1.22 | . 65 | . 41 | 1.06 | 1.15 | . 20 | . 00 | . 92 | . 82 | 1.99 | 4.73 | 14.67 |
| 1982 | 1.10 | . 72 | . 55 | 1.45 | . 37 | 1.15 | . 21 | . 40 | 1.42 | 1.96 | 1.08 | 1.89 | 12.30 |
| 1983 | 1.40 | 2.43 | 2.74 | . 61 | 1.96 | . 39 | . 80 | . 60 | . 52 | . 62 | 2.45 | 2.31 | 16.83 |
| 1984 | . 17 | 1.07 | 2.34 | 1.32 | . 89 | . 00 | . 00 | . 00 | . 53 | . 86 | 3.18 | 4.11 | 14.47 |
| 1985 | . 27 | . 97 | . 44 | . 14 | . 63 | . 92 | . 05 | . 14 | 1.11 | 1.09 | 1.19 | 1.12 | 8.07 |
| 1986 | 1.84 | 2.39 | . 98 | . 34 | . 35 | . 06 | . 54 | . 07 | 1.52 | . 45 | 1.53 | . 78 | 10.85 |
| 1987 | 1.68 | 1.10 | 1.54 | . 28 | . 99 | . 29 | . 78 | . 11 | . 07 | . 01 | . 66 | 3.23 | 10.74 |
| 1988 | 1.60 | . 21 | 1.25 | 2.21 | . 55 | 1.02 | . 04 | . 00 | . 56 | . 02 | 2.51 | . 22 | 10.19 |
| 1989 | 1.33 | . 77 | 1.91 | . 84 | . 91 | . 08 | . 11 | . 49 | . 07 | . 59 | . 96 | . 48 | 8.54 |
| 1990 | 1.91 | . 17 | . 76 | . 79 | 1.36 | . 39 | . 15 | 1.43 | . 29 | 1.27 | . 61 | . 74 | 9.87 |
| Mean | 1.49 | . 98 | 1.04 | . 78 | . 77 | . 57 | . 28 | . 47 | . 54 | . 75 | 1.66 | 1.87 | 11.20 |
| Maximum | 3.96 | 3.31 | 2.74 | 2.21 | 2.70 | 1.99 | 1.31 | 1.52 | 1.63 | 2.59 | 3.70 | 6.11 | 16.83 |
| Minimum | . 17 | . 03 | . 16 | . 06 | . 02 | . 00 | . 00 | . 00 | . 00 | . 01 | . 43 | . 20 | 6.05 |
| StdDev | . 89 | . 76 | . 59 | . 57 | . 61 | . 55 | . 32 | . 51 | . 48 | . 59 | . 85 | 1.44 | 2.42 |

Moro, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 5-Jan | 19-Apr | 4-May | 24-May | 20-Oct | 8-Oct | 8-Oct | 13-Sep |
| 1962 | 15-Feb | 28-Mar | 4-Jun | 4-Jun | 28-Nov | 17-Nov | 5-Oct | 8-Sep |
| 1963 | 23-Feb | 16-Apr | 1-May | 16-May | 21-Nov | 19-Oct | 19-Oct | Oct |
| 1964 | 5-Mar | 25-May | 26-May | 20-Jun | 15-Nov | 18-Oct | 3-Oct | 8-Sep |
| 1965 | 6-Mar | 5-May | 18-May | 18-May | 14-Dec | 17-Sep | 16-Sep | 30-Aug |
| 1966 | 12-Mar | 19-Apr | 18-May | 25-Jun | 26-Dec | 12-Oct | 9-Oct | ct |
| 1967 | 13-Mar | 28-Apr | 26-May | 30-May | 2-Nov | 20-Oct | 19-Oct | 13-Sep |
| 1968 | 15-Mar | 5-May | 8 -May | 12-Jun | 1-Nov | 8-Oct | 2-Oct | ct |
| 1969 | 19-Mar | 26-Apr | 3-May | 3-May | 13-Oct | 13-Oct | -Oct | ep |
| 1970 | 21-Mar | 27-Apr | 29-Apr | 13-May | 27-Oct | 25-Sep | 13-Sep | 9-Sep |
| 1971 | 24-Mar | 12-Apr | 23-Apr | 30-May | 17-Oct | 17-Oct | 16-Oct | 7-jul |
| 1972 | 25-Mar | 1-May | 19-May | 25-May | 30-Oct | 27-Sep | 25-Sep | 23-Sep |
| 1973 | 29-Mar | 11-May | 21-May | 18-Jun | 5-Nov | 3-Nov | 3-Oct |  |
| 1974 | 30-Mar | 16-May | 17-May | 26-Jun | 6-Oct | 6-Oct | 28-Oct | 7-Oct |
| 1975 | 2-Apr | 29-Apr | 25-May | 25-May | 18-Nov | 8-Nov | 18-Oct | 15-Oct |
| 1976 | 3-Apr | 3-Jun | 5-Jun | 6-Jun | 26-Nov 3-Nov | 19-Oct | 2-Oct | 22-Sep |
| 1977 | 5-Apr | 20-Apr | 27-May | 28-May | $3-\mathrm{Nov}$ $25-\mathrm{Oct}$ | 22-Oct | 12-Oct | 19-Sep |
| 1978 | 8 -Apr | 15-Mar | 22-May | 26-May | 25-Oct | 11-Nov | 1-Nov | 27-Sep |
| 1979 | 14-Apr | 19-Apr | 20-Apr | 30-May | 11-Nov 21-Sep | 21-Sep | 29-Aug | 6-Aug |
| 1980 | 16-Apr | 7-Apr | 23-May | 3-Jun | 21-Sep | 21-Oct | 23-Sep | 22-Sep |
| 1981 | 13-Apr | 14-Apr | 8-May |  | 19-Oct | 18-Oct | 15-Sep | 16-Sep |
| 1982 | 20-Apr | 4-May | 5-May | 24-Jun | 29-Nov | 20-Sep | 21-Sep | 19-Sep |
| 1983 | 14-Apr | 15-Apr 30-Mar | 26-Apr 7-May | M | 21-Oct | 16-Oct | 24-Sep | M |
| 1984 | 20-Apr | 12-May | 12-May | 15-May | 19-Oct | 29-Sep | 28-Sep | 7-Sep |
| 1986 | 21-Feb | $30-\mathrm{Apr}$ | 11-May | 23-May | 10-Nov | 10-Nov | 11-Oct | 14-Sep |
| 1987 | 16-Apr | 30-Mar | 20-Apr | 2-Jun | 17-Nov | 19-Oct | 10-Oct | 17-Sep |
| 1988 | 19-Apr | 7-Apr | 17-May | 17-May | 28-Oct | 27-Oct | 27-Oct | 12-Sep |
| 1989 | 19-Apr | 3-Apr | 20-May | 28-May | 1-Nov | 15-Oct | 3-Oct | 3-Oct |
| 1990 | 19-Apr | $9-\mathrm{Apr}$ | 9-May | 25-May | 7-Dec | 7-Oct | 6-Oct | 6-Oct |

Probabilities

| $10 \%$ | $20-\mathrm{Feb}$ | 30-Mar | 25-Apr | 15-May | 16-Oct | 24-Sep | 15-Sep | 5-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 \%$ | 5-Mar | 7-Apr | 2-May | 21-May | 19-Oct | 3-Oct | 23-Sep | 8-Sep |
| Median $(50 \%)$ | 29-Mar | 19-Apr | 14-May | 30-May | 1-Nov | 16-Oct | 4-Oct | 16-Sep |
| $80 \%$ | 16-Apr | 5-May | 23-May | 12-Jun | 22-Nov | 23-Oct | 16-Oct | 2-Oct |
| $90 \%$ | 19-Apr | 12-May | 26-May | 20-Jun | 29-Nov | 8-Nov | 19-Oct | 6-Oct |

[^0]
## North Bend, Oregon

$$
\text { Latitude: } \quad 43^{\circ} 25^{\prime}
$$

Longitude: $\quad 124^{\circ} 15{ }^{\prime}$
Elevation: $\quad 10 \mathrm{ft}$.
County: Coos
Station Number: 356073

Agency: National Weather Service

| Station History: | Eaficute | Eongiture | Elevation | Start Date | Enci Date |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $43^{\circ} 25^{\prime}$ | $124^{\circ} 15^{\prime}$ | 11 | 7/1/47 | 7/1/48 |
|  | $43^{\circ} 25^{\prime}$ | $124^{\circ} 15^{\prime}$ | 10 | 7/1/48 | 9/1/51 |
|  | $43^{\circ} 25^{\prime}$ | $124^{\circ} 15^{\prime}$ | 10 | 10/1/51 | 12/1/56 |
|  | $43^{\circ} 25^{\prime}$ | $124{ }^{\circ} 15^{\prime}$ | 10 | 1/1/57 | 12/1/58 |
|  | $43^{\circ} 25^{\prime}$ | $124^{\circ} 15^{\prime}$ | 10 | 1/1/59 | present |

## Monthly Means and Extremes

North Bend, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 51.8 | 54.2 | 54.7 | 56.2 | 60.1 | 63.8 | 66.2 | 67.1 | 66.8 | 62.9 | 56.8 | 52.4 | 59.4 |
| Minimum | 39.0 | 40.5 | 41.1 | 42.4 | 46.5 | 50.7 | 52.5 | 53.0 | 50.5 | 46.7 | 43.2 | 39.7 | 45.5 |
| Mean | 45.4 | 47.3 | 48.0 | 49.3 | 53.4 | 57.3 | 59.4 | 60.1 | 58.7 | 54.9 | 50.1 | 46.1 | 52.5 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 69 | 76 | 78 | 87 | 84 | 86 | 88 | 91 | 95 | 86 | 75 | 70 | 95 |
| Minimum | 17 | 14 | 27 | 28 | 36 | 39 | 41 | 44 | 34 | 28 | 22 | 15 | 14 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 9.73 | 7.76 | 7.83 | 4.65 | 2.89 | 1.63 | . 47 | . 97 | 1.81 | 4.58 | 10.31 | 10.93 | 63.56 |
| Extreme 24 hr . | 3.37 | 4.23 | 2.86 | 2.65 | 2.13 | 2.72 | 1.29 | 1.51 | 2.05 | 3.63 | 3.51 | 5.60 | 5.60 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  |  |  |  | . 1 | . 1 |  |  |  | . 2 |
| Maximum $32^{\circ}$ or less | . 1 | . 1 |  |  |  |  |  |  |  |  |  | . 1 | . 3 |
| Minimum $32^{\circ}$ or less | 5.6 | 2.9 | 1.3 | . 2 |  |  |  |  |  | . 2 | 1.4 | 4.4 | 16.0 |
| Minimum $0^{\circ}$ or less |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 18.8 | 17.1 | 19.6 | 16.1 | 12.3 | 8.7 | 4.4 | 5.5 | 7.2 | 12.1 | 19.7 | 19.5 | 161.0 |
| . 10 inches or more | 15.1 | 12.9 | 14.5 | 10.5 | 6.9 | 4.1 | 1.4 | 2.3 | 4.1 | 7.8 | 16.0 | 15.6 | 111.2 |
| . 50 inches or more | 6.7 | 5.3 | 5.6 | 2.9 | 1.9 | . 9 | . 1 | . 5 | 1.1 | 3.3 | 7.7 | 7.1 | 43.1 |
| 1.00 inches or more | 2.8 | 2.2 | 1.9 | . 7 | . 3 | . 2 |  | . 2 | . 3 | 1.2 | 2.9 | 3.3 | 16.0 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days © $65^{\circ} \mathrm{F}$ | 607 | 501 | 527 | 466 | 359 | 232 | 173 | 154 | 192 | 316 | 448 | 579 | 4556 |
| Growing days © $50^{\circ} \mathrm{F}$ | 19 | 28 | 29 | 37 | 113 | 218 | 292 | 312 | 261 | 158 | 59 | 25 | 1550 |

