Climatological Data for August, 1909.

DISTRICT No. 12, COLUMBIA VALLEY.

EDWARD A. BEALS, District Editor.

TEMPERATURE.

The temperature averaged nearly 2° below normal in the Columbia River Basin in Washington and Oregon and about the same deficiency was experienced in the Puget Sound and coast drainage areas. Within the drainage basins of the principal tributaries of the Columbia River in Idaho, Montana, and Wyoming the temperature averaged slightly above normal, with the departures greatest in the southern and least in the northern portions of this territory. It was warmest in the bottom lands along the Columbia River from The Dalles, Oreg., east to Walla Walla, Wash., and very nearly as warm in the Snake River Valley from Huntington, Oreg., east to Pocatello, Idaho. In both of these regions the mean temperature was slightly above 70°. The coolest section of the district was along the coast and in the Puget Sound country where the mean temperature was 60° or slightly below that mark.

The only cool spell of the month culminated on the 27th or thereabout, at which time freezing temperatures occurred in the mountains, and frosts formed in many of the highland agricultural sections. The warmest period was from the 16th to the 20th, inclusive, and most of the stations reported their maximum temperatures as having occurred on some one of the dates within this period. The highest temperature in this district was 108°, on the 19th, at Troy, Mont., and the lowest was 18° on the 27th at Christmas Lake, Oreg.

PRECIPITATION.

But very few localities reported an excess in precipitation, and over a large area there was a marked deficiency. A small region centering about Pocatello, Idaho, experienced nearly four times as much rain as usual, most of which fell on the last two days of the month. Another and larger area with an excess of rain embraced the region covered by the windward slopes of the Olympic Mountains in northwestern Washington; over this area the excess amounted to nearly an inch. Heavy rains on the 25th and 26th in the northern part of Whatcom County, Washington, caused the precipitation in that locality to be 1.66 inches above the normal.

In all that portion of the Columbia River Valley beginning at the International Boundary and extending to the point where the river passes through the gorge in the Cascade Mountains either no rain fell or else the amount was so small as to be barely measurable and consequently of little benefit. Bordering this region more rain fell, but the amount was far below normal and it is estimated that droughty conditions prevailed during the greater part of the month in nine-tenths of the area covered by the district. The rainfall was poorly distributed and came in local showers at irregular intervals, and there were no days when the precipitation was general over a large area. The drought, although severe and widespread, did no material harm as the rains of the previous month had wet the soil to a good depth and there was sufficient moisture in the ground to mature the staple crops.

The greatest monthly rainfall was 4.26 inches at Clearwater, Wash., a station in the foothills of the Olympic Mountains, and the greatest twenty-four-hour fall was 2.80 inches at the same station on the 25th. At Rupert, Idaho, in the upper Snake River Valley, 0.47 of an inch of rain fell on the 22d in about twenty minutes, and so far as known the rate of fall during this downpour was the highest in the district. No snow fell at any of the reporting stations and there were no damaging hailstorms.

August was a quiet month in this district. There were no severe storms and there was scarcely any interruption to outdoor work on account of inclement weather. Freezing temperatures and frost occurred over a wide area on the mornings of the 27th and 28th which was unusually early in the season for such cold weather. In the low agricultural valleys where frost formed it was too light to be damaging and, in the higher agricultural sections where the frost was heavy, the season was so far advanced that the staple crops escaped injury. The principal streams fell steadily, but irrigation water held out well and there was a sufficient amount for all practical purposes.

It is believed that forest fires were not so numerous as usual, but by the third decade the smoke from them had destroyed the visibility of distant objects, and the atmosphere over a wide extent of territory had assumed a hazy appearance. There were but few thunderstorms in the Coast and Cascade mountains, and consequently not many trees were set on fire by lightning and this fact, combined with the enforcement of stringent laws compelling campers and others to extinguish their fires before leaving the grounds, operated to decrease the fire losses in the standing timber of the Columbia River drainage area. Also the work of controlling and putting out fires after they have started is conducted more efficiently than formerly.

TABLE 1.—*Climatological data for August, 1909. District No. 12, Columbia Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Montana.																				
Anaconda	Deer Lodge	5,300	8	63.0	.....	90	14†	31	28	44	0.62	.....	0.28	0.0	6	22	6	3	.....	C. D. Demond.
Bison Mountain	Powell	7,240	.....	.....	.....	.....	.....	.....	.....	.....	0.95	.....	0.72	0.0	2	23	8	0	.....	C. H. Anderson.
Columbia Falls	Flathead	3,100	15	60.9	− 1.5	96	14	27	28	56	0.10	− 1.42	0.10	0.0	1	23	6	2	sw.	Mrs. I. M. Kennedy.
Como	Ravalli	.....	2	62.2	.....	90	10†	33	28	43	0.19	.....	0.10	0.0	4	26	3	2	.....	Hiram Platt.
Darby	...do	3,825	.....	.....	.....	.....	.....	.....	.....	.....	0.13	.....	0.05	0.0	3	19	9	3	.....	W. A. Kerlee.
Dayton	Flathead	2,800	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Charles M. Lawson.
East Anaconda	Deer Lodge	5,500	4	64.6	.....	89	14	38	28	37	0.64	.....	0.38	0.0	4	22	6	3	w.	C. D. Demond.
Fortine	Flathead	2,975	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mike Petery.
Hamilton	Ravalli	3,575	7	66.4	.....	91	10†	36	28	42	0.17	.....	0.12	0.0	2	21	6	4	w.	J. B. Currie.
Hat Creek	Powell	6,000	.....	.....	.....	.....	.....	.....	.....	.....	0.64	.....	0.45	0.0	2	23	6	2	w.	M. K. Landreth.
Jocko	Missoula	3,100	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	George W. Robbins.
Kalispell	Flathead	2,965	11	61.7	− 1.2	89	14	35	28	42	0.11	− 0.78	0.09	0.0	3	25	3	3	w.	U. S. Weather Bureau.
Lost Creek	Deer Lodge	5,200	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Frank Henault.
Missoula	Missoula	3,225	26	65.8	+ 2.9	95	14	34	28	52	0.34	− 0.47	0.28	0.0	2	.....	.....	.....	ne.	U. S. Weather Bureau.
Ophir	Powell	8,800	.....	.....	.....	.....	.....	.....	.....	.....	1.12	.....	0.36	0.0	7	24	6	1	w.	E. S. Wilton.
Ovando	...do	4,207	11	56.0	− 2.8	87	20	26	28	50	0.45	− 0.36	0.25	0.0	3	2	29	0	w.	S. B. Muchmore.
Philipsburg[a]	Granite	5,275	6	61.4	.....	91	14	25	28	53	0.60	.....	0.22	0.0	4	18	8	0	sw.	Prof. G. T. Bramble.
Pipestone Pass	Jefferson	7,000	.....	.....	.....	.....	.....	.....	.....	.....	1.06	.....	0.37	0.0	7	19	12	0	w.	Mrs. Th. Kiermeyer.
Plains	Sanders	2,475	11	64.4	+ 0.3	92	14	36	28	45	T.	− 0.88	T.	0.0	0	28	1	2	sw.	M. H. Pierce.
Pleasant Valley	Flathead	3,500	3	55.0	.....	99	19	23	28	70	0.12	.....	0.10	0.0	2	28	0	3	.....	A. D. Stillman.
Polson	...do	2,920	2	65.4	.....	92	12	35	28	37	0.00	.....	0.00	0.0	0	.....	.....	.....	.....	F. P. Brown.
St. Ignatius[a]	Missoula	2,700	1	63.8[b]	.....	96	14	30[b]	28	54[b]	0.09	.....	0.03	0.0	4	20	8	2	.....	U. S. Reclamation Service
St. Regis	...do	2,650	.....	61.4	.....	97	14	28	30	66	0.19	.....	0.12	0.0	2	14	17	0	ne.	R. D. Lee.
Saltese	...do	3,600	.....	.....	.....	.....	.....	.....	.....	.....	0.30	.....	0.30	0.0	1	30	0	1	w.	E. K. Tarbox.
Snowshoe	Flathead	4,500	3	58.5	.....	84	14†	35	6†	38	0.82	.....	0.72	0.0	3	27	3	1	w.	J. S. Riter.
Troy	...do	1,880	15	64.2	+ 1.2	108	19	29	1†	67	0.32	− 0.57	0.32	0.0	1	30	0	1	0	W. E. Milnor.
Upper Lake McDonald	...do	3,200	3	.....	.....	.....	.....	.....	.....	.....	0.20	.....	0.10	0.0	2	.....	.....	.....	s.	F. F. Liebig.
Woodville	Jefferson	6,376	.....	.....	.....	.....	.....	.....	.....	.....	0.74	.....	0.33	0.0	6	18	12	1	sw.	Anna Kinman.
Wyoming.																				
Afton	Uinta	6,200	.....	61.0	.....	86	17†	28	24†	50	1.93	.....	0.80	0.0	10	16	8	7	sw.	A. V. Call.
Alta	...do	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Lucy Brown.
Bedford	...do	5,900	10	60.2	+ 1.1	85	14	26	28	50	1.41	− 0.16	0.52	0.0	6	23	7	1	w.	C. G. Heiner.
Snake River	Yellowstone Park	7,000	3	58.2	.....	89	10	28	28	50	1.10	.....	0.30	0.0	5	17	14	0	s.	U. S. Army.
Nevada.																				
San Jacinto	Elko	.....	5	60.2	.....	91	14	29	28	57	1.29	.....	0.72	0.0	4	18	5	8	sw.	
Idaho.																				
Albion	Cassia	.....	7	67.8	+ 0.4	95	12†	27	28	62	1.14	− 0.67	0.55	0.0	6	19	10	2	w.	G. A. Asline.
Almo	...do	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.02	.....	1.00	0.0	4	21	8	2	s.	Wm. L. Eames.
Bear Valley	Boise	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Francis Wallis.
Blackfoot	Bingham	4,503	13	68.6	+ 1.3	95	14	32	28	52	1.40	− 0.62	0.69	0.0	7	21	9	1	sw.	E. A. Dowd.
Blanche[a]	Lincoln	.....	.....	74.2	.....	103	20	40[b]	5	53[b]	0.10	.....	0.10	0.0	1	.....	.....	.....	.....	Solon A. Bray.
Bogus Creek	Boise	4,200	.....	.....	.....	.....	.....	.....	.....	.....	0.10	.....	0.06	0.0	2	23	8	0	.....	F. P. Ingraham.
Boise	Ada	2,770	24	72.8	+ 1.0	99	19	45	28	44	0.01	− 0.15	0.01	0.0	1	25	4	2	nw.	U. S. Weather Bureau.
Bonanza	Custer	6,600	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Emma Walter.
Bonners Ferry	Bonner	1,850	3	63.0	+ 0.8	95	20	30	28	53	0.13	− 0.95	0.13	0.0	1	27	4	0	sw.	W. H. Heideman.
Boulder Mine	Boise	4,800	.....	.....	.....	.....	.....	.....	.....	.....	0.15	.....	0.09	0.0	4	21	7	3	.....	Patrick Moriarty.
Buhl	Lincoln	3,800	4	73.5	+ 1.6	104	20	40	27	50	0.15	− 0.30	0.15	0.0	1	29	0	2	.....	Dr. D. P. Albee.
Burke	Shoshone	4,082	3	57.0	+ 0.7	88	14†	31	6†	46	0.30	− 1.18	0.27	0.0	2	26	4	1	sw.	W. A. Hall.
Caldwell	Canyon	2,372	5	70.2	+ 0.9	98	19	36	28	52	T.	− 0.30	T.	0.0	0	27	3	1	w.	W. J. Boone.