Total Monthly Precipitation (in inches)
North Bend, Oregon

|  | Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1961 | 7.51 | 15.26 | 13.28 | 4.47 | 5.74 | . 52 | . 17 | . 63 | . 69 | 5.93 | 10.68 | 6.30 | 71.18 |
|  | 1962 | 2.41 | 8.24 | 9.05 | 2.55 | 2.00 | . 65 | . 09 | . 57 | 1.38 | 6.54 | 7.36 | 4.10 | 44.94 |
|  | 1963 | 3.47 | 6.84 | 7.33 | 9.26 | 5.26 | 1.64 | . 71 | . 05 | 1.53 | 3.92 | 11.66 | 4.92 | 56.59 |
|  | 1964 | 12.75 | 2.63 | 6.97 | 3.10 | . 91 | 1.91 | . 88 | . 70 | . 81 | 1.54 | 12.88 | 17.77 | 62.85 |
|  | 1965 | 13.39 | 3.25 | 1.65 | 4.94 | 1.77 | . 84 | . 10 | . 50 | . 05 | 2.73 | 13.48 | 14.39 | 57.09 |
|  | 1966 | 12.74 | 5.64 | 11.14 | 1.67 | . 72 | . 47 | 1.09 | . 15 | 2.08 | 2.55 | 11.00 | 10.33 | 59.58 |
|  | 1967 | 13.47 | 5.50 | 9.69 | 6.08 | 1.84 | . 48 | . 00 | . 01 | 1.34 | 5.12 | 5.77 | 10.79 | 60.09 |
|  | 1968 | 11.77 | 6.33 | 5.73 | 2.06 | 2.67 | 1.78 | . 13 | 5.49 | 2.44 | 7.13 | 10.38 | 18.56 | 74.47 |
|  | 1969 | 16.87 | 7.06 | 2.86 | 3.43 | 1.66 | 3.34 | . 11 | . 01 | 3.03 | 4.90 | 5.28 | 14.37 | 62.92 |
|  | 1970 | 20.23 | 8.34 | 2.61 | 5.78 | 3.05 | . 73 | . 02 | . 04 | 1.43 | 4.22 | 8.10 | 11.98 | 66.53 |
|  | 1971 | 13.57 | 6.15 | 9.70 | 8.06 | 1.84 | 3.00 | . 08 | 2.72 | 5.36 | 4.50 | 9.50 | 15.00 | 79.48 |
|  | 1972 | 9.90 | 6.92 | 10.61 | 7.73 | 1.13 | . 87 | . 14 | 1.10 | 1.82 | 1.14 | 5.85 | 11.91 | 59.12 |
|  | 1973 | 7.92 | 3.84 | 7.72 | 1.91 | 1.65 | 1.43 | . 00 | . 38 | 3.32 | 3.12 | 22.69 | 16.10 | 70.08 |
| * | 1974 | 11.63 | 10.33 | 12.58 | 2.91 | 2.07 | . 56 | . 92 | . 00 | . 17 | 1.24 | 8.67 | 11.76 | 62.84 |
| $\omega$ | 1975 | 8.22 | 9.75 | 8.12 | 6.16 | 2.92 | . 47 | . 07 | 1.89 | . 00 | 9.22 | 10.72 | 6.80 | 64.34 |
|  | 1976 | 6.73 | 7.39 | 5.84 | 2.88 | . 76 | . 29 | . 79 | 2.12 | . 76 | 1.61 | 2.55 | 1.80 | 33.52 |
|  | 1977 | 1.85 | 4.65 | 8.26 | 1.28 | 4.51 | . 69 | . 04 | 2.13 | 3.38 | 3.55 | 11.30 | 12.60 | 54.24 |
|  | 1978 | 12.89 | 7.55 | 2.37 | 10.49 | 3.96 | 1.49 | . 37 | 1.97 | 3.53 | . 40 | 5.27 | 4.40 | 54.69 |
|  | 1979 | 3.92 | 13.17 | 4.76 | 5.18 | 4.51 | . 84 | . 62 | . 88 | 2.80 | 6.77 | 8.15 | 13.10 | 64.70 |
|  | 1980 | 5.62 | 5.59 | 6.35 | 7.12 | 2.04 | 2.16 | . 41 | . 14 | . 79 | 2.89 | 5.71 | 12.95 | 51.77 |
|  | 1981 | 5.16 | 6.60 | 7.08 | 2.53 | 4.70 | 2.79 | . 16 | . 32 | 3.57 | 9.04 | 12.10 | 20.25 | 74.30 |
|  | 1982 | 13.89 | 8.04 | 9.37 | 9.59 | . 38 | 1.94 | . 68 | . 19 | 2.32 | 5.55 | 9.58 | 15.34 | 76.87 |
|  | 1983 | 12.59 | 15.84 | 13.97 | 4.56 | 2.74 | 2.48 | 2.79 | 2.63 | . 88 | 3.17 | 17.51 | 14.38 | 93.54 |
|  | 1984 | 3.34 | 12.07 | 8.65 | 6.80 | 5.16 | 4.01 | . 10 | . 20 | 1.08 | 11.13 | 21.56 | 6.17 | 80.27 |
|  | 1985 | . 99 | 6.90 | 7.44 | 1.85 | 1.85 | 4.80 | . 17 | . 19 | 2.34 | 7.38 | 7.60 | 5.04 | 46.55 |
|  | 1986 | 10.83 | 16.26 | 7.38 | 4.53 | 5.79 | . 75 | . 95 | . 09 | 4.60 | 3.35 | 13.22 | 5.49 | 73.24 |
|  | 1987 | 12.89 | 8.86 | 10.97 | 2.92 | 1.64 | . 12 | . 41 | . 45 | . 08 | . 36 | 6.58 | 20.76 | 66.04 |
|  | 1988 | 13.93 | 2.32 | 4.76 | 3.69 | 5.30 | 2.47 | . 49 | . 01 | 1.88 | . 50 | 18.25 | 9.10 | 62.70 |
|  | 1989 | 9.97 | 3.76 | 13.86 | 2.63 | 3.78 | 1.61 | . 69 | 1.40 | . 42 | 5.68 | 4.83 | 1.70 | 50.33 |
|  | 1990 | 11.50 | 7.73 | 4.08 | 3.36 | 4.37 | 2.75 | . 45 | 1.88 | . 02 | 12.46 | 9.90 | . 71 | 59.21 |
|  | Mean | 9.73 | 7.76 | 7.81 | 4.65 | 2.89 | 1.60 | . 45 | . 96 | 1.80 | 4.59 | 10.27 | 10.97 | 63.27 |
|  | Maximum | 20.23 | 16.26 | 13.97 | 10.49 | 5.79 | 4.80 | 2.79 | 5.49 | 5.36 | 12.46 | 22.69 | 20.76 | 93.54 |
|  | Minimum | . 99 | 2.32 | 1.65 | 1.28 | . 38 | . 12 | . 00 | . 00 | . 00 | . 36 | 2.55 | 1.70 | 33.52 |
|  | StdDev | 4.77 | 3.69 | 3.38 | 2.55 | 1.66 | 1.19 | . 55 | 1.21 | 1.42 | 3.13 | 4.82 | 5.43 | 12.26 |

## Dates of Spring and Fall Low Temperatures North Bend, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | *** | 2-Jan | 3-Jan | 7-Apr | *** | 16-Nov | 15-Nov | 29-Oct |
| 1962 | 27-Feb | 27-Feb | 12-Mar | 11-Apr | *** | 25-Dec | 24-Dec | 23-Nov |
| 1963 | 27-Jan | 27-Jan | 27-Jan | 20-Apr | *** | *** | 27-Oct | 19-Oct |
| 1964 | *** | 27-Feb | 27-Feb | 18-Apr | *** | 14-Nov | 14-Nov | 13-Nov |
| 1965 | *** | 19-Mar | 20-Mar | 6-Apr | *** | 14-Deć | 14-Dec | 13-Dec |
| 1966 | 20-Jan | 16-Feb | 22-Mar | 17-May | *** | *** | *** | 18-Oct |
| 1967 | *** | *** | 12-Mar | 28-Apr | *** | 13-Dec | 26-Nov | 21-Nov |
| 1968 | *** | 13-Apr | 13-Apr | 21-Apr | *** | *** | 19-Dec | 15-Nov |
| 1969 | *** | 28-Jan | 13-Mar | 7-Apr | *** | *** | 5-Dec | 11-Oct |
| 1970 | *** | *** | 3-Apr | 27-Apr | *** | *** | 18-Dec | 13-Sep |
| 1971 | 2-Jan | 6-Jan | 12-Jan | 3-Apr | *** | 29-Oct | 28-Oct | 16-Oct |
| 1972 | *** | 30-Jan | 2-Feb | 30-Apr | 5-Dec | 5-Dec | 30-Oct | 27-Sep |
| 1973 | *** | 26-Jan | 26-Jan | 7-Apr | *** | *** | *** | *** |
| 1974 | 10-Jan | 11-Jan | 8-Mar | 8-Mar | *** | *** | 23-Dec | 6-Oct |
| 1975 | 30-Jan | 21-Feb | 5-Apr | 28-Apr | *** | *** | 18-Nov | 16-Nov |
| 1976 | *** | 5-Mar | 2-Apr | 26-Apr | *** | 24-Dec | 26-Nov | 23-Oct |
| 1977 | *** | 29-Jan | 17-Apr | 19-Apr | *** | *** | 8-Nov | 3-Nov |
| 1978 | *** | 26-Jan | 11-Feb | 7-Apr | 13-Nov | 10-Nov | 30-Oct | 22-Oct |
| 1979 | 1-Feb | 2-Feb | 3-Feb | 1-Mar | *** | *** | 11-Dec | 26-Nov |
| 1980 | 29-Jan | 30-Jan | 30-Jan | 7-Apr | *** | *** | 6-Dec | 22-Oct |
| 1981 | *** | *** | 6-Mar | 13-Apr | *** | *** | 28-Nov | 25-Nov |
| 1982 | *** | 10-Feb | 23-Feb | 29-Apr | *** | *** | 10-Nov | 7-Nov |
| 1983 | *** | *** | 12-Apr | 13-Apr | 22-Dec | 21-Dec | 21-Dec | 8-Nov |
| 1984 | *** | 17-Jan | 17-Jan | 3-Mar | *** | *** | 18-Dec | 21-Nov |
| 1985 | *** | *** | 7-Mar | 12-May | *** | 11-Nov | 10-Nov | 8 -Oct |
| 1986 | *** | *** | 9-Feb | 24-Apr | *** | *** | 30-Nov | 11-Nov |
| 1987 | *** | 25-Feb | 28-Mar | 28-Mar | *** | 13-Dec | 28-Nov | 16-Oct |
| 1988 | *** | 4-Feb | 8-Apr | $9-\mathrm{Apr}$ | *** | 15-Dec | 29-Nov | 29-Nov |
| 1989 | 8-Feb | 8 -Feb | 3-Mar | 23-Mar | *** | 19-Dec | 11-Dec | 15-Oct |
| 1990 | *** | 18-Feb | 19-Feb | 13-Mar | 19-Dec | 19-Dec | 19-Dec | 7-Oct |

Probabilities

| 10\% | *** | *** | 25-Jan | 12-Mar | 21-Dec | 13-Nov | 30-Oct | 6-Oct |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20\% | *** | *** | 1-Feb | 1-Apr | *** | 11-Dec | 10-Nov | 14-Oct |
| Median (50\%) | *** | 29-Jan | 6-Mar | 12-Apr | *** | 28-Dec | 29-Nov | 31-Oct |
| 80\% | 21-Jan | 21-Feb | 2-Apr | 27-Apr | *** | *** | 19-Dec | 21-Nov |
| 90\% | 30-Jan | 27-Feb | 8-Apr | 29-Apr | *** | *** | 23-Dec | 26-Nov |

[^1]
## North Wilamette Experiment Station, Oregon

| Latitude: | $45^{\circ} 17^{\prime}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Longitude: | $122^{\circ} 45^{\prime}$ |  |  |  |  |
| Elevation: | 150 ft . |  |  |  |  |
| County: | Clackamas |  |  |  |  |
| Station Number: | 356151 |  |  |  |  |
| Agency: | Oregon State Agricultural Experiment Station |  |  |  |  |
| Station History: | \%aturee | \%emginee | Elevalion | Starivatem | EndWame |
|  | $45^{\circ} 17$ | $122^{\circ} 45^{\prime}$ | 150 | 1/1/63 | 2/1/78 |
|  | $45^{\circ} 17^{\prime}$ | $122^{\circ} 45{ }^{\prime}$ | 150 | 2/1/78 | present |

## Monthly Means and Extremes

North Willamette Exp. Stn., Aurora, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 46.0 | 51.0 | 55.5 | 59.9 | 66.7 | 73.2 | 79.7 | 80.2 | 74.6 | 64.0 | 52.8 | 46.1 | 62.5 |
| Minimum | 32.4 | 34.3 | 36.6 | 39.4 | 44.2 | 49.7 | 52.5 | 52.3 | 48.5 | 41.4 | 37.4 | 33.1 | 41.8 |
| Mean | 39.2 | 42.7 | 46.0 | 49.7 | 55.4 | 61.5 | 66.1 | 66.2 | 61.6 | 52.8 | 45.2 | 39.6 | 52.2 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 63 | 72 | 76 | 86 | 101 | 100 | 103 | 105 | 105 | 95 | 72 | 65 | 105 |
| Minimum | 8 | 8 | 20 | 26 | 29 | 34 | 41 | 37 | 30 | 25 | 14 | 0 | 0 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 6.17 | 4.39 | 3.99 | 2.64 | 2.17 | 1.73 | . 70 | . 94 | 1.84 | 3.11 | 6.03 | 7.09 | 40.80 |
| Extreme 24 hr . | 2.01 | 2.10 | 1.97 | 1.58 | 1.71 | 1.59 | 1.76 | 1.40 | 1.53 | 1.40 | 2.85 | 2.30 | 2.85 |
| Evaporation in inches | . 89 | 1.34 | 2.30 | 3.39 | 5.11 | 5.95 | 7.58 | 6.82 | 4.77 | 2.46 | 1.11 | . 77 | 42.49 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 5 | 1.5 | 4.6 | 4.9 | 1.9 | . 2 |  |  | 13.6 |
| Maximum $32^{\circ}$ or less | 1.2 |  |  |  |  |  |  |  |  |  | . 1 | 1.3 | 2.8 |
| Minimum $32^{\circ}$ or less | 15.6 | 11.6 | 7.9 | 3.3 | . 3 |  |  |  | . 1 | 2.1 | 7.6 | 13.6 | 62.2 |
| Minimum $0^{\circ}$ or less |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 18.6 | 15.8 | 17.8 | 15.4 | 11.4 | 8.4 | 3.9 | 4.5 | 7.5 | 13.3 | 19.3 | 20.0 | 156.0 |
| . 10 inches or more | 13.4 | 10.6 | 11.5 | 8.6 | 6.2 | 4.7 | 1.9 | 2.3 | 4.7 | 8.0 | 13.2 | 13.6 | 98.7 |
| . 50 inches or more | 4.0 | 2.8 | 1.9 | . 9 | . 7 | . 8 | . 3 | . 5 | 1.0 | 2.0 | 4.1 | 5.2 | 24.1 |
| 1.00 inches or more | 1.2 | . 5 | . 3 | . 1 | . 2 | . 2 | . 1 | . 1 | . 3 | . 4 | 1.0 | 1.5 | 5.7 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 793 | 627 | 582 | 460 | 307 | 143 | 51 | 49 | 134 | 381 | 589 | 777 | 4893 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 3 | 7 | 19 | 64 | 182 | 341 | 495 | 499 | 346 | 118 | 17 | 3 | 2094 |

Total Monthly Precipitation (in inches)
North Willamette Exp. Stn., Aurora, Oregon

|  | Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1961 | M | M | M | M | M | M | M | M | M | M | M | M | M |
|  | 1962 | M | M | M | M | M | M | M | M | M | M | M | M | M |
|  | 1963 | 1.14 | 4.02 | 6.48 | . 00 | 4.34 | 1.62 | . 81 | . 36 | 1.11 | 3.09 | 5.86 | 4.45 | 33.28 |
|  | 1964 | 11.36 | . 83 | 2.93 | 1.21 | . 94 | 1.67 | . 74 | . 58 | 1.49 | 1.52 | 7.21 | 13.84 | 44.32 |
|  | 1965 | 8.51 | 2.07 | 1.09 | 3.23 | 1.30 | . 66 | . 23 | . 99 | . 05 | 2.79 | 6.63 | 6.78 | 34.33 |
|  | 1966 | 7.84 | 1.92 | 5.96 | 1.22 | . 93 | 1.18 | 1.16 | . 31 | 1.41 | 2.97 | 5.62 | 6.57 | 37.09 |
|  | 1967 | 6.77 | 1.53 | 4.79 | 2.58 | 2.12 | . 72 | . 00 | . 00 | . 26 | 5.58 | 2.04 | 5.65 | 32.04 |
|  | 1968 | 4.68 | 8.20 | 3.06 | 2.04 | 2.99 | 2.34 | . 98 | 4.17 | 2.75 | 6.88 | 7.02 | 12.46 | 57.57 |
|  | 1969 | 7.41 | 3.03 | 1.45 | 2.99 | 1.76 | 3.20 | . 11 | . 08 | 3.42 | 4.69 | 2.94 | 8.53 | 39.61 |
|  | 1970 | 11.72 | 5.12 | 2.30 | 2.36 | 1.30 | . 31 | . 07 | . 00 | 1.38 | 3.49 | 6.94 | 8.92 | 43.91 |
|  | 1971 | 7.59 | 3.49 | 5.59 | 3.71 | 1.77 | 2.92 | . 08 | . 43 | 3.51 | 3.69 | 6.49 | 8.02 | 47.29 |
|  | 1972 | 6.59 | 4.78 | 5.77 | 3.61 | 2.65 | . 60 | . 47 | . 65 | 3.50 | . 87 | 5.07 | 8.81 | 43.37 |
|  | 1973 | 4.45 | 1.96 | 2.67 | 1.28 | 1.56 | 1.47 | . 01 | . 82 | 2.58 | 2.94 | 13.04 | 10.02 | 42.80 |
|  | 1974 | 8.24 | 5.48 | 6.28 | 2.23 | 1.98 | . 96 | 2.31 | . 02 | . 26 | 1.62 | 6.56 | 6.53 | 42.47 |
| * | 1975 | 6.84 | 4.24 | 2.22 | 2.46 | 1.86 | 1.27 | . 65 | 2.53 | . 00 | 5.61 | 4.37 | 6.66 | 38.71 |
| $v$ | 1976 | 6.32 | 6.68 | 2.82 | 3.00 | 1.48 | . 57 | . 95 | 2.41 | 1.18 | . 85 | 1.67 | 1.48 | 29.41 |
|  | 1977 | 1.37 | 2.80 | 4.26 | . 64 | 3.82 | 1.54 | . 83 | 2.69 | 3.23 | 2.45 | 6.61 | 10.52 | 40.76 |
|  | 1978 | 5.35 | 3.59 | 1.69 | 3.50 | 4.52 | 1.69 | . 90 | 2.08 | 2.74 | . 37 | 4.92 | 3.54 | 34.89 |
|  | 1979 | 3.45 | 7.36 | 3.22 | 3.35 | 2.36 | . 47 | . 82 | . 82 | 3.25 | 5.35 | 3.77 | 6.75 | 40.97 |
|  | 1980 | 9.99 | 4.68 | 3.59 | 4.07 | 1.23 | 2.52 | . 14 | . 49 | 1.69 | 1.67 | 6.87 | 11.90 | 48.84 |
|  | 1981 | 2.01 | 4.11 | 3.48 | 2.29 | 2.23 | 4.27 | . 19 | . 03 | 2.68 | 4.14 | 5.39 | 10.27 | 41.09 |
|  | 1982 | 6.24 | 6.94 | 3.12 | 4.78 | . 89 | . 86 | . 34 | . 99 | 3.61 | 3.74 | 5.04 | 8.92 | 45.47 |
|  | 1983 | 7.57 | 9.54 | 7.18 | 2.77 | 2.13 | 2.60 | 2.68 | 2.52 | . 86 | 2.25 | 9.04 | 6.33 | 55.47 |
|  | 1984 | 3.05 | 4.69 | 4.46 | 4.09 | 4.59 | 5.35 | . 00 | . 03 | 1.99 | 5.78 | 12.90 | 3.68 | 50.61 |
|  | 1985 | . 45 | 3.49 | 4.54 | 1.42 | . 97 | 2.48 | . 45 | . 79 | 1.93 | 3.17 | 5.00 | 2.46 | 27.15 |
|  | 1986 | 5.83 | 7.65 | 2.95 | 2.09 | 2.74 | . 38 | 1.28 | . 04 | 2.93 | 2.81 | 6.71 | 4.13 | 39.54 |
|  | 1987 | 6.75 | 4.94 | 5.55 | 2.19 | 1.66 | . 30 | 2.00 | . 10 | . 53 | . 23 | 2.40 | 10.55 | 37.20 |
|  | 1988 | 7.88 | 1.71 | 3.73 | 4.63 | 2.56 | 2.55 | . 21 | . 03 | 1.25 | . 20 | 9.88 | 3.28 | 37.91 |
|  | 1989 | 4.24 | 3.16 | 7.02 | 1.24 | 2.27 | . 91 | . 52 | 1.37 | 1.34 | 2.15 | 3.72 | 4.15 | 32.09 |
|  | 1990 | 8.98 | 4.97 | 3.42 | 2.22 | 1.71 | 2.94 | . 54 | 1.09 | . 50 | 6.18 | 5.00 | 3.39 | 40.94 |
|  | Mean | 6.16 | 4.39 | 3.99 | 2.64 | 2.17 | 1.73 | . 70 | . 94 | 1.84 | 3.11 | 6.03 | 7.09 | 40.96 |
|  | Maximum | 11.72 | 9.54 | 7.18 | 4.78 | 4.59 | 5.35 | 2.68 | 4.17 | 3.61 | 6.88 | 13.04 | 13.84 | 57.57 |
|  | Minimum | . 45 | . 83 | 1.09 | . 64 | . 89 | . 30 | . 00 | . 00 | . 00 | . 20 | 1.67 | 1.48 | 27.15 |
|  | StdDev | 2.90 | 2.18 | 1.71 | 1.10 | 1.06 | 1.25 | . 69 | 1.07 | 1.18 | 1.89 | 2.74 | 3.25 | 7.19 |

Dates of Spring and Fall Low Temperatures
N. Willamette Exp Stn, Aurora, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1963 | 1-Feb | 18-Mar | 18-Mar | 13-May | 1-Dec | 20-Nov | 19-Oct | 18-Oct |
| 1964 | 26-Feb | 17-Apr | 3-May | 25-May | 19-Nov | 15-Nov | 21-Oct | 17-Oct |
| 1965 | ** | 3-Apr | 8-May | 28-Jun | 18-Dec | 29-Nov | 26-Nov | 17-Sep |
| 1966 | 15-Feb | 22-Mar | 22-Mar | 1-Jun | *** | 18-Oct | 13-Oct | 9-Oct |
| 1967 | *** | 19-Apr | 29-Apr | 25-May | 13-Dec | 26-Nov | 23-Nov | 15-Oct |
| 1968 | 15-Feb | 13-Apr | 24-Apr | 28-Apr | 4-Nov | 4-Nov | 31-Oct | 9-Oct |
| 1969 | 30-Jan | 14-Mar | $30-\mathrm{Apr}$ | 4-May | 29-Nov | 27-Nov | 18-Oct | 4-Oct |
| 1970 | *** | 31-Mar | 15-Apr | 19-May | 23-Nov | 28-Oct | 24-Sep | 13-Sep |
| 1971 | 2-Mar | 17-Mar | 12-Apr | 21-May | 28-Dec | 28-Oct | 16-Oct | 30-Sep |
| 1972 | 4-Feb | 29-Mar | 22-Apr | 25-May | 4-Dec | 27-Nov | 27-Sep | 26-Sep |
| 1973 | 27-Jan | 19-Feb | 29-Apr | 1-Jun | *** | 3-Nov | 2-Nov | 1-Sep |
| 1974 | 8-Mar | 9-Mar | 24-Mar | 17-May | *** | 23-Dec | 5-Oct | 3-Oct |
| 1975 | 30-Jan | 6-Apr | 20-May | 25-May | *** | 12-Nov | 8 -Nov | 31-Oct |
| 1976 | 8 -Feb | 12-Mar | 23-Apr | 26-Jun | 26-Nov | 13-Nov | 19-Oct | 16-Oct |
| 1977 | 3-Feb | 17-Apr | 12-May | 12-May | *** | 8 -Nov | 4-Nov | 17-Oct |
| 1978 | *** | 12-Feb | 5-May | 23-May | 12-Nov | 11-Nov | 22-Oct | 21-Oct |
| 1979 | 3-Feb | $3-\mathrm{Feb}$ | 21-Mar | 29-May | *** | 14-Nov | 8-Nov | 1-Nov |
| 1980 | 31-Jan | 13-Feb | 7-Apr | 16-May | 8 -Dec | 13-Nov | 23-Oct | 16-Oct |
| 1981 | *** | 16-Mar | 19-Mar | 11-May | *** | 28-Nov | 13-Oct | 12-Oct |
| 1982 | 11-Feb | 11-Feb | 29-Apr | 19-May | 30-Dec | 9-Nov | 19-Oct | 19-Oct |
| 1983 | *** | 4-Feb | 14-Apr | 25-Apr | 20-Dec | 20-Dec | 16-Oct | 1-Oct |
| 1984 | 20-Jan | 2-Feb | 27-Apr | 7-May | 6-Dec | 6-Dec | 17-Nov | 16-Oct |
| 1985 | 5-Feb | 14-Mar | 12-May | 12-May | 13-Nov | 11-Nov | 9-Oct | 8-Oct |
| 1986 | *** | 10-Feb | 24-Apr | 14-May | *** | 3-Dec | 10-Nov | $13-\mathrm{Oct}$ |
| 1987 | 21-Jan | 25-Feb | 30-Mar | 20-Apr | 26-Dec | 29-Nov | 18-Nov | 13-Oct |
| 1988 | 3-Feb | 12-Mar | 8-Apr | 1-May | 18-Dec | 4-Dec | 30-Nov | 18-Sep |
| 1989 | 3-Mar | 4-Mar | 3-Apr | 13-May | *** | 2-Nov | 29-Oct | 3-Oct |
| 1990 | 15-Feb | 13-Mar | 9-Apr | 8-May | 19-Dec | 19-Dec | 7-Oct | 7-Oct |

Probabilities

| $10 \%$ | 27-Jan | 8-Feb | 21-Mar | 30-Apr | 12-Nov | 31-Oct | 6-Oct | 17-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 \%$ | 30-Jan | 12-Feb | 31-Mar | 7-May | 21-Nov | 5-Nov | 13-Oct | 30-Sep |
| Median (50\%) | 4-Feb | 13-Mar | 22-Apr | 16-May | 6-Dec | 14-Nov | 21-Oct | 10-Oct |
| $80 \%$ | 15-Feb | 1-Apr | 1-May | 25-May | 19-Dec | 1-Dec | 9-Nov | 17-Oct |
| $90 \%$ | 2-Mar | 14-Apr | 9-May | 1-Jun | 26-Dec | 9-Dec | 19-Nov | 19-Oct |

Did not occur

## Temaleions Oregon

Latitude: $\quad 45^{\circ} 40^{\prime}$

Longitude: $\quad 118^{\circ} 51^{\prime}$

Elevation: $\quad 1490 \mathrm{ft}$.

County: Umatilla

Station Number: 356546

Agency: National Weather Service

Station History:

|  | \%orgMacie | Eievatiors | Sharsmate\% | Erambame |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 40^{\prime}$ | $118{ }^{\circ} 43^{\prime}$ | 1200 | 1/1/28 | 2/2/34 |
| $45^{\circ} 40^{\prime}$ | $118^{\circ} 51^{\prime}$ | 1492 | 6/2/34 | 4/2/35 |
| $45^{\circ} 40^{\prime}$ | $118^{\circ} 51^{\prime}$ | 1489 | 4/2/35 | 1/1/48 |
| $45^{\circ} 40$ | $118^{\circ} 51^{\prime}$ | 1490 | 1/1/48 | 9/1/51 |
| $45^{\circ} 40^{\prime}$ | $118^{\circ} 51$ | 1490 | 10/1/51 | 5/1/52 |
| $45^{\circ} 40^{\prime}$ | $118^{\circ} 51^{\prime}$ | 1490 | 5/1/52 | 2/1/56 |
| $45^{\circ} 40^{\prime}$ | $118^{\circ} 51^{\prime}$ | 1490 | 1/1/57 | 10/1/60 |
| $45^{\circ} 40^{\prime}$ | $118{ }^{\circ} 51^{\prime}$ | 1480 | 10/1/60 | 10/1/70 |
| $45^{\circ} 40^{\prime}$ | $118{ }^{\circ} 51^{\prime}$ | 1490 | 10/1/70 | present |

Monthly Means and Extremes
Pendleton, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 39.7 | 46.9 | 54.2 | 61.3 | 70.0 | 79.5 | 87.8 | 86.2 | 76.3 | 63.8 | 48.9 | 40.5 | 62.9 |
| Minimum | 27.2 | 31.6 | 35.1 | 39.4 | 45.8 | 52.9 | 58.0 | 57.6 | 49.9 | 41.0 | 34.1 | 27.9 | 41.7 |
| Mean | 33.5 | 39.3 | 44.8 | 50.4 | 58.0 | 66.2 | 72.9 | 72.0 | 63.1 | 52.4 | 41.5 | 34.2 | 52.4 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 68 | 72 | 79 | 91 | 100 | 108 | 108 | 113 | 98 | 92 | 77 | 67 | 113 |
| Minimum | -12 | -13 | 11 | 23 | 30 | 36 | 42 | 40 | 30 | 19 | -12 | -19 | -19 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.51 | 1.14 | 1.16 | 1.04 | . 99 | . 64 | . 35 | . 53 | . 59 | . 86 | 1.58 | 1.63 | 12.02 |
| Extreme 24 hr . | 1.10 | . 57 | 1.00 | 1.24 | 1.05 | . 65 | . 88 | 1.05 | 1.10 | 1.40 | 1.35 | 1.25 | 1.40 |
| Evaporation in inches |  |  | 3.34 | 5.05 | 6.82 | 8.68 | 11.46 | 10.22 | 6.55 | 3.61 |  |  | 55.73 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 8 | 5.3 | 14.4 | 11.7 | 2.6 | . 1 |  |  | 34.8 |
| Maximum $32^{\circ}$ or less | 8.6 | 2.7 | . 2 |  |  |  |  |  |  |  | 2.1 | 8.1 | 21.6 |
| Minimum $32^{\circ}$ or less | 20.1 | 14.6 | 8.8 | 3.2 | . 1 |  |  |  | . 2 | 3.1 | 10.8 | 19.7 | 80.5 |
| Minimum $0^{\circ}$ or less | 1.4 | .4 |  |  |  |  |  |  |  |  | . 1 | 1.2 | 3.1 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 12.0 | 10.9 | 10.6 | 8.7 | 7.2 | 5.8 | 2.9 | 3.6 | 4.7 | 6.1 | 11.7 | 12.2 | 96.3 |
| . 10 inches or more | 5.0 | 4.0 | 4.3 | 3.2 | 3.1 | 2.2 | 1.0 | 1.4 | 1.9 | 3.0 | 4.9 | 5.5 | 39.5 |
| . 50 inches or more | . 4 | . 1 | . 2 | . 3 | . 3 | . 1 | . 1 | . 3 | 1 | . 2 | . 6 | . 5 | 3.3 |
| 1.00 inches or more |  |  | . 1 | . 1 |  |  |  |  |  | . 1 |  |  | . 3 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ 65 ${ }^{\circ} \mathrm{F}$ | 977 | 728 | 626 | 441 | 241 | 71 | 12 | 14 | 119 | 395 | 706 | 954 | 5283 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 4 | 6 | 17 | 78 | 254 | 486 | 709 | 681 | 395 | 126 | 13 | 4 | 2773 |