Camas	Fremont	4,815	.....	68.5	.....	97	14†	37	24	51	1.40	.....	0.50	0.0	6	14	11	6	sw.	Ednah Faulkner.
Cambridge	Washington	2,651	14	71.2[e]	+ 0.1	99[e]	29	38[e]	28	54[e]	0.00	− 0.45	0.00	0.0	0	.....	.....	.....	.....	C. H. Shepherd.
Chesterfield	Bannock	5,424	13	65.2	+ 5.0	95	4	28	24†	60	1.34	+ 0.26	0.34	0.0	8	16	11	4	.....	Chas. L. West.
Clawson	Fremont	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.42	.....	0.55	0.0	7	25	4	2	.....	E. J. Hopkins.
Cœur d'Alene	Kootenai	2,157	17	66.5[d]	0.0	96[d]	19	38[d]	6	47[d]	T.	− 0.66	T.	0.0	0	.....	.....	.....	.....	Jas. T. Scott.
Culdesac	Nez Perce	1,520	.....	67.7	− 1.1	103	19	38	6†	51	T.	− 0.14	T.	0.0	0	27	4	0	.....	R. R. Richmond.
Dent	...do	1,350	4	67.1	0.0	101	9†	35	28	58	T.	− 0.98	T.	0.0	0	27	4	0	.....	Emil Schuessler.
Driggs	Fremont	6,097	3	62.2	+ 3.3	84	12†	31	24†	49	0.90	− 0.85	0.55	0.0	4	20	9	2	s.	Walter H. Durrant.
Edie	...do	.....	.....	61.6	.....	85	19	34	24†	42	0.85	.....	0.35	0.0	4	29	2	0	s.	Geo. B. Edie.
Emmett	Canyon	2,350	3	73.5	+ 3.0	101	19	43	27	54	0.00	− 1.37	0.00	0.0	0	26	2	3	w.	E. L. Marvin.
Forney	Lemhi	.....	13	60.8	+ 1.5	95	11	22	28	58	0.78	+ 0.05	0.23	0.0	7	19	11	1	sw.	E. P. Treloar.
Garnet	Elmore	2,575	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mrs. Ines H. Davis.
Gilbert	Nez Perce	3,030	.....	63.6	.....	88	19	38	28	38	T.	.....	T.	0.0	0	27	0	3	nw.	J. B. Loomis.
Glenns Ferry	Elmore	2,569	2	75.4	0.0	107	20	36	28	61	0.19	− 0.11	0.15	0.0	3	27	3	1	nw.	I. E. Perkins.
Grand Forks	Shoshone	.....	.....	57.1	.....	93	19	26	28	62	0.35	.....	0.35	0.0	1	25	6	0	n.	H. F. Kottkey.
Grandview	Owyhee	.....	.....	75.8[b]	.....	101	19	34[d]	28	56[d]	T.	.....	T.	0.0	0	22	7	2	nw.	N. G. Massey.
Guffey	do	2,381	.....	77.0	.....	105	19	44	28	49	0.01	.....	0.01	0.0	1	31	0	0	w.	F. N. Perry.
Hailey	Blaine	5,347	7	68.6	+ 0.7	95	19	39	25†	51	0.17	0.00	0.14	0.0	2	23	6	2	sw.	U. S. Forest Service.
Henry	Bannock	.....	.....	62.3	.....	87	14†	25	28	56	1.94	.....	0.56	0.0	14	24	4	3	w.	N. W. Irsfield.
Hotspring	Owyhee	2,752	4	73.6	+ 1.3	100	9	43	28	44	T.	− 0.25	T.	0.0	0	26	3	2	.....	J. M. Waterhouse.
Idaho City	Boise	4,000	11	.....	.....	.....	.....	.....	.....	.....	0.49	+ 0.11	0.27	0.0	2	.....	.....	.....	.....	Mrs. Emma Hammer.
Idaho Falls	Bingham	4,742	14	67.4	+ 0.2	92	19	35	28	49	0.77	− 0.05	0.42	0.0	5	18	5	8	ne	Dr. T. M. Bridges.
Indian Valley	Washington	2,999	.....	.....	.....	.....	.....	.....	.....	.....	0.15	.....	0.10	0.0	2	28	1	2	n.	W. E. Henke.
Irwin	Bingham	.....	.....	.....	.....	.....	.....	34	27	.....	1.02	.....	0.60	0.0	6	16	7	8	.....	Miss Martha A. Beam.
Kellogg	Shoshone	2,330	5	61.0[a]	− 0.9	95[b]	19	31[a]	28	55[b]	0.23	− 0.69	0.23	0.0	1	29	0	2	sw.	W. McM. Huff.
Kooskia	Idaho	1,261	.....	68.4	.....	105	19	35	28	60	0.83	.....	0.66	0.0	3	20	9	2	w.	U. S. Forest Service.
Lake	Fremont	6,700	17	62.4	+ 4.9	85	17†	34	24	44	1.25	+ 0.42	0.75	0.0	2	.....	.....	.....	sw.	J. Sherwood.
Lakeview	Bonner	2,250	12	61.3	− 2.3	90	14†	39	28	45	0.05	− 0.93	0.05	0.0	1	25	4	2	sw.	E. D. Faust.
Landore	Washington	5,300	6	60.4	+ 1.2	89	19	30	27	47	0.05	− 0.50	0.03	0.0	2	25	6	0	.....	Mrs. Emma L. Brown.
Lardo	Boise	5,050	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	E. W. York.
Lewiston	Nez Perce	757	15	71.8	− 1.7	105	19	45	28	47	T.	− 0.37	T.	0.0	0	26	2	3	e.	U. S. Weather Bureau.
Little Camas	Elmore	.....	.....	.....	.....	.....	.....	.....	.....	.....	T.	.....	T.	0.0	0	19	10	2	w.	Solon McCoy.
Lost River	Blaine	5,700	15	.....	.....	.....	.....	.....	.....	.....	0.15	− 0.25	0.15	0.0	1	.....	.....	.....	.....	B. B. Harger.
Lowry	Owyhee	.....	2	67.4	.....	100	19	32	28	60	0.13	− 0.10	0.13	0.0	1	24	5	2	nw.	W. D. Winter.
Mackay	Custer	5,897	2	63.8	+ 3.2	92	12†	31	1†	54	0.50	− 0.02	0.25	0.0	5	20	8	3	n.	U. S. Forest Service.
Meadows	Washington	3,950	7	63.9	+ 0.7	96	19	27	28	58	T.	− 0.49	T.	0.0	0	22	9	0	.....	Chas. A. Hackney.
Milner	Twin Falls	4,097	6	72.6	+ 2.0	100	14	40	24†	45	0.07	− 0.17	0.04	0.0	3	24	6	1	w.	R. A. Hanson.
Moscow	Latah	2,748	17	67.6	+ 1.9	98	19	39	27	43	T.	− 0.84	T.	0.0	0	29	2	0	w.	University of Idaho.
Mountainhome	Elmore	3,150	4	71.2	+ 1.6	103	20	36	28	58	T.	− 0.22	T.	0.0	0	24	4	3	nw.	Mrs. Ellen Marion.
Murtaugh	Twin Falls	.....	3	69.4	+ 2.4	95[a]	21	33	28	55	0.43	+ 0.04	0.32	0.0	2	24	6	1	w.	J. E. Steinour.
Nez Perce	Nez Perce	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. W. Mitchell.
Oakley	Casia	4,191	17	72.4	+ 2.8	99	26	36	28	56	1.46	+ 0.80	0.98	0.0	4	11	18	2	s.	John Adams.
Orofino	Nez Perce	1,027	5	66.8	− 2.4	98	19	36	28	58	0.04	− 0.54	0.03	0.0	2	26	5	0	.....	Geo. Alteneder.
Payette	Canyon	2,159	16	72.0[a]	− 0.8	102[a]	18	37[a]	28	55[a]	T.	− 0.25	T.	0.0	0	25	3	3	n.	E. F. Allen.
Pebble	Bannock	.....	.....	62.2	.....	94	14	26	28	60	1.83	.....	0.83	0.0	11	15	15	1	sw.	Arthur P. Say.
Pierson	Custer	7,000	.....	.....	.....	.....	.....	.....	.....	.....	1.35	.....	0.72	0.0	5	24	3	4	s.	David P. Clarke.
Pleasant Valley	Ada	3,000	2	70.6	+ 0.3	101	29	38	28	53	0.22	− 0.38	0.21	0.0	2	28	0	3	nw.	C. E. Friedrich.
Pocatello	Bannock	4,483	11	71.8	+ 1.3	93	14	39	28	48	3.07	+ 2.51	1.29	0.0	9	17	9	5	se.	U. S. Weather Bureau.