Total Monthly Precipitation (in inches)
Pendleton, Oregon

|  | Year | Jan | Feb | Mar | Apr | Mar | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1961 | . 47 | 2.46 | 2.25 | 1.30 | . 94 | . 28 | . 08 | . 09 | . 17 | . 70 | 1.46 | 1.27 | 11.47 |
|  | 1962 | . 70 | . 72 | 1.14 | . 76 | 3.02 | . 15 | . 00 | . 43 | . 79 | 1.62 | 1.38 | 1.46 | 12.17 |
|  | 1963 | 1.40 | 1.67 | . 37 | 1.86 | . 65 | . 21 | . 32 | . 30 | . 70 | . 44 | 2.03 | 1.29 | 11.24 |
|  | 1964 | 1.07 | . 07 | . 66 | . 34 | . 03 | 1.01 | . 64 | . 21 | . 15 | . 80 | 1.93 | 3.23 | 10.14 |
|  | 1965 | 3.08 | . 37 | . 29 | . 65 | . 57 | 1.10 | . 51 | 1.21 | . 23 | . 19 | 1.95 | . 27 | 10.42 |
|  | 1966 | 2.19 | . 83 | . 96 | . 08 | . 07 | . 55 | . 79 | . 17 | . 43 | . 75 | 2.09 | 2.65 | 11.56 |
|  | 1967 | 1.59 | . 15 | . 89 | 1.05 | . 56 | . 41 | . 00 | . 00 | . 40 | . 64 | . 63 | . 45 | 6.77 |
|  | 1968 | . 59 | 1.82 | . 47 | . 17 | . 66 | . 89 | . 17 | . 61 | . 57 | 1.03 | 2.06 | 2.19 | 11.23 |
|  | 1969 | 2.88 | . 88 | . 57 | 2.05 | 1.40 | . 86 | . 02 | . 00 | . 42 | 1.13 | . 36 | 1.88 | 12.45 |
|  | 1970 | 3.92 | 1.48 | . 99 | . 63 | . 32 | . 57 | . 08 | . 03 | . 78 | . 81 | 1.78 | . 80 | 12.19 |
|  | 1971 | . 84 | . 69 | 1.11 | 1.15 | 1.41 | 1.73 | . 32 | . 14 | 1.03 | . 70 | 2.73 | 2.59 | 14.44 |
|  | 1972 | . 96 | 1.08 | 1.47 | . 68 | 1.97 | . 80 | . 58 | . 36 | . 16 | . 58 | . 70 | 2.31 | 11.65 |
|  | 1973 | . 50 | 1.09 | . 43 | . 27 | . 67 | . 15 | . 01 | . 08 | 1.34 | 1.71 | 3.76 | 4.68 | 14.69 |
| 0 | 1974 | . 79 | 1.57 | . 81 | 2.13 | . 26 | . 19 | . 90 | . 00 | . 00 | . 29 | 1.00 | 1.59 | 9.53 |
| $\sim$ | 1975 | 3.53 | 1.30 | . 65 | . 97 | . 30 | . 28 | . 73 | . 67 | . 00 | 1.80 | . 84 | 1.98 | 13.05 |
|  | 1976 | 1.77 | 1.00 | 1.65 | 1.09 | . 92 | . 33 | . 16 | 1.77 | . 18 | . 54 | . 19 | . 44 | 10.04 |
|  | 1977 | . 48 | . 64 | 1.51 | . 18 | 1.87 | . 37 | . 06 | 2.58 | 1.17 | . 51 | 2.00 | 2.42 | 13.79 |
|  | 1978 | 2.82 | 1.60 | 1.03 | 2.78 | . 63 | . 76 | . 77 | 2.21 | . 92 | . 00 | 2.37 | 1.86 | 17.75 |
|  | 1979 | 1.43 | 1.72 | 1.18 | 1.17 | . 39 | . 21 | . 09 | 1.40 | . 30 | 1.68 | 1.83 | . 62 | 12.02 |
|  | 1980 | 2.48 | 1.39 | 1.60 | . 59 | 2.14 | 1.12 | . 77 | . 03 | . 59 | 1.22 | . 84 | 1.20 | 13.97 |
|  | 1981 | . 89 | 1.35 | 1.43 | 1.20 | 1.59 | 1.53 | . 94 | . 03 | 1.31 | . 86 | 1.91 | 2.31 | 15.35 |
|  | 1982 | 1.54 | . 77 | 1.22 | . 84 | . 31 | . 63 | . 51 | . 24 | 1.47 | 2.67 | . 34 | 2.20 | 12.74 |
|  | 1983 | . 86 | 1.57 | 2.82 | . 70 | . 73 | 1.44 | . 52 | . 56 | . 46 | . 84 | 1.67 | 3.42 | 15.59 |
|  | 1984 | . 53 | 1.74 | 1.83 | 1.70 | 1.02 | 1.13 | . 06 | . 44 | . 39 | 1.02 | 2.14 | . 92 | 12.92 |
|  | 1985 | . 44 | 1.33 | 1.13 | . 37 | . 44 | . 69 | . 34 | . 26 | 2.10 | . 89 | 2.11 | 1.27 | 11.37 |
|  | 1986 | 1.66 | 2.58 | 1.13 | . 43 | 1.18 | . 03 | . 48 | . 02 | 1.28 | . 80 | 2.12 | . 82 | 12.53 |
|  | 1987 | 1.48 | . 64 | 1.39 | . 47 | . 85 | . 38 | . 34 | . 05 | . 03 | . 00 | . 76 | 1.23 | 7.62 |
|  | 1988 | 1.86 | . 12 | . 95 | 2.47 | 1.56 | . 31 | . 01 | . 00 | . 31 | . 10 | 2.16 | . 37 | 10.22 |
|  | 1989 | 1.86 | 1.36 | 1.72 | 1.57 | 1.47 | . 57 | . 09 | 1.25 | . 12 | . 84 | 1.27 | . 21 | 12.33 |
|  | 1990 | . 77 | . 28 | 1.14 | 1.54 | 1.83 | . 58 | . 18 | . 62 | . 00 | . 78 | . 87 | . 84 | 9.43 |
|  | Mean | 1.51 | 1.14 | 1.16 | 1.04 | . 99 | . 64 | . 35 | . 53 | . 59 | . 86 | 1.58 | 1.63 | 12.02 |
|  | Maximum | 3.92 | 2.58 | 2.82 | 2.78 | 3.02 | 1.73 | . 94 | 2.58 | 2.10 | 2.67 | 3.76 | 4.68 | 17.75 |
|  | Minimum | . 44 | . 07 | . 29 | . 08 | . 03 | . 03 | . 00 | . 00 | . 00 | . 00 | . 19 | . 21 | 6.77 |
|  | StdDev | . 97 | . 64 | . 56 | . 71 | . 71 | . 44 | . 31 | . 69 | . 53 | . 58 | . 80 | 1.05 | 2.31 |

Dates of Spring and Fall Low Temperatures
Pendleton, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 28-Jan | 29-Jan | 19-Apr | 20-Apr | 5-Nov | 21-Oct | 20-Oct | 24-Sep |
| 1962 | 27-Feb | 2-Mar | 4-May | 4-May | 24-Dec | 28-Nov | 15-Nov | 7-Oct |
| 1963 | 1-Feb | 2-Feb | 16-Apr | 20-Apr | 29-Nov | 28-Nov | 26-Oct | 19-Oct |
| 1964 | 24-Mar | 18-Apr | 23-Apr | 25-May | 15-Dec | 15-Nov | 6-Nov | 3-Oct |
| 1965 | 25-Mar | 7-Apr | 7-Apr | 6-May | 15-Dec | 29-Nov | 17-Sep | 16-Sep |
| 1966 | 19-Apr | 19-Apr | 19-Apr | 1-Jun | *** | 23-Dec | 14-Oct | 13-Oct |
| 1967 | 4-Mar | 12-Mar | 28-Apr | 26-May | 4-Nov | 2-Nov | 20-Oct | 20-Oct |
| 1968 | 16-Feb | 13-Apr | 5-May | 5-May | 20-Dec | 19-Dec | 28-Oct | 3-Oct |
| 1969 | 6-Feb | 24-Mar | 25-Mar | 4-May | 13-Oct | 13-Oct | 12-Oct | 5-Oct |
| 1970 | 2-Mar | 16-Apr | 11-May | 13-May | 29-Oct | 15-Oct | 13-Sep | 12-Sep |
| 1971 | 2-Mar | 1-Apr | 12-Apr | 22-Apr | 27-Oct | 16-Oct | 16-Oct | 30-Sep |
| 1972 | 6-Feb | 11-Feb | 30-Apr | 1-May | 22-Nov | 30-Oct | 29-Oct | 25-Sep |
| 1973 | 12-Feb | 8-Apr | $8-\mathrm{Apr}$ | 30-Apr | *** | 6-Nov | 8-Oct | 3-Oct |
| 1974 | 13-Jan | 20-Mar | 13-Apr | 17-May | 23-Dec | 23-Dec | 6-Oct | 5-Oct |
| 1975 | 5-Apr | 5-Apr | 6-Apr | 4-May | 18-Nov | 18-Nov | 24-Oct | 23-Oct |
| 1976 | 5-Mar | 12-Mar | 17-Apr | 26-May | 26-Nov | 23-Nov | 18-Oct | 17-Oct |
| 1977 | 26-Jan | 20-Feb | 20-Apr | 8-May | 19-Nov | 3-Nov | 27-Oct | 3-Oct |
| 1978 | 2-Mar | 5-Mar | 12-Apr | 30-May | 1-Nov | 25-Oct | 22-Oct | 13-Oct |
| 1979 | 4-Feb | 2-Mar | 10-Mar | 20-Apr | 27-Nov | 10-Nov | 1-Nov | 20-Oct |
| 1980 | 6-Mar | 2-Apr | $7-\mathrm{Apr}$ | $25-\mathrm{Apr}$ | 6-Dec | 26-Nov | 23-Oct | 10-Oct |
| 1981 | 11-Feb | 6-Mar | 14-Apr | 14-Apr | 12-Dec | 10-Nov | 21-Oct | 14-Oct |
| 1982 | 11-Feb | 8-Apr | 20-Apr | 5-May | 14-Nov | 20-Oct | 18-Oct | 30-Sep |
| 1983 | 5-Feb | 6-Feb | 13-Apr | 25-Apr | 3-Dec | 29-Nov | 29-Sep | 20-Sep |
| 1984 | 21-Jan | 3-Feb | 30-Mar | 4-May | 4-Dec | 20-Oct | 16-Oct | 24-Sep |
| 1985 | 9 -Feb | 18-Feb | 26-Apr | 12-May | 11-Nov | 8-Oct | 28-Sep | 28-Sep |
| 1986 | 20-Feb | 20-Feb | 5-May | 6-May | 9-Nov | 9-Nov | 9-Nov | 12-Oct |
| 1987 | 29-Mar | 30-Mar | 20-Apr | 20-May | 18-Nov | 16-Nov | 16-Oct | 11-Oct |
| 1988 | 4-Feb | 28-Mar | 9-Apr | 4-May | 1-Dec | 27-Oct | 27-Oct | 26-Oct |
| 1989 | 4-Mar | 5-Mar | 1-Apr | 9-Apr | 2-Nov | 30-Oct | 15-Oct | 3-Oct |
| 1990 | 20-Feb | 25-Mar | 27-Mar | 8-May | 7-Dec | 6-Dec | 7-Oct | 6-Oct |

Probabilities

| $10 \%$ | 27-Jan | 5-Feb | 29-Mar | 20-Apr | 31-Oct | 15-Oct | 28-Sep | 23-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $20 \%$ | 4-Feb | 19-Feb | 6-Apr | 24-Apr | 4-Nov | 20-Oct | 7-Oct | 27-Sep |
| Median $(50 \%)$ | 18-Feb | $16-\mathrm{Mar}$ | 15-Apr | 4-May | 26-Nov | 9-Nov | 19-Oct | 5-Oct |
| $80 \%$ | $5-\mathrm{Mar}$ | $7-\mathrm{Apr}$ | 26-Apr | 17-May | 15-Dec | 28-Nov | 27-Oct | 14-Oct |
| $90 \%$ | $25-\mathrm{Mar}$ | $13-\mathrm{Apr}$ | 4-May | 26-May | 23-Dec | 7-Dec | 1-Nov | 20-Oct |

## Squaw Butte Experiment Station, Oregon

## Latitude: $\quad 43^{\circ} 29$

Longitude: $\quad 119^{\circ} 41^{\prime}$

Elevation: $\quad 4660 \mathrm{ft}$.

County: Harney

Station Number: 358029

Agency: Oregon State Agricultural Experiment Station

Station History:

| \ativide | Eongilal | Elevation | Stary ${ }^{\text {are }}$ | Encesate |
| :---: | :---: | :---: | :---: | :---: |
| $43^{\circ} 29^{\prime}$ | $119^{\circ} 41^{\prime}$ | 4675 | 11/5/36 | 7/1/48 |
| $43^{\circ} 29$ | $119^{\circ} 41^{\prime}$ | 4680 | 7/1/48 | 10/1/72 |
| $43^{\circ} 29^{\prime}$ | $119^{\circ} 43^{\prime}$ | 4660 | 10/1/72 | present |

## Monthly Means and Extremes

Squaw Butte, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 35.4 | 41.5 | 46.5 | 55.5 | 63.9 | 74.1 | 83.4 | 82.4 | 73.8 | 62.1 | 45.7 | 37.3 | 58.5 |
| Minimum | 17.5 | 22.7 | 25.2 | 29.5 | 35.6 | 43.8 | 50.2 | 49.5 | 42.5 | 34.4 | 26.3 | 20.7 | 33.2 |
| Mean | 26.3 | 32.2 | 35.8 | 42.5 | 49.7 | 59.0 | 66.7 | 66.0 | 58.2 | 48.1 | 36.0 | 28.7 | 45.8 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 55 | 60 | 70 | 82 | 88 | 96 | 99 | 104 | 95 | 87 | 72 | 59 | 104 |
| Minimum | -17 | -16 | 5 | 11 | 16 | 23 | 30 | 30 | 19 | 7 | -3 | -20 | -20 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.27 | . 72 | . 86 | . 73 | 1.13 | . 94 | . 36 | . 73 | . 52 | . 71 | 1.23 | 1.22 | 10.42 |
| Extreme 24 hr . | 1.23 | . 50 | . 75 | 1.27 | 1.00 | 1.36 | 1.04 | 1.08 | . 98 | 1.29 | . 73 | 2.05 | 2.05 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  |  | 2.0 | 7.4 | 7.6 | 1.0 |  |  |  | 18.0 |
| Maximum $32^{\circ}$ or less | 9.8 | 2.9 | 1.2 |  |  |  |  |  |  | . 1 | 2.1 | 8.2 | 24.3 |
| Minimum $32^{\circ}$ or less | 28.6 | 25.7 | 26.4 | 19.9 | 11.3 | 2.5 | . 4 | . 4 | 3.7 | 12.7 | 23.3 | 27.1 | 181.9 |
| Minimum $0^{\circ}$ or less | 1.9 | . 5 |  |  |  |  |  |  |  |  | . 1 | 1.0 | 3.5 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 8.2 | 6.4 | 7.3 | 5.3 | 6.9 | 5.7 | 2.7 | 3.9 | 2.9 | 5.1 | 8.0 | 7.0 | 69.3 |
| . 10 inches or more | 4.5 | 3.2 | 3.2 | 2.8 | 3.8 | 3.0 | 1.2 | 2.1 | 1.4 | 2.3 | 4.4 | 3.3 | 35.3 |
| . 50 inches or more | . 4 | 1 | . 2 | . 3 | . 5 | . 3 |  | . 3 | . 4 | . 2 | . 4 | . 5 | 3.6 |
| 1.00 inches or more | . 1 |  |  |  |  | . 1 |  |  | . 1 |  |  | . 1 | . 4 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1178 | 914 | 892 | 656 | 463 | 212 | 65 | 84 | 229 | 514 | 849 | 1078 | 7135 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 0 | 0 | 2 | 29 | 99 | 285 | 513 | 492 | 271 | 84 | 3 | 0 | 1778 |

Total Monthly Precipitation (in inches)
Squaw Butte, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 40 | 1.08 | . 94 | . 10 | 1.36 | . 90 | . 44 | . 40 | . 58 | . 76 | . 85 | 1.50 | 9.31 |
| 1962 | . 75 | 1.52 | . 48 | . 20 | . 78 | . 10 | . 00 | . 07 | . 20 | 3.38 | . 90 | . 60 | 8.98 |
| 1963 | 1.15 | 1.35 | . 50 | 2.35 | 1.45 | 1.59 | . 23 | . 21 | 1.29 | . 37 | . 68 | . 98 | 12.15 |
| 1964 | 2.42 | . 05 | . 90 | . 39 | . 77 | 2.45 | 1.38 | 1.18 | . 05 | . 59 | 1.16 | 4.91 | 16.25 |
| 1965 | 1.82 | . 23 | . 12 | . 80 | . 26 | 2.54 | . 90 | 2.04 | . 00 | . 10 | 1.70 | . 35 | 10.86 |
| 1966 | 1.15 | . 61 | . 99 | . 27 | 1.00 | 1.56 | . 13 | . 35 | 1.44 | . 14 | 2.39 | 2.52 | 12.55 |
| 1967 | 1.89 | . 15 | 1.31 | 1.01 | . 99 | . 51 | . 05 | . 91 | . 32 | 1.16 | . 39 | . 35 | 9.04 |
| 1968 | 1.05 | . 75 | . 05 | . 03 | . 50 | . 32 | . 08 | 2.72 | 20 | . 86 | 2.45 | . 90 | 9.91 |
| 1969 | 1.80 | . 50 | . 35 | . 70 | 1.00 | 1.92 | . 05 | . 00 | . 35 | 1.04 | . 67 | 2.05 | 10.43 |
| 1970 | 2.80 | . 15 | . 45 | . 40 | 1.14 | . 82 | . 32 | . 00 | . 08 | . 94 | 2.40 | 1.16 | 10.66 |
| 1971 | 1.55 | . 41 | 1.20 | 1.10 | 1.96 | . 63 | . 37 | . 01 | . 74 | 1.06 | 1.35 | 1.15 | 11.53 |
| 1972 | 1.00 | . 70 | . 95 | . 30 | 1.37 | . 63 | . 04 | . 02 | . 38 | . 30 | 1.08 | 1.50 | 8.27 |
| 1973 | . 70 | . 55 | . 43 | . 29 | 1.85 | . 03 | . 07 | . 82 | . 85 | . 67 | 2.40 | 1.43 | 10.09 |
| 1974 | . 55 | . 60 | 1.43 | . 59 | . 58 | . 19 | . 66 | . 08 | . 00 | . 32 | . 19 | 1.42 | 6.61 |
| 1975 | . 95 | 1.35 | 1.10 | . 70 | 1.10 | . 31 | 1.02 | . 38 | . 05 | 1.17 | . 58 | 1.35 | 10.06 |
| 1976 | 1.75 | 1.10 | . 03 | . 70 | . 25 | . 77 | . 42 | 3.45 | . 58 | . 26 | . 34 | . 05 | 9.70 |
| 1977 | . 52 | . 40 | . 25 | .35 | 2.02 | 1.52 | . 11 | . 66 | 1.34 | . 34 | 1.88 | 1.45 | 10.84 |
| 1978 | 1.65 | . 75 | 1.30 | . 00 | . 60 | . 92 | . 14 | . 70 | . 53 | . 02 | 1.35 | . 55 | 8.51 |
| 1979 | 2.58 | 1.40 | 1.00 | . 82 | . 26 | . 68 | . 05 | 1.68 | . 70 | 1.02 | 1.50 | 1.05 | 12.74 |
| 1980 | . 70 | 1.25 | 1.05 | . 35 | 1.51 | 1.63 | . 65 | . 02 | 1.06 | 1.07 | . 62 | . 50 | 10.41 |
| 1981 | 1.35 | . 35 | 1.10 | 1.18 | 1.99 | . 64 | . 07 | . 12 | . 44 | 1.49 | . 00 | M | 8.73 |
| 1982 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1983 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1984 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1985 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1986 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1987 | . 81 | 1.03 | 1.01 | 1.14 | 1.39 | 1.13 | 1.69 | . 32 | . 00 | . 01 | 1.69 | 1.25 | 11.47 |
| 1988 | . 78 | . 56 | . 51 | 2.30 | 1.20 | . 75 | . 00 | . 53 | . 15 | . 00 | 1.92 | . 81 | 9.51 |
| 1989 | 1.14 | . 96 | 2.86 | . 98 | 1.74 | . 31 | . 17 | . 98 | 1.49 | . 28 | . 50 | . 30 | 11.71 |
| 1990 | . 56 | . 26 | 1.17 | . 52 | 1.07 | . 57 | . 04 | . 66 | . 30 | . 45 | 1.04 | M | 6.64 |
| Mean | 1.27 | . 72 | . 86 | . 73 | 1.13 | . 94 | . 36 | . 73 | . 52 | . 71 | 1.23 | 1.22 | 10.55 |
| Maximum | 2.80 | 1.52 | 2.86 | 2.35 | 2.02 | 2.54 | 1.69 | 3.45 | 1.49 | 3.38 | 2.45 | 4.91 | 16.25 |
| Minimum | . 40 | . 05 | . 03 | . 03 | . 25 | . 03 | . 00 | . 00 | . 00 | . 00 | . 19 | . 05 | 6.61 |
| StdDev | . 67 | . 44 | . 59 | . 59 | . 54 | . 69 | . 45 | . 89 | . 48 | . 70 | . 73 | . 99 | 1.95 |

Dates of Spring and Fall Low Temperatures
Squaw Butte, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 27-May | 30-May | 30-May | 9-Jun | 8-Oct | 22-Sep | 6-Sep | 3-Sep |
| 1962 | 4-Jun | 6-Jun | 6-Jul | 18-Jul | 5-Oct | 29-Sep | 29-Sep | 23-Aug |
| 1963 | 22-Apr | 10-May | 29-Jun | 29-Jun | 24-Oct | 24-Oct | 1-Aug | 1-Aug |
| 1964 | 23-May | 25-May | 27-Jun | 27-Jun | 16-Oct | 18-Sep | 19-Aug | 1-Aug |
| 1965 | 17-May | 23-May | 27-Jun | 12-Jul | 17-Sep | 16-Sep | 29-Aug | 13-Aug |
| 1966 | 17-May | 23-May | 27-Jun | 25-Jul | 14-Oct | 3-Oct | 12-Sep | 30-Aug |
| 1967 | 29-Apr | 26-May | 3-Jun | 12-Jun | 16-Oct | 6-Oct | 12-Sep | 12-Sep |
| 1968 | 6-May | 16-May | 29-Jun | 20-Jul | 8-Oct | 22-Sep | 16-Sep | 15-Aug |
| 1969 | 30-Apr | 4-May | 27-Jun | 28-Jun | 5-Oct | 14-Sep | 5-Aug | 5-Aug |
| 1970 | 12-May | 30-May | 30-Jun | 30-Jun | 24-Sep | 13-Sep | 9 -Sep | 9-Sep |
| 1971 | 20-May | 30-May | 10-Jul | 10-Jul | 14-Oct | 18-Sep | 3-Sep | 23-Aug |
| 1972 | 1-May | 12-Jun | 12-Jun | 22-Jul | 22-Sep | 20-Sep | 7-Sep | 15-Aug |
| 1973 | 28-Apr | 18-Jun | 2-Jul | 2-Jul | 1-Nov | 1-Oct | 1-Oct | 1-Sep |
| 1974 | 18-May | 21-May | 11-Jul | 11-Jul | 8-Nov | 4-Oct | 27-Sep | 14-Aug |
| 1975 | 5-May | 25-May | 25-May | 30-Jul | 7-Oct | 7-Oct | 8-Sep | 24-Aug |
| 1976 | 20-May | 20-May | 2-Jul | 2-Jul | 26-Nov | 17-Oct | 4-Oct | 17-Aug |
| 1977 | 6-May | 28-May | 2-Jun | 2-Jun | 3-Nov | 31-Oct | 22-Sep | 8-Sep |
| 1978 | 5-May | 25-May | 15-Jun | 25-Jun | 29-Oct | 22-Oct | 8-Sep | 17-Aug |
| 1979 | 19-Apr | 7-Jun | 2-Jul | 2-Jul | 1-Nov | 30-Oct | 20-Oct | 9-Sep |
| 1980 | 11-Apr | 2-Jun | 4-Jun | 27-Jun | 22-Oct | 22-Oct | 3-Sep | 3-Sep |
| 1981 | 28-Jun | 28-Jun | 8-Jul | 26-Jul | 30-Oct | 30-Oct | 23-Sep | 21-Sep |
| 1982 | 4-May | 27-May | 6-Jun | 8-Jun | 18-Oct | 18-Oct | 13-Sep | 10-Sep |
| 1983 | 9-May | 10-May | 3-Jul | 10-Jul | 7-Nov | 15-Oct | 19-Sep | 9-Sep |
| 1984 | 7-May | 8-Jun | 8-Jun | 22-Jun | 1-Oct | 1-Oct | 12-Sep | 12-Sep |
| 1985 | 4-May | 12-May | 30-May | 24-Jun | 8 -Oct | 8-Oct | 10-Sep | 10-Sep |
| 1986 | 11-May | 22-May | 5-Jul | 17-Jul | 8 -Nov | 8 -Nov | 16-Sep | 14-Sep |
| 1987 | 20-Apr | 20-May | 1-Jun | 17-Jul | 15-Nov | 16-Oct | 16-Sep | 17-Aug |
| 1988 | 1-May | 30-May | 29-Jun | 6-Jul | 7-Nov | 18-Sep | 17-Sep | 10-Sep |
| 1989 | 19-May | 19-May | 29-May | 20-Jun | 28-Oct | 15-Oct | 3-Oct | 10-Sep |
| 1990 | 8-May | 16-May | 13-Jun | 13-Jun | 7-Oct | 6-Oct | 6-Oct | 2-Oct |

Probabilities

| 10 | 21-Apr | 11-May | 30-May | 11-Jun | 30-Sep | 17-Sep | 28-Aug | 12-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 29-Apr | 18-May | 2-Jun | 21-Jun | 6-Oct | 19-Sep | 5-Sep | 15-Aug |
| Median $(50 \%)$ | 6-May | 25-May | 27-Jun | 2-Jul | 17-Oct | 6-Oct | 12-Sep | 2-Sep |
| 80 | 19-May | 2-Jun | 2-Jul | 17-Jul | 3-Nov | 22-Oct | 27-Sep | 10-Sep |
| 90 | 23-May | 8-Jun | 6-Jul | 22-Jul | 8-Nov | 30-Oct | 3-Oct | 12-Sep |

## The Dalles, Oregon

Latitude: $\quad 45^{\circ} 36^{\prime}$
Longitude: $\quad 121^{\circ} 12^{\prime}$
Elevation: $\quad 100 \mathrm{ft}$.

County: Wasco
Station Number: 358407

Agency: The Dalles Fire Department

Station History:

| Matimate | Eomginate | Elleration | Starisiale | Endisate |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 109 | 7/1/1850 | 3/31/1866 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 109 | 12/1/1874 | 12/31/1874 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 109 | 1/1/1875 | 8/31/12 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 106 | 3/20/13 | 9/30/14 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 10^{\prime}$ | 106 | 10/1/14 | 2/28/41 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 96 | 3/1/41 | 2/14/43 |
| $45^{\circ} 31^{\prime}$ | $121^{\circ} 10^{\prime}$ | 300 | 2/15/43 | 11/30/43 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 102 | 2/22/44 | 1/1/48 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 100 | 1/1/48 | 12/1/48 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 100 | 1/1/49 | 6/1/56 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 100 | 6/1/56 | 7/1/67 |
| $45^{\circ} 36^{\prime}$ | $121^{\circ} 12^{\prime}$ | 100 | 2/1/75 | present |

Monthly Means and Extremes
The Dalles, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 43.2 | 49.7 | 58.4 | 65.8 | 73.2 | 80.9 | 87.8 | 87.8 | 80.9 | 68.3 | 52.2 | 43.1 | 65.9 |
| Minimum | 29.9 | 32.7 | 36.9 | 42.3 | 48.4 | 55.5 | 60.0 | 59.3 | 51.2 | 42.3 | 36.1 | 30.5 | 43.8 |
| Mean | 36.6 | 41.2 | 47.7 | 54.1 | 60.8 | 68.2 | 73.9 | 72.6 | 66.0 | 55.3 | 44.2 | 36.8 | 54.8 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 65 | 70 | 79 | 94 | 107 | 110 | 109 | 109 | 104 | 92 | 75 | 68 | 110 |
| Minimum | -1 | -1 | 22 | 28 | 34 | 40 | 42 | 35 | 32 | 26 | 0 | -6 | -6 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 2.22 | 1.84 | 1.18 | . 74 | . 48 | . 41 | . 20 | . 55 | . 49 | . 89 | 1.98 | 2.94 | 13.92 |
| Extreme 24 hr . | 1.50 | 1.78 | 1.06 | 1.03 | . 52 | . 87 | 1.04 | . 82 | . 76 | 1.38 | 1.30 | 2.00 | 2.00 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  | . 1 | 2.0 | 7.0 | 13.6 | 13.4 | 5.2 | . 1 |  |  | 41.3 |
| Maximum $32^{\circ}$ or less | 3.4 | 1.0 |  |  |  |  |  |  |  |  | . 6 | 3.2 | 8.1 |
| Minimum $32^{\circ}$ or less | 17.6 | 11.8 | 6.2 | 1.0 |  |  |  |  | . 1 | 1.2 | 8.5 | 17.0 | 63.3 |
| Minimum $0^{\circ}$ or less | . 1 | . 1 |  |  |  |  |  |  |  |  | . 1 | . 4 | . 6 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 12.2 | 11.8 | 11.2 | 7.1 | 5.1 | 4.0 | 1.9 | 3.5 | 4.2 | 7.1 | 13.9 | 13.3 | 95.2 |
| . 10 inches or more | 5.9 | 5.3 | 4.3 | 2.3 | 1.7 | 1.1 | . 6 | 1.4 | 1.7 | 2.8 | 6.2 | 6.8 | 40.0 |
| . 50 inches or more | 1.1 | . 7 | 2 | . 2 |  | . 1 | . 1 | . 2 | . 2 | . 3 | . 8 | 1.6 | 5.4 |
| 1.00 inches or more | . | . 1 | . 1 |  |  |  |  |  |  | . 1 | . | . 5 | . 9 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 883 | 671 | 538 | 327 | 168 | 44 | 7 | 6 | 63 | 298 | 623 | 863 | 4490 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 2 | 4 | 29 | 147 | 336 | 546 | 736 | 722 | 478 | 186 | 19 | 2 | 3206 |