TABLE 1.—*Climatological data for August, 1909. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Idaho—Cont'd.																				
Pocatello Nursery	Bannock		3	65.8	+ 0.4	91	18†	29	28	58	1.84	+ 0.33	1.22	0.0	5	21	9	1	sw.	Peter F. Wrensted.
Poplar	Bingham			66.8		92	20	32	29	56	1.24		0.45	0.0	7	15	15	1	sw.	Stuart Lee.
Poplars	Canyon	2,425	10																	N. S. Dils.
Porthill	Bonner	1,665	17	62.0	+ 2.0	90	14†	36	28	44	T.	− 0.97	T.	0.0	0	29	1	1	sw.	H. A. French.
Pyle Creek	Boise										0.04		0.04	0.0	1	24	1	6	ne.	Walter L. Cole.
Rupert	Lincoln	4,204	3	71.4	+ 2.7	97	1	36	28	52	0.82	+ 0.12	0.47	0.0	4	25	3	3	w.	Will Parry.
St. Maries	Kootenai	2,263	13	61.8	− 2.8	95	19	31	28	51	0.14	− 0.82	0.14	0.0	1	25	2	4	se.	J. S. Turnbull.
Salem	Fremont	5,000	5								0.36	− 0.27	0.17	0.0	4				nw.	Geo. H. A. Harris.
Salmon	Lemhi	4,040	4	66.4	+ 2.6	94	14†	31	28	55	0.68	− 0.22	0.34	0.0	5	23	7	1	w.	E. K. Abbott.
Salmon River Dam	Twin Falls		2	72.8	+ 2.2	96	20	40	28	42	0.78	+ 0.06	0.53	0.0	4	22	5	4	n.	Arch M. Gilbert.
Sheep Hill	Boise	5,000									0.13		0.08	0.0	2					Clifford M. Gardner.
Shoshone	Owyhee	6,200	3																	O. A. Petitt.
Silver City	Lincoln	3,968									0.10		0.07	0.0	3				w.	A. O. Treeman.
Soldier	Blaine	5,140	13	64.9	+ 1.1	94	6	38	14	46	0.85	+ 0.44	0.50	0.0	3	24	6	1	w.	W. W. Leek.
Standrod	Cassia		5	68.6[a]		90	12	39[b]	28	44[b]	1.24		1.00	0.0	5	23	6	2	s.	T. B. Jones.
Sugar	Fremont		2	64.4		89	18	34	28	51	0.75		0.41	0.0	5	22	7	2	sw.	Geo. F. Webb.
Sunnyside	Elmore			72.4		103	20	43	24†	52	T.		T.	0.0	0	28	3	0	nw.	E. A. Wilmot.
Tilden	Bingham	4,420		68.8		96	14†	30	28	53	1.10		0.60	0.0	3	18	11	2	sw.	Mrs. W. A. Edwards.
Twin Falls	Twin Falls	3,825	4	68.6		95	12	32	28	58	0.30		0.20	0.0	5	20	11	0	nw.	Clyde C. Anderson.
Vernon	Fremont		12																	A. M. Slatery.
Wallace	Shoshone	2,728	2	61.2		95	31	34	28	51	0.22		0.19	0.0	3				e.	U. S. Weather Bureau.
Warfield	Blaine	6,386		60.2[c]		87[c]	19	31[c]	24	48[c]	0.41		0.31	0.0	2	28	2	1		Wm. H. Warfield.
Wendell	Lincoln	3,400		73.6[c]		103[c]	20	37[c]	28	58[c]	0.13		0.13	0.0	1				w.	Chas. L. Dingler.
Washington.																				
Aberdeen	Chehalis	162	18	58.6	− 2.7	86	28	40	5	34	1.26	+ 0.30	0.55	0.0	7	11	19	1	w.	C. Weatherwax.
Anacortes	Skagit	60	15					37	17		0.26	− 0.62	0.15	0.0	3	27	0	4		Douglass Allmond.
Baker	do	200	3	63.4		92	28	40[f]	5	41	0.85		0.49	0.0	4	17	4	10		Robt. M. White.
Bellingham	Whatcom	60	14	60.4	− 0.2	85	15†	38	28	47	0.98	− 0.05	0.61	0.0	4	23	4	4		Sanford B. Mayhew.
Blaine	do	53	12	58.3	− 1.7	81	19	38	6	38	2.47	+ 1.66	1.42	0.0	7	17	10	4	w.	G. A. Ruring.
Bremerton	Kitsap										0.17	− 0.73	0.08	0.0	3					U. S. Navy Yard.
Cedar River	King		2								0.51		0.36	0.0	4	19	3	9		Geo. Landsburg.
Centralia	Lewis	212	16	62.0	− 2.1	89	7	35	5	50	0.20	− 0.56	0.15	0.0	2	21	5	5	w.	I. S. Turner.
Cheney	Spokane	2,351	10			99	19				0.00	− 0.77	0.00	0.0	0	31	0	0		G. A. Fellows.
Chopaka	Okanogan	1,200	1	66.0		98	19†	34	28	56	0.03		0.03	0.0	1	13	9	9	nw.	Mrs. J. S. Myers.
Clearbrook	Whatcom	140	6																	Geo. Gibbs.
Clearwater	Jefferson	135	13	56.8	− 4.3	72	18	43	21	26	4.28	+ 2.44	2.80	0.0	12	22	6	3		Alfred Ritchie.
Clealum	Kittitas	1,930	10	61.0	− 1.2	97	18	28	28	57	0.06	− 0.33	0.06	0.0	1	27	4	0	sw.	J. A. Balmer.
Colfax	Whitman	2,300	20	61.8	− 3.7	97	19	31	6	54	0.00	− 0.61	0.00	0.0	0					W. H. James.
Colville	Stevens	1,635	9	63.8	− 2.4	99	19	31	28	59	T.	− 0.75	T.	0.0	0	20	10	1	sw.	W. L. Sax.
Conconully	Okanogan	2,300	9	64.0	− 0.5	92	18†	35	5	48	T.	− 0.69	T.	0.0	0	23	7	1	s.	Wm. Baines.
Coupeville	Island	150	13																	W. T. Howard.
Crescent	Lincoln	2,250	9	64.2	− 1.6	98	19	35	28	52	0.03	− 0.72	0.03	0.0	1	29	1	1	sw.	Otto Wollweber.
Davenport	do	2,450		64.3		96	19	34	27	44	0.02		0.02	0.0	1	29	2	0	sw.	W. H. Reed.
Dayton	Columbia	1,700	23	67.8	− 0.6	96	19	40	28	42	0.18	− 0.32	0.18	0.0	1	27	3	1	sw.	W. W. Hendron.
Detroit	Mason	31	1	62.5		88	18	41	6	42	0.42		0.19	0.0	4	24	4	3	s.	Walter O. Eckert.
Dixie	Walla Walla	5,000									0.20		0.20	0.0	1	25	3	3	sw.	T. Z. Andrews.
Duckabush	Jefferson	380	1	60.8		86	17†	38	29	46	0.34		0.20	0.0	4	14	7	10	sw.	Emery J. Finch.
East Sound	San Juan	500	14																	Benj. E. Harrison.
Ellensburg	Kittitas	1,571	21	64.8	− 0.9	96	18	33	28	53	0.00	− 0.25	0.00	0.0	0	30	1	0	nw.	R. Lee Barnes.
Ephrata	Grant	1,265	6																	D. Chaffee.
Forks	Clallam	480																		C. W. Palmer.
Fort Simcoe	Yakima	1,427	15	72.0	− 0.8	100	19	43[g]	7	47	0.00	− 0.21	0.00	0.0	0	29	2	0		Dr. G. A. Landes.
Goat Lake	Snohomish	2,900									3.63		2.00	0.0	5					C. M. Mackintosh.
Gold Creek	Yakima	2,600									0.00		0.00	0.0	0	31	0	0		John W. Anderson.
Goldendale	Klickitat	1,600	3	66.0		99	18	38	5	50	0.00		0.00	0.0	0	24	7	0	w.	Klickitat Abstract Co.
Granite Falls	Snohomish	397	6								0.96	− 0.55	0.70	0.0	4	20	5	6	nw.	C. H. Cleaver.
Hatton	Adams	1,100	4	68.6		106	19	38	10†	54	0.00		0.00	0.0	0	26	4	1	sw.	Dr. A. V. Marion.
Huntsville	Columbia	1,400	1								0.04		0.04	0.0	1	30	1	0		Dr. B. Hill.
Irene Mount	Okanogan	3,015									0.03		0.02	0.0	2	21	9	1	s.	Mrs. E. W. Wheeler.
Kennewick	Benton	367	14	70.4	− 4.8	103	19	43	5†	53	T.	− 0.22	T.	0.0	0	25	6	0		L. W. Soth.
Kettle Falls	Stevens	1,265		66.2		98	19	38	28	50	0.00		0.00	0.0	0	29	2	0		Dr. A. E. Baldwin.
Kiona	Benton	430	4	70.2		101	19	40	28	50	0.00		0.00	0.0	0	30	1	0	sw.	Dr. F. S. Hedger.
Kosmos	Lewis	775	3	61.6		93	18	36	16	55	0.14		0.10	0.0	2	6	25	0	ne.	Hon. J. A. Ulsh.
La Center	Clarke	250	12	61.7	− 2.9	92	18	38	21	48	0.14	− 0.89	0.12	0.0	2	24	7	0	sw.	Joseph Brothers.
La Crosse	Whitman	1,400		66.8		104	19	34	16	56	0.04		0.04	0.0	1	29	0	2	w.	M. E. Schreck.
Lake Clealum	Kittitas	2,171									T.		T.	0.0	0	14	10	7	nw.	U. S. Reclamation Service
Lake Kachess	do	2,235		60.0		93	18	31	28	47	0.16		0.16	0.0	1	21	9	1		Do.
Lake Keechelus	do	2,479	1								0.36		0.28	0.0	2	17	3	11		Do.
Lakeside	Chelan	1,116	18	70.9	− 1.5	100	19	45	28	40	T.	− 0.38	T.	0.0	0	18	12	1	w.	W. H. Van Meter.
Laurel	Klickitat	1,900									0.00		0.00	0.0	0	26	5	0	w.	L. S. Strout.
Lester	King	1,614	5	59.4		94	18	31	5	52	0.30		0.20	0.0	2	27	0	4	w.	W. W. Clabaugh.
Lone Tree	Chealis	9		59.2		79	28	50	6†	25	1.16		0.46	0.0	9	11	8	12	nw.	U. S. A. Engineers Corps.
Longmire Spring	Pierce	2,800																		U. S. Forest Service.
Lost Creek	Okanogan	3,125									0.00		0.00	0.0	0	28	2	1	s.	P. H. Leese.
Lucerne	Chelan	1,100	2																	Barbara Schearer.
Lyle (Pine Hill)	Klickitat	600	16	66.4	− 2.7	101	18	36	19	55	T.	− 0.26	T.	0.0	0	26	2	3	w.	Thomas J. Whitcomb.
McCumber's Ranch	Yakima	2,182									0.00		0.00	0.0	0	21	8	2	w.	Mrs. Mary McCumber.
Mottinger	Benton	307	9	72.8	− 2.2	100	19†	46	6	46	0.00	− 0.23	0.00	0.0	0	30	0	1	w.	G. H. Mottinger.
Mount Pleasant	Skamania	650	9	63.2	− 1.8	87	18	42	21	37	0.63	− 0.34	0.45	0.0	2	23	6	2	w.	F. M. Grout.
Moxie	Yakima	1,000	17	67.3	− 2.5	101	19	36	28	54	0.00	− 0.21	0.00	0.0	0	26	4	1	w.	H. B. Scudder.
North Head	Pacific	211	7	56.6	− 1.3	84	28	50	31	29	0.35	− 0.21	0.12	0.0	6	11	9	11	nw.	U. S. Weather Bureau.
Northport	Stevens	1,950	10	59.8[c]	− 1.6	94[b]	19	26[c]	28	58	T.	− 1.43	T.	0.0	0	18	9	4		A. L. Hager.
North Yakima	Yakima	1,076																		Albert Bender.
Nutland	Klickitat			72.5		100	19	48	6†	44	0.00		0.00	0.0	0					J. R. Shepard.
Odessa	Lincoln	1,540	6	67.0		102	19	38	27	51	0.00		0.00	0.0	0	21	10	0	sw.	Wm. U. Neeley.
Olga	San Juan	50	19	57.6	− 1.6	75	16†	41	19	33	0.90	+ 0.08	0.35	0.0	4	21	7	3	nw.	Cecil S. Willis.
Olympia	Thurston	200	31	60.8	− 1.8	89	13	37	6	47	0.21	− 0.43	0.11	0.0	3	20	5	6	nw.	M. O'Conner.
Omak	Okanogan										T.		T.	0.0	0	26	5	0	s.	Wm. G. Tait.
Oroville	do	922		71.2		102	19	42	27	50	T.		T.	0.0	0	29	1	1	n.	A. M. Dufield.
Peola	Garfield	5,000									0.16		0.15	0.0	2	28	2	1	nw.	Samuel Gruell, sr.
Pomeroy	do	1,500	17			95[1]	9	40[1]	6†	47[1]						19[1]			w.[1]	Peter McClung.
Port Crescent	Challam	259	14	53.2	− 3.0	71	28	38	21	28	1.34	+ 0.64	1.08	0.0	5	9	18	4	nw.	U. S. Weather Bureau.
Port Townsend	Jefferson	80	19	59.0	− 2.3	79	18	46	5†	28	0.19	− 0.53	0.14	0.0	2	17	7	7	w.	Frank Plummer.
Pullman	Whitman	2,550	17	65.6[c]	− 1.2	100[c]	19	36[c]	6	48	0.05	− 0.68	0.05	0.0	1	25[c]	1[c]	2[c]	w.	State Agricultural Col.
Quiniault	Chehalis	300	2	60.2		86	28	40	5†	42	3.19		1.60	0.0	4	13	15	3	w.	A. V. Higley.
Republic	Ferry	2,628	9	60.0[g]	− 3.4	95	18	30[g]	28	56	T.	− 0.52	T.	0.0	0	28	2	1	nw.	Geo. B. Stocking.
Rex Creek	Chelan	1,135	2																	James W. Nicol.