Total Monthly Precipitation (in inches)
The Dalles, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | 1.76 | 4.24 | 2.40 | . 87 | 1.01 | . 54 | . 17 | . 26 | . 30 | 1.15 | 2.42 | 3.19 | 18.31 |
| 1962 | . 55 | 2.01 | 1.83 | . 94 | 1.04 | . 02 | . 00 | . 72 | . 49 | 2.80 | 1.49 | 1.72 | 13.61 |
| 1963 | . 65 | 2.35 | 1.28 | 1.33 | . 41 | . 04 | . 04 | . 14 | . 66 | . 40 | 2.55 | 1.62 | 11.47 |
| 1964 | 3.18 | . 13 | . 55 | . 15 | . 02 | . 69 | . 06 | . 14 | . 00 | . 53 | 3.19 | 9.05 | 17.69 |
| 1965 | 3.05 | . 41 | 1.56 | . 99 | . 30 | . 36 | . 13 | . 60 | . 15 | . 25 | 2.37 | . 73 | 10.90 |
| 1966 | 3.77 | . 65 | 1.12 | . 00 | . 27 | . 11 | . 75 | . 00 | . 79 | . 84 | 2.76 | 3.41 | 14.47 |
| 1967 | 2.03 | . 20 | . 99 | 1.21 | . 10 | . 30 | . 00 | M | M | M | M | M | 4.83 |
| 1968 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1969 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1970 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1971 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1972 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1973 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1974 | M | M | M | M | M | M | M | M | M | M | M | M | M |
| 1975 | M | 2.72 | 1.66 | . 98 | . 10 | . 65 | . 26 | . 86 | . 00 | 1.87 | 2.15 | 2.80 | 14.05 |
| 1976 | 1.33 | 1.79 | 1.08 | . 96 | . 24 | . 13 | . 14 | . 56 | . 24 | . 26 | . 56 | . 33 | 7.62 |
| 1977 | . 42 | . 76 | . 45 | . 00 | . 83 | . 30 | . 30 | . 84 | . 68 | . 20 | 3.14 | 5.94 | 13.86 |
| 1978 | 3.21 | 1.91 | . 62 | . 69 | . 41 | . 00 | . 20 | . 90 | . 58 | . 12 | . 83 | 1.56 | 11.03 |
| 1979 | 1.55 | 2.12 | . 79 | . 85 | . 16 | . 13 | . 04 | 1.17 | . 48 | 2.29 | 1.81 | 1.31 | 12.70 |
| 1980 | 5.43 | 2.40 | 1.02 | 1.32 | . 19 | . 86 | . 00 | . 09 | . 39 | . 72 | 2.00 | 5.24 | 19.66 |
| 1981 | 1.52 | 2.51 | . 29 | . 17 | . 61 | 1.53 | 1.04 | . 00 | 1.03 | 1.00 | 1.99 | 6.43 | 18.12 |
| 1982 | 1.80 | 1.79 | . 65 | 1.01 | . 25 | . 29 | . 04 | . 16 | 1.90 | 2.33 | 1.21 | 3.91 | 15.34 |
| 1983 | 3.41 | 4.32 | 3.21 | . 46 | . 45 | . 11 | . 38 | 1.77 | . 89 | . 58 | 3.78 | 3.26 | 22.62 |
| 1984 | . 97 | 1.81 | 1.72 | . 99 | . 76 | . 76 | . 00 | . 00 | . 48 | 1.26 | 4.32 | 1.29 | 14.36 |
| 1985 | . 08 | 1.06 | 1.00 | . 12 | . 30 | . 89 | . 02 | . 29 | . 43 | . 75 | 1.10 | 1.73 | 7.77 |
| 1986 | 3.97 | 4.87 | . 99 | . 12 | . 43 | . 12 | . 15 | . 07 | 1.11 | . 47 | 1.90 | 1.58 | 15.78 |
| 1987 | 2.85 | 2.16 | 1.29 | . 48 | . 51 | . 06 | . 57 | . 07 | . 02 | . 05 | . 83 | 5.38 | 14.27 |
| 1988 | 2.44 | . 17 | . 91 | 1.48 | . 15 | 1.11 | . 08 | . 00 | . 18 | . 00 | 3.47 | . 59 | 10.58 |
| 1989 | 1.99 | . 58 | 1.89 | . 87 | . 57 | . 44 | . 16 | . 85 | . 10 | . 70 | . 68 | 1.25 | 10.08 |
| 1990 | 3.28 | . 58 | . 71 | 1.72 | 1.84 | . 35 | . 07 | 1.22 | . 13 | . 69 | . 96 | 1.48 | 13.03 |
| Mean | 2.24 | 1.81 | 1.22 | . 77 | . 48 | . 43 | . 20 | . 49 | . 50 | . 88 | 2.07 | 2.90 | 13.97 |
| Maximum | 5.43 | 4.87 | 3.21 | 1.72 | 1.84 | 1.53 | 1.04 | 1.77 | 1.90 | 2.80 | 4.32 | 9.05 | 22.62 |
| Minimum | . 08 | . 13 | . 29 | . 00 | . 02 | . 00 | . 00 | . 00 | . 00 | . 00 | . 56 | . 33 | 7.62 |
| StdDev | 1.35 | 1.35 | . 68 | . 50 | . 41 | . 40 | . 26 | . 50 | . 45 | . 79 | 1.07 | 2.26 | 3.84 |

Dates of Spring and Fall Low Temperatures
The Dalles, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ | $24^{\circ}$ | $28^{\circ}$ | $32^{\circ}$ | $36^{\circ}$ |
| 1961 | 28-Jan | 28-Jan | 19-Apr | 19-Apr | 16-Nov | 5-Nov | 20-Oct | 18-Oct |
| 1962 | 28-Feb | 13-Mar | 29-Mar | 31-Mar | 24-Dec | 29-Nov | 24-Nov | 7-Nov |
| 1963 | 2-Feb | 2-Feb | 2-Apr | 2-Apr | 11-Dec | 28-Nov | 26-Oct | 19-Oct |
| 1964 | *** | 24-Mar | 17-Apr | 19-Apr | 16-Dec | 15-Nov | 14-Nov | 18-Oct |
| 1965 | 19-Mar | 24-Mar | 26-Mar | 5-May | 15-Dec | 14-Dec | 25-Nov | 17-Sep |
| 1966 | *** | 4-Mar | 19-Apr | 19-Apr | *** | 26-Dec | 23-Nov | 14-Oct |
| 1967 | *** | 12-Mar | 14-Apr | 28-Apr | *** | *** | *** | *** |
| 1968 | M | M | M | M | M | M | M | M |
| 1969 | M | M | M | M | M | M | M | M |
| 1970 | M | M | M | M | M | M | M | M |
| 1971 | M | M | M | M | M | M | M | M |
| 1972 | M | M | M | M | M | M | M | M |
| 1973 | M | M | M | M | M | M | M | M |
| 1974 | M | M | M | M | M | M | M | M |
| 1975 | 10-Feb | 5-Apr | 12-Apr | 29-Apr | 18-Nov | 8-Nov | 7-Nov | 11-Aug |
| 1976 | 5-Mar | 5-Mar | 3-Apr | 23-Apr | 27-Nov | 19-Oct | 18-Oct | 15-Oct |
| 1977 | 27-Jan | 29-Jan | 16-Mar | 30-Mar | 19-Nov | 19-Nov | 4-Nov | 4-Oct |
| 1978 | 6-Jan | 12-Feb | 16-Mar | 17-Apr | 12-Nov | 1-Nov | 26-Oct | 22-Oct |
| 1979 | 5-Feb | 3-Mar | 10-Mar | 23-Mar | 23-Nov | 23-Nov | 19-Nov | 1-Nov |
| 1980 | 2-Feb | 16-Feb | 2-Apr | 13-Apr | *** | 1-Dec | 23-Oct | 22-Oct |
| 1981 | 11-Feb | 13-Feb | 13-Apr | 15-Apr | *** | 28-Nov | 22-Oct | 14-Oct |
| 1982 | 11-Feb | 25-Feb | 20-Apr | 21-Apr | 27-Dec | 11-Nov | 19-Oct | 18-Oct |
| 1983 | *** | 7-Feb | 10-Apr | 16-Apr | 17-Dec | 8 -Dec | 29-Nov | 29-Sep |
| 1984 | 20-Jan | 20-Feb | 6-Mar | 9-Apr | 18-Dec | 3-Dec | 1-Nov | 15-Oct |
| 1985 | 13-Feb | 27-Feb | 22-Apr | 14-May | 11-Nov | 9-Oct | 30-Sep | 29-Sep |
| 1986 | $9-\mathrm{Feb}$ | 19-Feb | 21-Feb | 6-May | 10-Nov | 10-Nov | 10-Nov | 12-Oct |
| 1987 | 25-Feb | 28-Feb | 30-Mar | 20-Apr | *** | 13-Dec | 17-Nov | 16-Oct |
| 1988 | 4-Feb | 24-Feb | 17-Mar | 10-Apr | 16-Dec | 15-Dec | 30-Nov | 27-Oct |
| 1989 | 16-Feb | 4-Mar | 20-Mar | 30-Mar | *** | 11-Dec | 29-Oct | 15-Oct |
| 1990 | 16-Feb | 19-Feb | 25-Mar | 28-Mar | 19-Dec | 19-Dec | 16-Nov | 8-Oct |

Probabilities

| 10\% | 25-Jan | 3-Feb | 11-Mar | 30-Mar | 11-Nov | 1-Nov | 19-Oct | 29-Sep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20\% | 31-Jan | 12-Feb | 16-Mar | 31-Mar | 16-Nov | 8-Nov | 22-Oct | 4-Oct |
| Median (50\%) | 10-Feb | 25-Feb | 2-Apr | 17-Apr | 11-Dec | 28-Nov | 5-Nov | 15-Oct |
| 80\% | 19-Feb | 9-Mar | 15-Apr | 26-Apr | 17-Dec | 12-Dec | 22-Nov | 21-Oct |
| 90\% | 29-Feb | 21-Mar | 19-Apr | 3-May | 21-Dec | 14-Dec | 24-Nov | 26-Oct |

${ }^{* * *}$ Did not occur M=Missing

## Tllamook, Oregon

## Latitude: $\quad 45^{\circ} 27^{\prime}$

Longitude: $\quad 123^{\circ} 52^{\prime}$

Elevation: $\quad 10 \mathrm{ft}$.

County: Tillamook
Station Number: 358494

Agency: Radio Station KTIL

Station History:

| Eatimae | Forginale | EMevation | Star.mate | End Date |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 26^{\prime}$ | $123^{\circ} 51^{\prime}$ | 10 | 2/1/1889 | 7/30/1894 |
| $45^{\circ} 28^{\prime}$ | $123^{\circ} 51^{\prime}$ | 23 | 1/1/1894 | 10/31/1894 |
| $45^{\circ} 28{ }^{\prime}$ | $123^{\circ} 51^{\prime}$ | 14 | 1/1/1896 | 8/31/12 |
| $45^{\circ} 27$ | $123^{\circ} 51^{\prime}$ | 20 | 6/8/13 | 1/31/15 |
| $45^{\circ} 28^{\prime}$ | $123^{\circ} 51^{\prime}$ | 20 | 4/1/15 | 5/31/17 |
| $45^{\circ} 27^{\prime}$ | $123^{\circ} 51^{\prime}$ | 20 | 6/1/17 | 5/31/18 |
| $45^{\circ} 27^{\prime}$ | $123^{\circ} 51^{\prime}$ | 20 | 4/1/19 | 5/31/20 |
| $45^{\circ} 27^{\prime}$ | $123^{\circ} 51^{\prime}$ | 20 | 2/1/22 | 6/30/23 |
| $45^{\circ} 27$ | $123^{\circ} 51^{\prime}$ | 20 | 5/1/25 | 1/31/26 |
| $45^{\circ} 27$ | $123^{\circ} 51^{\prime}$ | 23 | 5/1/26 | 1/31/29 |
| $45^{\circ} 28^{\prime}$ | $123^{\circ} 51^{\prime}$ | 23 | 9/1/32 | 4/30/47 |
| $45^{\circ} 29^{\prime}$ | $123^{\circ} 51^{\prime}$ | 15 | 10/24/47 | 7/1/48 |
| $45^{\circ} 29^{\prime}$ | $123^{\circ} 51^{\prime}$ | 40 | 7/1/48 | 1/1/53 |
| $45^{\circ} 28^{\prime}$ | $123^{\circ} 51^{\prime}$ | 20 | 2/1/53 | 3/1/56 |
| $45^{\circ} 27^{\prime}$ | $123^{\circ} 49^{\prime}$ | 30 | 3/1/56 | 7/1/65 |
| $45^{\circ} 27^{\prime}$ | $123^{\circ} 52^{\prime}$ | 10 | 7/1/65 | present |

## Monthly Means and Extremes

Tillamook, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 49.9 | 52.9 | 54.5 | 56.9 | 60.8 | 64.7 | 67.3 | 68.5 | 68.6 | 62.8 | 54.6 | 49.8 | 59.3 |
| Minimum | 35.7 | 36.9 | 36.9 | 38.5 | 42.4 | 46.7 | 49.2 | 49.5 | 46.4 | 42.2 | 39.1 | 36.1 | 41.6 |
| Mean | 42.8 | 44.9 | 45.7 | 47.7 | 51.6 | 55.7 | 58.2 | 59.0 | 57.5 | 52.5 | 46.8 | 42.9 | 50.4 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 69 | 73 | 73 | 84 | 86 | 92 | 102 | 102 | 97 | 92 | 80 | 66 | 102 |
| Minimum | 11 | 8 | 21 | 23 | 27 | 31 | 35 | 34 | 27 | 22 | 14 | 4 | 4 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 13.56 | 9.94 | 10.16 | 6.05 | 4.43 | 3.20 | 1.60 | 1.75 | 3.76 | 7.12 | 13.06 | 13.93 | 88.56 |
| Extreme 24 hr . | 5.22 | 2.94 | 3.75 | 2.92 | 1.68 | 2.50 | 2.00 | 1.57 | 2.65 | 3.57 | 4.26 | 4.92 | 5.22 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  |  |  | . 2 | . 2 | . 5 |  |  |  | . 8 |
| Maximum $32^{\circ}$ or less | . 3 | . 1 |  |  |  |  |  |  |  |  |  | . 6 | 1.0 |
| Minimum $32^{\circ}$ or less | 10.7 | 8.0 | 8.8 | 5.7 | 1.7 |  |  |  | . 6 | 3.3 | 6.5 | 9.8 | 55.1 |
| Minimum $0^{\circ}$ or less |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 20.9 | 18.9 | 20.7 | 17.0 | 14.2 | 9.8 | 6.4 | 6.3 | 10.0 | 14.4 | 21.0 | 22.2 | 181.7 |
| . 10 inches or more | 17.6 | 16.0 | 17.2 | 12.8 | 10.0 | 6.9 | 3.8 | 4.1 | 7.4 | 11.1 | 17.8 | 18.5 | 143.3 |
| . 50 inches or more | 9.5 | 7.5 | 8.5 | 4.0 | 3.1 | 2.1 | . 9 | 1.2 | 2.8 | 5.5 | 10.1 | 9.8 | 65.0 |
| 1.00 inches or more | 4.3 | 2.8 | 2.5 | 1.0 | . 6 | . 6 | . 3 | . 2 | . 9 | 2.3 | 4.0 | 4.4 | 23.8 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 689 | 568 | 599 | 520 | 415 | 281 | 212 | 188 | 228 | 390 | 545 | 682 | 5318 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 8 | 15 | 14 | 26 | 80 | 174 | 255 | 280 | 228 | 107 | 27 | 8 | 1222 |

Total Monthly Precipitation (in inches)
Tillamook, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | 12.51 | 22.90 | 17.42 | 5.10 | 5.15 | 1.10 | . 51 | 1.45 | 2.03 | 9.50 | 10.56 | 14.15 | 102.38 |
| 1962 | 7.67 | 8.48 | 9.97 | 8.53 | 4.39 | 1.57 | . 61 | 3.64 | 5.46 | 7.49 | 19.81 | 7.44 | 85.06 |
| 1963 | 5.47 | 10.59 | 8.83 | 7.99 | 3.26 | 3.74 | 2.38 | 5.12 | 2.62 | 10.49 | 17.72 | 10.64 | 88.85 |
| 1964 | 25.34 | 4.44 | 10.07 | 4.87 | 2.66 | 4.30 | 3.63 | 2.90 | 2.87 | 2.60 | 14.85 | 19.18 | 97.71 |
| 1965 | 23.06 | 6.44 | 1.64 | 5.56 | 3.08 | 1.02 | . 59 | . 85 | 1.02 | 4.12 | 14.29 | 14.69 | 76.36 |
| 1966 | 14.23 | 7.09 | 13.12 | 2.87 | 1.98 | 1.88 | . 34 | 1.02 | 2.14 | 6.55 | 12.08 | 18.69 | 81.99 |
| 1967 | 17.08 | 8.57 | 12.46 | 6.64 | 1.52 | . 69 | . 00 | . 07 | 3.09 | 11.18 | 8.11 | 11.46 | 80.87 |
| 1968 | 12.55 | 9.18 | 10.50 | 5.92 | 4.92 | 6.80 | . 95 | 6.53 | 3.89 | 12.82 | 16.02 | 19.27 | 109.35 |
| 1969 | 13.68 | 6.78 | 4.55 | 5.69 | 4.77 | 6.08 | . 64 | . 61 | 5.44 | 7.80 | 7.80 | 16.19 | 80.03 |
| 1970 | 19.39 | 7.07 | 6.21 | 9.77 | 3.56 | 1.17 | . 70 | . 23 | 5.71 | 7.43 | 11.80 | 22.38 | 95.42 |
| 1971 | 25.10 | 9.46 | 14.06 | 6.16 | 3.56 | 3.67 | 2.90 | 1.43 | 7.77 | 7.94 | 12.98 | 22.41 | 117.44 |
| 1972 | 18.51 | 11.92 | 13.61 | 11.22 | 1.97 | 2.15 | 1.15 | . 44 | 5.84 | 2.40 | 11.14 | 18.54 | 98.89 |
| 1973 | 9.01 | 3.22 | 10.08 | 3.58 | 4.44 | 5.62 | . 14 | . 84 | 6.11 | 9.71 | 22.07 | 20.07 | 94.89 |
| 1974 | 16.92 | 12.46 | 14.62 | 7.58 | 6.65 | 2.65 | 4.87 | . 47 | . 78 | 2.61 | 14.34 | 18.45 | 102.40 |
| 1975 | 19.71 | 11.84 | 9.28 | 5.30 | 4.46 | 2.52 | 1.01 | 3.98 | . 07 | 13.77 | 14.15 | 19.80 | 105.89 |
| 1976 | 14.29 | 11.38 | 9.71 | 5.26 | 3.28 | 1.31 | 2.77 | 2.22 | 1.70 | 3.32 | 2.57 | 4.53 | 62.34 |
| 1977 | 3.25 | 6.81 | 13.50 | 2.34 | 8.87 | 1.66 | . 83 | 3.80 | 7.80 | 7.03 | 14.59 | 19.53 | 90.01 |
| 1978 | 9.67 | 7.49 | 4.11 | 8.10 | 5.86 | 3.41 | 1.03 | 4.16 | 6.94 | 1.80 | 9.08 | 6.32 | 67.97 |
| 1979 | 4.17 | 13.65 | 6.92 | 5.32 | 4.20 | 3.07 | 1.92 | 1.12 | 5.21 | 12.56 | 10.90 | 16.57 | 85.61 |
| 1980 | 10.42 | 9.99 | 9.73 | 6.20 | 3.38 | 2.67 | . 56 | 1.15 | 3.41 | 3.06 | 13.98 | 17.56 | 82.11 |
| 1981 | 4.62 | 8.67 | 8.38 | 8.53 | 5.19 | 7.24 | . 68 | . 55 | 4.78 | 13.43 | 10.24 | 16.25 | 88.56 |
| 1982 | 18.85 | 13.44 | 10.12 | 9.10 | 1.19 | 1.65 | 2.27 | 1.13 | 5.94 | 7.25 | 11.02 | 15.99 | 97.95 |
| 1983 | 18.70 | 15.06 | 13.09 | 3.64 | 5.19 | 7.56 | 5.37 | 1.31 | 2.21 | 2.67 | 19.63 | 10.29 | 104.72 |
| 1984 | 9.92 | 11.24 | 7.28 | 7.73 | 8.15 | 6.07 | 1.09 | . 32 | 4.37 | 10.19 | 18.32 | 10.14 | 94.82 |
| 1985 | . 79 | 8.26 | 9.66 | 3.04 | 2.34 | 4.00 | . 75 | 1.27 | 4.92 | 9.79 | 12.51 | 3.88 | 61.21 |
| 1986 | 14.07 | 12.05 | 7.72 | 6.00 | 5.50 | 1.13 | 3.28 | . 26 | 5.59 | 5.38 | 11.99 | 6.12 | 79.09 |
| 1987 | 12.90 | 8.25 | 16.02 | 3.72 | 6.20 | 1.38 | 1.70 | . 89 | 1.31 | . 62 | 5.88 | 13.01 | 71.88 |
| 1988 | 10.70 | 5.47 | 10.09 | 6.38 | 7.33 | 3.34 | 1.56 | . 81 | 2.61 | 2.61 | 20.52 | 10.20 | 81.62 |
| 1989 | 12.77 | 8.66 | 16.35 | 2.61 | 4.19 | 2.78 | 3.09 | 2.65 | . 59 | 6.54 | 9.56 | 6.57 | 76.36 |
| 1990 | 21.41 | 17.27 | 5.80 | 6.83 | 5.63 | 3.86 | . 63 | 1.16 | . 44 | 11.02 | 13.29 | 7.59 | 94.93 |
| Mean | 13.56 | 9.94 | 10.16 | 6.05 | 4.43 | 3.20 | 1.60 | 1.75 | 3.76 | 7.12 | 13.06 | 13.93 | 88.56 |
| Maximum | 25.34 | 22.90 | 17.42 | 11.22 | 8.87 | 7.56 | 5.37 | 6.53 | 7.80 | 13.77 | 22.07 | 22.41 | 117.44 |
| Minimum | . 79 | 3.22 | 1.64 | 2.34 | 1.19 | . 69 | . 00 | . 07 | . 07 | . 62 | 2.57 | 3.88 | 61.21 |
| StdDev | 6.45 | 3.98 | 3.77 | 2.22 | 1.88 | 2.00 | 1.38 | 1.62 | 2.26 | 3.88 | 4.42 | 5.59 | 13.73 |

## Dates of Spring and Fall Low Temperatures

Tillamook, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 3-Jan | 7-Apr | 26-Apr | 21-Jun | 15-Nov | 4-Nov | 23-Sep | 6-Sep |
| 1962 | 28-Mar | 3-Apr | 16-May | 3-Jul | 24-Dec | 23-Nov | 16-Sep | 16-Sep |
| 1963 | 29-Jan | 2-Apr | 10-May | 27-Jun | 28-Nov | 28-Nov | 19-Oct | 18-Oct |
| 1964 | 27-Feb | 18-Apr | 25-May | 28-Jun | 15-Nov | 26-Oct | 3-Oct | 26-Sep |
| 1965 | 24-Mar | 8-May | 14-May | 28-Jun | 14-Dec | 25-Nov | 17-Sep | 17-Sep |
| 1966 | 20-Jan | 27-May | 31-May | 5-Jun | *** | 21-Dec | 9-Oct | 13-Sep |
| 1967 | *** | 19-Apr | 26-May | 26-May | 13-Dec | 21-Nov | 20-Oct | 15-Oct |
| 1968 | 28-Jan | 17-Apr | 2-May | 20-Jun | 20-Dec | 19-Dec | 2-Oct | 28-Sep |
| 1969 | 14-Mar | 14-Mar | 6-May | 15-May | *** | 24-Nov | 11-Oct | 29-Aug |
| 1970 | 11-Jan | 18-May | 23-May | 23-May | 19-Dec | 26-Oct | 13-Sep | 17-Aug |
| 1971 | 1-Mar | 3-Apr | 19-Apr | 29-Jun | 28-Oct | 16 -Oct | 30-Sep | 15-Sep |
| 1972 | $3-\mathrm{Feb}$ | 30-Apr | 25-May | 25-May | 4-Dec | 27-Sep | 25-Sep | 25-Sep |
| 1973 | 4-Feb | 2-Apr | 26-May | 10-Jun | *** | 2-Nov | 3-Oct | 19-Aug |
| 1974 | 11-Jan | 13-Apr | 17-Apr | 24-Jun | *** | 6-Oct | 5-Oct | 27-Sep |
| 1975 | 14-Apr | 29-Apr | 25-May | 8-Jun | 28-Nov | 12-Nov | 9-Nov | 18-Sep |
| 1976 | 6-Mar | 14-Apr | 3-Jun | 27-Jun | 26-Nov | 26-Nov | 20-Oct | 8-Sep |
| 1977 | 30-Jan | 19-Apr | 12-May | 19-Jul | 19-Nov | 8 -Nov | 3-Oct | 2-Oct |
| 1978 | 11-Feb | 31-Mar | 6-May | 30-May | 10-Nov | 1-Nov | 21-Oct | 12-Oct |
| 1979 | 2-Feb | 2-Feb | 30-May | 12-Jun | 11-Nov | 11-Nov | 8-Nov | 11-Sep |
| 1980 | 6-Apr | 6-Apr | 3-May | 4-Jun | 8-Dec | 22-Oct | $9-\mathrm{Oct}$ | 9-Oct |
| 1981 | 8 -Feb | 13-Apr | 25-Apr | 12-May | 27-Nov | 4-Nov | 13-Oct | 11-Oct |
| 1982 | 10-Feb | 25-Apr | 5-May | 7-Jun | 30-Dec | 9-Nov | 18-Oct | 15-Sep |
| 1983 | *** | 4-Apr | 14-Apr | 4-May | 20-Dec | 29-Sep | 19-Sep | 19-Sep |
| 1984 | 18-Jan | 2-Feb | 27-Apr | 1-Jun | 19-Dec | 26-Nov | 15-Oct | 15-Oct |
| 1985 | 11-Mar | 18-Mar | 15-May | 1-Jul | 13-Nov | 9-Oct | 30-Sep | 28-Aug |
| 1986 | *** | 19-Feb | 30-Apr | 16-May | *** | 29-Nov | 29-Nov | 11-Sep |
| 1987 | 25-Feb | 25-Apr | 25-Apr | 17-Jun | 13-Dec | 28-Nov | 16-Oct | 17-Sep |
| 1988 | 2 -Feb | 17-Mar | 4-May | 11-Jun | 18-Dec | 27-Oct | 10-Sep | 8 -Sep |
| 1989 | 15-Feb | 3-Mar | 13-May | 21-May | *** | 29-Oct | 15-Oct | 18-Sep |
| 1990 | 14-Feb | 27-Mar | 8-May | 9-May | 20-Dec | 6-Dec | 7-Oct | 30-Sep |

Probabilities

| 10 | 15-Jan | 1-Mar | 24-Apr | 14-May | 11-Nov | 8-Oct | 16-Sep | 28-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 28-Jan | 17-Mar | 26-Apr | 22-May | 15-Nov | 25-Oct | 24-Sep | 8-Sep |
| Median $(50 \%)$ | 10-Feb | 6-Apr | 9-May | 9-Jun | 6-Dec | 8-Nov | 8-Oct | 17-Sep |
| 80 | 10-Mar | 25-Apr | 25-May | 27-Jun | 19-Dec | 26-Nov | 19-Oct | 3-Oct |
| 90 | 25-Mar | 30-Apr | 26-May | 29-Jun | 20-Dec | 29-Nov | 22-Oct | 12-Oct |

## Union, Oregon

Latitude: $\quad 45^{\circ} 13{ }^{\prime}$

Longitude: $\quad 117^{\circ} 53^{\prime}$
Elevation: $\quad 2770 \mathrm{ft}$.
County: Union

Station Number: 358746

Agency: Oregon State Agricultrural Experiment Station

Station History:

| Intirite | Yorginde | Elevation | Startmate | Eritame |
| :---: | :---: | :---: | :---: | :---: |
| $45^{\circ} 13^{\prime}$ | $117^{\circ} 52^{\prime}$ | 2787 | 10/6/11 | 2/28/12 |
| $45^{\circ} 13 '$ | $117^{\circ} 53^{\prime}$ | 2765 | 3/1/12 | 7/1/48 |
| $45^{\circ} 13^{\prime}$ | $117^{\circ} 53^{\prime}$ | 2770 | 7/1/48 | 9/1/51 |
| $45^{\circ} 13^{\prime}$ | $117{ }^{\circ} 53^{\prime}$ | 2770 | 10/1/51 | 2/1/69 |
| $45^{\circ} 13^{\prime}$ | $117{ }^{\circ} 53^{\prime}$ | 2770 | 2/1/69 | 4/1/73 |
| $45^{\circ} 13^{\prime}$ | $117^{\circ} 53^{\prime}$ | 2770 | 4/1/73 | present |