TABLE 1.—*Climatological data for August, 1909. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, .01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Washington—Cont'd.																				
Ritzville	Adams	1,825	10																	Agent, No. Pac. Ry.
Rock Lake	Whitman	1,750	3	66.6		100	19	34	27	44	0.00		0.00	0.0	0	27	0	4	s.	P. M. Ramsey.
Rosalia	do	2,425	17	66.2	+ 1.1	97	19	41	6†	42	0.08	− 0.65	0.08	0.0	1	28	2	1	sw.	Hans Mumm.
Russell's Ranch	Yakima	2,870									T.		T.	0.0	0	26[a]	0[a]	4[a]	sw.	John Russell.
Seattle (1)	King	123	18	61.6	− 1.5	79	7	51	16	28	0.27	− 0.22	0.22	0.0	4	12	11	8	n.	U. S. Weather Bureau.
Seattle (2)	do			61.6		83	18	45	14	30	0.39		0.16	0.0	5	22	3	6	nw.	Univ. of Washington.
Sedro-Wooley	Skagit	38	12	60.4	− 1.9	88	7	34	30	51	0.35	− 1.20	0.19	0.0	4	19	11	1		H. L. Devin.
Sixprong	Klickitat	1,240	2	71.4		102	19	41	16	47	T.		T.	0.0	0	27	2	2	sw.	C. E. Comstock.
Skagit Power Dam	Whatcom			61.6		89	29	46	27†	39	2.05		0.95	0.0	4	15	0	16		Skagit Power Co.
Snohomish	Snohomish	50	15	59.2	− 3.2	82	13	40	5	39	0.45	− 0.60	0.31	0.0	4	19	2	10	nw.	Irving B. Vestal.
Snoqualmie Falls	King	667	10	61.8	− 1.7	87	17	40	5†	46	0.91	− 0.65	0.52	0.0	5	22	0	9		O. N. Wiswell.
Snyder's Ranch	Okanogan	2,200									0.05		0.05	0.0	1	23	6	2		George M. Snyder.
South Bend	Pacific	16	14																	John L. Stevens.
Spokane	Spokane	1,943	28	66.7	− 1.2	97	19	44	27	44	0.01	− 0.47	0.01	0.0	1	22	8	1	sw.	U. S. Weather Bureau.
Stehekin	Chelan	1,100	2																	M. E. Field.
Stokes Ranch	Okanogan	2,670																		Amos Stokes.
Sullivan Lake	Stevens	2,700																		Mrs. Jennie D. McAbee.
Sumner	Pierce	77	1	60.4[a]		89	18†	35	28	54				0.0		16[a]	6[a]	8[a]	n.	H. E. Thompson.
Sunnyside	Yakima	740	14	66.2	− 3.9	100	19	38	27†	51	0.00	− 0.18	0.00	0.0	0	28	3	0	w.	U. S. Reclamatien Service
Tacoma	Pierce	213	23	61.6	− 1.4	79	18	47	16	29	0.33	− 0.37	0.18	0.0	4	16	11	4	n.	U. S. Weather Bureau.
Tatoosh Island	Clallam	86	24	54.4	− 0.9	64	28	48	31	13	2.97	+ 0.86	1.66	0.0	14	8	9	14	s.	Do.
Tieton	Yakima	2,000		67.0		96	19	42	27†	46	T.		T.	0.0	0					U. S. Reclamation Service
Touchet	Walla Walla	556	2	67.7		100	18†	36	6	56	T.		T.	0.0	0	28	1	2	sw.	D. W. Dorrance.
Touchet Ridge	Columbia	2,500																		R. H. King..
Trinidad	Douglas	900	5	74.3		102	19	49	28	38	0.00		0.00	0.0	0	29	2	0	nw.	J. C. Wheeler.
Twisp	Okanogan	1,619	6	66.4[c]		101	18	36	27	55	0.08		0.08	0.0	1	26[c]	0[c]	2[c]		Wm. G. Hughes.
Tyee	Chelan	2,000									0.06		0.06	0.0	1	17	12	2	w.	Elias McCrea.
Vancouver	Clarke	100	34	65.0	− 1.0	92	18	41	21	41	0.07	− 0.53	0.05	0.0	2	20	7	4	nw.	A. A. Quarnberg.
Vashon Island	King	110	20	59.6	− 3.6	79	12	43	5	30	0.40	− 0.11	0.32	0.0	3	22	7	2	n.	Miss Gertrude McClintock
Wahluke	Grant	410	5	69.0		104	19	39	28	53	0.00		0.00	0.0	0	31	0	0		F. C. Koppen.
Wallace	Okanogan	4,000									T.		T.	0.0	0	9	21	1	s.	Geo. A. Wallace.
Walla Walla	Walla Walla	1,000	25	71.8	− 2.0	99	19	48	28	39	0.01	− 0.44	0.01	0.0	1	27	2	2	s.	U. S. Weather Bureau.
Waterville	Douglas	2,624	19																	O. R. Hopewell.
Wenatchee (near)	Chelan	1,169	10	67.9	+ 0.4	95	19	46	27	31	T.	− 0.36	T.	0.0	0	25	5	1	w.	George Pitcher.
West Branch	Spokane	2,600																		Martin A. Murray.
Wilbur	Lincoln	2,203	10			95		32	27											Rollin J. Reeves.
Yale	Cowlitz	375	2	63.0		93	18	36	21†	43	0.23		0.23	0.0	1	17	12	2	sw.	L. F. Williams.
Zindel	Asotin	715	7	75.5	− 3.0	107	19	51	29†	42	T.	− 0.93	T.	0.0	0	11	15	5	n.	M. W. Zindel.
Oregon.																				
Albany	Linn	214	33	63.5	− 2.6	95	28	40	25	47	0.30	− 0.21	0.22	0.0	3	21	3	7	n.	F. M. French.
Ashland	Jackson	1,940	25	69.0	0.0	97	28	44	27	41	0.12	− 0.28	0.12	0.0	1	28	2	1	nw.	F. H. Carter.
Astoria	Clatsop	11	47																	C. W. Lamar.
Baker City	Baker	3,466	20	65.6	+ 0.7	97	19	38	27	45	0.01	− 0.38	0.01	0.0	1	22	9	0	nw.	U. S. Weather Bureau.
Bay City	Tillamook	14	13	58.2	− 0.9	84	28	34	7	40	0.55	− 0.39	0.27	0.0	5	24	2	5	nw.	J. O. Bozarth.
Birch Creek	Wheeler	2,900		69.1		100	19	42	27	45	0.00		0.00	0.0	0	29	2	0	w.	F. S. Matteson.
Black Butte	Lane	1,200	8	60.6	− 4.7	88	28	37	4	44	0.18	− 0.02	0.08	0.0	3	26	5	0	ne.	James A. Putman.
Blalock	Gilliam	237	10	75.2	− 0.7	103	19	51	5†	40	0.00	− 0.13	0.00	0.0	0	29	1	1	w.	Geo. W. Long.
Buckhorn Farm	Josephine	1,300	10	66.8	− 0.1	101	18	37	24	56	T.	− 0.45	T.	0.0	0	27	0	3	n.	E. F. Meisser.
Cascade Locks	Hood River	100	18	64.4	− 3.6	87	18	44	27	37	0.58	− 0.24	0.31	0.0	3	29	2	0	w.	Val W. Tomkins.
Casadero	Clackamas	514		63.9		92	18	42	5†	42	1.03		0.55	0.0	3	25	5	1	w.	A. Drill.
Condon	Gilliam	2,884	1	62.8		90	19	35	27	44	0.00		0.00	0.0	0	31	0	0	nw.	C. H. Williams.
Corvallis	Benton	600	7	62.9	− 2.4	94	28	41	5†	45	0.11	− 0.29	0.08	0.0	2	26	3	1	w.	Oregon Agric. College.
Dayville	Grant	1,500	14	67.1	− 0.3	101	19	33	28	60	0.00	− 0.39	0.00	0.0	0	31	0	0	nw.	Dr. J. Campbell-Martin
Doraville	Columbia	600	7	60.6	− 1.8	86	18†	41	21	40	0.31	− 0.62	0.20	0.0	4	13	12	6	nw.	Jos. Hackenberg.
Drain	Douglas	300	6	64.2	− 1.1	95	18	37	16	52	0.07	− 0.37	0.05	0.0	2	21	7	3	nw.	Ira Wimberly.
Echo	Umatilla	625	5	71.6		101	19	40	28	47	0.00		0.00	0.0	0	28	1	2	w.	R. B. Stanfield.
Ella	Morrow		10	71.8		103	19	40	28	45	0.00	− 0.30	0.00	0.0	0	30	1	0	sw.	C. F. Troedson.
Eugene	Lane	449	18	64.2	− 0.7	92	28	41	27	47	0.00	− 0.66	0.00	0.0	0	24	6	1	n.	A. W. Jackson.
Fairview	Coos	142	11	57.6	− 4.1	85	17	38	22	43	0.61	+ 0.04	0.50	0.0	2	29	0	2	nw.	Wm. Bettys.
Fall City	Polk	355	11	61.4	− 1.6	95	18	37	5†	48	T.	− 0.60	T.	0.0	0	24	4	3	se.	Chas. F. Vick.
Forest Grove	Washington	220	19																	Pacific University.
Gardiner	Douglas	72	19	60.2	− 0.9	82	25	44	22†	35	0.60	− 0.24	0.34	0.0	4	23	5	3	n.	Hon. J. S. Gray.
Glendale	do	1,441	5	66.2		101	18	37	15	57	0.00	− 0.32	0.00	0.0	0	28	3	0	w.	B. J. Simpson.
Glenora	Tillamook	575	17	60.1	− 3.2	94	18	35	5†	49	0.60	− 0.54	0.32	0.0	3	22	5	4	nw.	Mrs. Jennie Recher.
Gold Beach	Curry	40	6	56.6	− 1.5	74	27	40	22	30	0.25	− 0.01	0.25	0.0	1	28	0	3	nw.	C. Dewey.
Granite	Grant	4,680	4	57.6		93	29	24	28	60	T.	− 0.24	T.	0.0	0	21	10	0	nw.	L. M. Ford.
Grants Pass	Josephine	956	20	67.6	− 1.0	104	18	39	6†	58	T.	− 0.33	T.	0.0	0	26	2	3	sw.	John B. Paddock.
Grass Valley	Sherman	2,381	7	56.1	− 6.9	79	12	32	24	35	0.02	− 0.25	0.02	0.0	1	10	7	14		Agent, O. Ry. & N. Co.
Greenleaf	Lane		9	61.1	− 1.5	91	18	37	22	49	0.15	− 0.53	0.10	0.0	3	23	4	4	nw.	Wm. Wheeler.
Headworks	Clackamas	719	10	61.2	− 1.2	87	18	41	5†	41	1.05	− 0.88	0.47	0.0	5	21	7	3	sw.	Portland Water Works.
Heppner	Morrow	1,950	20	66.0	− 2.2	98	18	38	28	46	0.00	− 0.29	0.00	0.0	0	22	8	1		Geo. Whiteis.
Hermiston	Umatilla	450	4	70.1		102	19	38	28	53	0.00	− 0.42	0.00	0.0	0	27	4	0	sw.	C. W. Kellogg.
Hood River	Hood River	243	18	64.4[a]	− 2.3	101	17	38	28	49	T.	− 0.24	T.	0.0	0	27[b]	0[b]	2[b]	w.	H. L. Hasbrouck.
Huntington	Baker	2,110	7	78.1	0.0	101	19	55	6	41	0.00	− 0.26	0.00	0.0	0	28	3	0		J. M. Day.
Jacksonville	Jackson	1,640	20	70.5	+ 0.8	101	18	44	21†	53	0.04	− 0.44	0.04	0.0	1	27	2	2	n.	E. Britt.
La Grande	Union	2,784	21	67.6	− 0.6	103	19	33	28	56	0.35	− 0.18	0.35	0.0	1	27	3	1		W. A. Worstell.
Madras	Crook	2,150		63.8[a]		100	18	32	28	63	T.		T.	0.0	0	30	1	0	nw.	D. P. Rea.
Marshfield	Coos	12	7																	Dr. E. Mingus.
McKenzie Bridge	Lane	1,400	7	61.9	− 1.6	96	18†	31	27	60	0.10	− 0.94	0.08	0.0	2	25	2	4	w.	Geo. Frissell.
McMinnville	Yamhill	180	21	63.8	− 1.9	97	18	38	5	48	0.01	− 0.55	0.01	0.0	1	20	6	5	n.	C. J. McKee.
Mikkalo	Gilliam	1,600	5	68.0		96	19	41	5†	43	T.		T.	0.0	0	24	7	0	w.	J. T. Chandler.
Miramonte Farm	Clackamas	195	19	64.2	− 0.8	94	28	41	5	42	0.21	− 0.29	0.12	0.0	3	23	5	3	n.	G. M. Muecke.
Monroe	Benton	350	12	63.4[a]	− 2.0	91	28	43	5†	40	0.21	− 0.43	0.19	0.0	2	21	5	5	nw.	John H. Starr.
Mount Angel	Marion	485	23	65.4	− 2.2	91	28	47	5†	35	0.32	− 0.16	0.29	0.0	0	24	6	1	sw.	Dr. U. F. Fisher.
Mountain Park	Hood River	1,550	4	64.2[c]		92	18	40	27	41	T.		T.	0.0	0	23[c]	5[c]	[c]	w.	Raymond Markley
Newport	Lincoln	69	19	60.0	+ 2.4	75	29	40	5	26	0.16	− 0.63	0.14	0.0	2	21	4	6	nw.	Wm. Matthews.
Pendleton	Umatilla	1,272	19	70.0	− 0.4	105	18	36	6	54	0.00	− 0.44	0.00	0.0	0	24	7	0		H. F. Johnson.
Pilot Rock	do	1,872		70.2		100	19	42	5	43	0.02		0.02	0.0	1	27	3	1	nw.	John P. McManus.
Pompeii	Clackamas	3,580	14	54.4	− 2.0	87	18	32	27	37	0.83	− 1.30	0.50	0.0	2	24	4	3	sw.	O. C. Yocum.
Portland	Multnomah	57	40	65.0	− 0.9	91	18	46	5	34	0.05	− 0.60	0.05	0.0	1	19	11	1	nw.	U. S. Weather Bureau
Port Orford	Curry	300	4	58.0		69	17	48	15	18	0.28		0.28	0.0	1	26	5	0	nw.	Willis T. White.
Prineville	Crook	3,000	12	61.3	− 2.2	95	12	31	27	55	0.00	− 0.34	0.00	0.0	0	29	2	1	nw.	C. I. Winnek.
Prospect	Jackson	2,750	4	64.4		100	18	32	27	55	0.00		0.00	0.0	0	23	8	0	s.	E. F. Graham.
Range	Grant		4	61.2		98	18	25	21	60	0.00		0.00	0.0	0	31	0	0		Craig Thom.
Riverside	Malheur	3,000	12																	Mrs. Leah Fairman.
Roseburg	Douglas	523	32	65.0	− 1.2	96	18	41	27	48	T.	− 0.33	T.	0.0	0	21	7	3	nw.	U. S. Weather Bureau.
Salem	Marion	120	18	65.4	− 0.9	91	28	45	5	36	0.02	− 0.44	0.02	0.0	1	27	2	2	nw.	M. P. Baldwin.