## Monthly Means and Extremes

Union, Oregon

| Parameter | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Ann |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mean Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 36.5 | 43.0 | 50.4 | 57.9 | 65.6 | 74.1 | 83.4 | 83.7 | 73.8 | 62.4 | 47.3 | 38.1 | 59.7 |
| Minimum | 23.5 | 27.4 | 29.9 | 33.8 | 39.4 | 45.9 | 49.5 | 48.7 | 41.0 | 34.0 | 30.6 | 24.8 | 35.7 |
| Mean | 30.0 | 35.2 | 40.2 | 45.9 | 52.5 | 60.0 | 66.5 | 66.2 | 57.4 | 48.2 | 39.0 | 31.5 | 47.7 |
| Extreme Temperature ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum | 61 | 65 | 76 | 90 | 94 | 97 | 104 | 108 | 98 | 89 | 73 | 59 | 108 |
| Minimum | -16 | -13 | 4 | 17 | 24 | 29 | 34 | 29 | 23 | 12 | -11 | -24 | -24 |
| Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monthly mean | 1.16 | . 90 | 1.18 | 1.24 | 1.64 | 1.56 | . 61 | . 94 | 1.04 | 1.00 | 1.32 | 1.19 | 13.78 |
| Extreme 24 hr . | 1.45 | 1.25 | . 79 | 1.10 | 1.33 | 1.24 | 1.06 | 1.59 | 1.00 | . 90 | . 90 | . 90 | 1.59 |
| Evaporation in inches |  |  |  | 3.17 | 4.65 | 6.10 | 7.44 | 6.49 | 4.18 | 2.70 |  |  | 34.73 |
| Average number of days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Temperature |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Maximum $90^{\circ}$ or more |  |  |  |  | . 4 | 2.1 | 8.4 | 9.0 | 2.0 |  |  |  | 21.8 |
| Maximum $32^{\circ}$ or less | 9.2 | 2.5 | . 5 |  |  |  |  |  |  | . 1 | 1.2 | 6.4 | 19.8 |
| Minimum $32^{\circ}$ or less | 24.9 | 20.3 | 20.0 | 13.3 | 4.1 | . 1 |  | . 1 | 2.9 | 13.0 | 17.3 | 24.1 | 140.1 |
| Minimum $0^{\circ}$ or less | 1.2 | . 4 |  |  |  |  |  |  |  |  | . 1 | 1.0 | 2.7 |
| Precipitation |  |  |  |  |  |  |  |  |  |  |  |  |  |
| . 01 inches or more | 11.0 | 9.5 | 10.9 | 10.8 | 10.8 | 8.9 | 4.5 | 5.3 | 5.9 | 7.4 | 12.3 | 11.2 | 108.4 |
| . 10 inches or more | 3.6 | 3.0 | 4.4 | 4.1 | 5.2 | 4.9 | 2.3 | 2.4 | 3.4 | 3.5 | 4.6 | 3.7 | 45.1 |
| . 50 inches or more | . 4 | . 1 | 2 | . 4 | . 7 | . 7 | . 1 | . 5 | . 4 | . 2 | . 2 | . 3 | 4.2 |
| 1.00 inches or more | . 1 |  |  | . 1 |  | . 1 |  | . 1 |  |  |  |  | . 3 |
| Degree Days |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Heating days @ $65^{\circ} \mathrm{F}$ | 1086 | 840 | 770 | 574 | 393 | 184 | 62 | 68 | 244 | 519 | 781 | 1040 | 6561 |
| Growing days @ $50^{\circ} \mathrm{F}$ | 0 | 1 | 7 | 45 | 138 | 308 | 510 | 503 | 243 | 68 | 7 | 0 | 1830 |

Total Monthly Precipitation (in inches)
Union, Oregon

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | . 28 | 1.22 | 1.50 | 1.08 | 2.01 | . 43 | . 00 | . 69 | . 65 | . 96 | 1.70 | 1.14 | 11.66 |
| 1962 | 1.21 | . 94 | . 68 | . 96 | 2.37 | . 29 | . 17 | . 18 | . 65 | 2.00 | . 82 | . 74 | 11.01 |
| 1963 | . 49 | 1.29 | 1.53 | 1.50 | 1.27 | 2.30 | . 38 | . 56 | 1.46 | . 51 | 1.07 | . 70 | 13.06 |
| 1964 | . 77 | . 22 | . 48 | 1.19 | . 64 | 2.90 | 1.15 | . 49 | 1.03 | . 43 | . 72 | 2.65 | 12.67 |
| 1965 | 3.59 | . 36 | . 20 | . 96 | 1.10 | 1.75 | . 90 | 3.33 | . 38 | . 12 | . 65 | . 06 | 13.40 |
| 1966 | . 78 | . 96 | . 79 | . 45 | . 65 | 1.09 | . 60 | . 91 | 1.14 | 1.11 | 1.55 | 2.30 | 12.33 |
| 1967 | . 88 | . 47 | 1.74 | 1.15 | 1.13 | 1.24 | . 11 | . 05 | . 36 | 1.69 | 1.09 | 1.27 | 11.18 |
| 1968 | . 52 | 1.30 | . 98 | . 32 | 1.07 | 1.37 | . 28 | 1.59 | 1.61 | 1.13 | 2.32 | 1.24 | 13.73 |
| 1969 | 1.21 | . 69 | . 32 | 2.40 | 1.87 | 2.61 | . 27 | . 00 | . 63 | 1.45 | . 71 | 1.27 | 13.43 |
| 1970 | 2.63 | . 61 | 1.44 | . 66 | 2.37 | 3.14 | . 70 | . 00 | 2.85 | 2.33 | 1.65 | . 79 | 19.17 |
| 1971 | 2.47 | . 82 | 1.05 | 1.14 | 2.29 | 2.00 | . 63 | . 44 | 1.64 | . 59 | 1.21 | 1.63 | 15.91 |
| 1972 | 1.46 | . 73 | 2.06 | . 74 | 1.09 | 1.96 | . 11 | . 61 | 1.38 | . 36 | 1.33 | 1.05 | 12.88 |
| 1973 | . 61 | . 21 | . 36 | . 14 | 1.65 | . 77 | . 08 | . 10 | 2.27 | 1.22 | 2.10 | 2.24 | 11.75 |
| 1974 | 1.00 | . 42 | 1.39 | 1.78 | . 80 | . 76 | 1.77 | . 16 | . 18 | . 23 | . 47 | 1.68 | 10.64 |
| 1975 | 2.53 | . 77 | . 84 | 1.37 | 1.37 | 1.36 | . 69 | 1.46 | . 17 | 1.82 | . 81 | 1.58 | 14.77 |
| 1976 | . 83 | 1.01 | . 60 | 2.34 | . 76 | . 65 | . 31 | 2.82 | . 28 | . 43 | . 55 | . 13 | 10.71 |
| 1977 | . 24 | . 69 | . 76 | . 44 | 3.84 | . 71 | . 21 | . 91 | 1.46 | . 51 | 2.03 | 2.32 | 14.12 |
| 1978 | . 92 | . 75 | 1.03 | 3.69 | 1.13 | . 60 | . 72 | 1.28 | 1.66 | . 18 | 1.57 | 1.66 | 15.19 |
| 1979 | . 47 | . 70 | . 93 | 1.85 | 1.32 | 1.76 | . 04 | 2.44 | . 32 | 1.19 | 1.18 | . 63 | 12.83 |
| 1980 | 1.15 | . 66 | 1.91 | 1.47 | 3.11 | 2.12 | . 81 | . 13 | 2.41 | 1.08 | . 89 | 1.39 | 17.13 |
| 1981 | 1.00 | 1.78 | 1.50 | . 85 | 2.45 | 2.94 | . 78 | . 01 | . 60 | 1.76 | 1.85 | 1.46 | 16.98 |
| 1982 | 1.77 | 1.45 | 1.18 | . 51 | . 93 | 1.31 | 2.88 | . 98 | 1.46 | 2.12 | . 81 | 1.41 | 16.81 |
| 1983 | 1.27 | 1.03 | 2.88 | 1.45 | 1.06 | 1.65 | 1.38 | 1.39 | . 56 | . 57 | 1.70 | 3.12 | 18.06 |
| 1984 | 1.34 | . 45 | 2.50 | 2.08 | 2.34 | 3.34 | . 60 | 2.41 | 1.26 | 1.80 | 1.54 | . 88 | 20.54 |
| 1985 | . 35 | . 29 | 35 | . 73 | 1.86 | 1.14 | . 80 | 1.35 | 1.57 | 1.21 | 2.21 | . 35 | 12.21 |
| 1986 | 1.18 | 3.03 | 1.11 | . 67 | 1.44 | . 33 | . 49 | . 31 | 1.33 | . 58 | 1.90 | . 15 | 12.52 |
| 1987 | . 60 | 1.65 | 1.33 | . 46 | 1.23 | 1.62 | 1.13 | . 05 | . 09 | . 00 | 1.03 | . 79 | 9.98 |
| 1988 | . 83 | 1.03 | 1.21 | 1.51 | 1.96 | 1.83 | . 03 | . 14 | . 58 | . 19 | 1.98 | . 46 | 11.75 |
| 1989 | 1.31 | . 91 | 1.70 | 1.28 | 1.33 | 1.25 | . 21 | 2.73 | 1.09 | . 98 | 1.05 | . 22 | 14.06 |
| 1990 | 1.25 | . 62 | . 96 | 2.12 | 2.63 | 1.52 | . 20 | . 72 | . 05 | 1.37 | 1.11 | . 52 | 13.07 |
| Mean | 1.16 | . 90 | 1.18 | 1.24 | 1.64 | 1.56 | . 61 | . 94 | 1.04 | 1.00 | 1.32 | 1.19 | 13.79 |
| Maximum | 3.59 | 3.03 | 2.88 | 3.69 | 3.84 | 3.34 | 2.88 | 3.33 | 2.85 | 2.33 | 2.32 | 3.12 | 20.54 |
| Minimum | . 24 | . 21 | . 20 | . 14 | . 64 | . 29 | . 00 | . 00 | . 05 | . 00 | . 47 | . 06 | 9.98 |
| StdDev | . 77 | . 57 | . 64 | . 76 | . 77 | . 85 | . 61 | . 96 | . 73 | . 66 | . 54 | . 78 | 2.64 |

## Dates of Spring and Fall Low Temperatures

Union, Oregon

| Year | Last Date in Spring of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  | First Date in Fall of Low Temperatures ( ${ }^{\circ} \mathrm{F}$ ) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 24 | 28 | 32 | 36 | 24 | 28 | 32 | 36 |
| 1961 | 7-Apr | 19-Apr | 5-May | 18-May | 24-Sep | 22-Sep | 7-Sep | 3-Sep |
| 1962 | 26-Apr | 4-May | 4-Jun | 19-Jul | 17-Nov | 7-Oct | 9-Sep | 23-Aug |
| 1963 | 3-Apr | 21-Apr | 28-Apr | 28-May | 26-Oct | 26-Oct | 13-Oct | 3-Sep |
| 1964 | 23-May | 23-May | 26-May | 28-Jun | 18-Oct | 19-Sep | 19-Sep | 20-Aug |
| 1965 | 3-Apr | 18-May | 18-May | 22-Jul | 17-Sep | 17-Sep | 30-Aug | 30-Aug |
| 1966 | 28-Apr | 23-May | 25-Jun | 25-Jun | 9-Oct | 9-Oct | 3-Oct | 30-Sep |
| 1967 | 16-Apr | 2-May | 26-May | 31-May | 2-Nov | 15-Oct | 13-Sep | 13-Sep |
| 1968 | 27-Apr | 5-May | 16-May | 12-Jun | 8-Oct | 2-Oct | 22-Sep | 3-Sep |
| 1969 | 11-Apr | 3-May | 16-May | 28-May | 5-Oct | 15-Sep | 6-Sep | 29-Aug |
| 1970 | 21-Apr | 14-May | 14-May | 31-May | 15-Oct | 14-Sep | 9-Sep | 9-Sep |
| 1971 | 3-Apr | 18-May | 18-May | 7-Jul | 18-Oct | 18-Sep | 15-Sep | 4-Sep |
| 1972 | 30-Apr | 30-Apr | 25-May | 26-May | 30-Oct | 29-Sep | 10-Sep | 7-Sep |
| 1973 | 8-Apr | 27-May | 27-May | 1-Jul | 3-Oct | 2-Oct | 16-Sep | 28-Aug |
| 1974 | 20-Mar | 13-May | 31-May | 26-Jun | 6-Oct | 3-Oct | 27-Sep | 12-Sep |
| 1975 | 29-Apr | 11-May | 25-May | 29-Jun | 24-Oct | 24-Oct | 20-Sep | 2-Sep |
| 1976 | 2-Apr | 21-May | 4-Jun | 27-Jun | 18-Oct | 15-Oct | 4-Oct | 27-Aug |
| 1977 | 20-Apr | 20-Apr | 29-May | 7-Jul | 3-Nov | 11-Oct | 17-Sep | 31-Aug |
| 1978 | 15-Mar | 13-Apr | 31-May | 31-May | 22-Oct | 13-Oct | 17-Sep | 16-Sep |
| 1979 | 19-Mar | 19-Apr | 30-May | 2 -Jul | 1-Nov | 30-Oct | 3-Oct | 1-Oct |
| 1980 | 31-Mar | 11-Apr | 16-Apr | 5-Jun | 22-Oct | 17-Oct | 29-Aug | 21-Aug |
| 1981 | 18-Mar | 14-Apr | 4-May | 8 -Jul | 21-Oct | 23-Sep | 23-Sep | 20-Sep |
| 1982 | 25-Apr | 5-May | 11-May | 8 -Jun | 19-Oct | 5-Oct | 15-Sep | 14-Sep |
| 1983 | 14-Apr | 16-Apr | 17-May | 16-Jul | 17-Oct | 20-Sep | 20-Sep | 10-Sep |
| 1984 | 5-Mar | 7-May | 22-May | 7-Jul | 16-Oct | 25-Sep | 25-Sep | 12-Sep |
| 1985 | 26-Apr | 13-May | 13-May | 9-Jun | 29-Sep | 23-Sep | 20-Sep | 16-Sep |
| 1986 | 30-Apr | 16-May | 23-May | 23-May | 12-Oct | 11-Oct | 22-Sep | 11-Sep |
| 1987 | 20-Apr | 20-May | 21-May | 23-Jun | 14-Oct | 10-Oct | 17-Sep | 16-Sep |
| 1988 | 9-Apr | 2-May | 7-May | 30-Jun | 27-Oct | 23-Oct | 18-Sep | 21-Aug |
| 1989 | 30-Mar | 11-Apr | 28-May | 31-May | 16-Oct | 4-Oct | 10-Sep | 10-Sep |
| 1990 | 30-Apr | 9-May | 16-May | 25-May | 7-Oct | 7-Oct | 7-Oct | 21-Sep |

Probabilities

| 10 | 18-Mar | 13-Apr | 4-May | 25-May | 2-Oct | 17-Sep | 6-Sep | 22-Aug |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20 | 30-Mar | 19-Apr | 12-May | 30-May | 6-Oct | 21-Sep | 9-Sep | 28-Aug |
| Median $(50 \%)$ | 12-Apr | 5-May | 21-May | 24-Jun | 17-Oct | 4-Oct | 17-Sep | 8-Sep |
| 80 | 27-Apr | 18-May | 29-May | 7-Jul | 26-Oct | 15-Oct | 25-Sep | 16-Sep |
| 90 | 30-Apr | 21-May | 31-May | 8-Jul | 1-Nov | 23-Oct | 3-Oct | 20-Sep |


[^0]:    Did not occur

[^1]:    Did not occur