TABLE 1.—*Climatological data for August, 1909. District No. 12*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, .01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Oregon—Cont'd.																				
Siskiyou	Jackson	4,115	1	63.5	.....	92	18	39	23†	43	0.44	.....	0.44	0.0	1	26	5	0	e.	Louise F. Bates.
Stafford	Clackamas	.....	13	64.7	− 1.9	97	28	39	5	43	0.26	− 0.58	0.14	0.0	2	.....	.....	.....	ne.	J. P. Gage.
The Dalles	Wasco	112	34	68.8	− 2.0	98	18	43	28	42	0.00	− 0.18	0.00	0.0	0	27	1	3	w.	S. L. Brooks.
Toledo	Lincoln	50	19	59.0	− 2.2	85	28†	39	21	35	0.25	− 0.20	0.20	0.0	2	28	2	1	nw.	C. B. Crosno.
Umatilla	Umatilla	340	19	72.8	+ 0.7	103	19	44	6†	47	T.	− 0.32	T.	0.0	0	27	3	1	w.	Mrs. H. T. Duncan.
Vale	Malheur	2,450	17	72.0	+ 3.0	104	18	33	28	58	T.	− 0.28	T.	0.0	0	28	3	0	e.	H. P. Osburn.
Wallace Orchard	Polk	.....	.....	63.9	.....	95	28	39	5	43	0.08	.....	0.08	0.0	1	14	13	4	.....	Chas. A. Park.
Wallowa	Wallowa	2,935	6	62.4	− 0.6	98	19	30	28	57	0.07	− 0.72	0.07	0.0	1	21	5	5	nw.	L. J. Coverstone.
Warmspring	Crook	1,600	7	66.7	− 5.2	99	18†	39	6	52	0.00	− 0.50	0.00	0.0	0	27	3	1	nw.	Claude C. Covey.
Weston	Umatilla	1,800	19	69.3	+ 1.0	98	19	40	6	48	T.	− 0.74	T.	0.0	0	23	6	2	se.	M. A. Baker.
Williams	Josephine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. John.

* Precipitation included in that of the next measurement.
** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.
† Also on other dates.
‡ Separate dates of falls not recorded.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.
‖ Estimated by observer.
‖‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.
[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—*Daily precipitation for August, 1909. District No. 12, Columbia Valley.*

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Montana.																																	
Anaconda	Missoula	.11					T.		.08	T.	T.	.02	T.		T.							.05		.28				.08		T.	T.	T.	0.62
Bison Mountain	do	.23						T.	T.	T.				T.							T.			.72			T.						0.95
Columbia Falls	Flathead	T.						T.																	.10		T.						0.10
Como	Bitter Root																				.10						.03				.03	.03	0.19
Darby	do	.05						T.				T.	T.								.03	.05											0.13
Dayton	Flathead																																
East Anaconda	Missoula	.16					T.		T.			T.	T.	T.								.03		.38			.07				T.	T.	0.64
Fortine	Flathead																																
Hamilton	Bitter Root										.05			.12																			0.17
Hat Creek	Missoula							T.	.19		T.													.45						T.			0.64
Jocko	Flathead																																
Kalispell	do	T.						T.			.01														.01		.09						0.11
Lost Creek	Missoula																																
Missoula	do																					.28				T.	T.	.06					0.34
Ophir	do	.02							.30	.05	T.		.12	T.								.22		.36				.05					1.12
Ovando	do												T.									.25		T.	T.		.05	.15					0.45
Philipsburg	do	T.							T.	T.	T.		.12	.06							.20							.22			T.	T.	0.60
Pipestone Pass	do	.09					.02	T.	.09	T.	.09	.18		T.										.37				.22			T.	T.	1.06
Plains	Columbia																										T.						T.
Pleasant Valley	Kootenai	.02								T.			T.												T.		.10						0.12
Polson	Flathead																																0.00
St. Ignatius	do									.02												.03		.01	T.		.03						0.09
St. Regis	Missoula										.12																.07						0.19
Saltese	do																										.30						0.30
Snowshoe	Kootenai	T.									.01														.09		.72						0.82
Troy	do																										.32						0.32
Upper Lake McDonald	Flathead	T.											.10																	.10			0.20
Woodville	Missoula	.12						.05	.28	.03		T.												.20				.06					0.74
Wyoming.																																	
Afton	Snake						.05	.02			.25	.05	.05	.20		.10							.01	.40								.80	1.93
Alta	do																																
Bedford	do				.07		.34					.03		.10										.35								.52	1.41
Snake River	do												.30	.30									.10	.30								.10	1.10
Nevada.																																	
San Jacinto	Snake	T.								T.													.14						T.	.03	.72	.40	1.29
Idaho.																																	
Albion	Snake	.02						T.	T.			.16		T.							.05			.55						.11	T.	.25	1.14
Almo	do						.02	T.				.25												.75								1.00	2.02
Blackfoot	do	.06						T.	T.	.05		.05	.07	T.		T.							.69	T.							.18	.30	1.40
Blanche	do																														T.	.10	0.10
Bogus Creek	Payette	T.							T.	T.			T.																		.04	.06	0.10
Boise	Boise	T.							T.	.01		T.											T.								T.	T.	0.01
Bonanza	Salmon																																
Bonners Ferry	Columbia																										.13						0.13
Boulder Mine	Boise								.01	.03																					.09	.02	0.15
Buhl	Snake																															.15	0.15
Burke	Columbia																								.03		.27						0.30
Caldwell	Boise																															T.	T.
Calls Ranch																	T.														T.	.07	0.07
Camas	Lost River Region	.50	.20							.06	T.	.05												.44							.15	T.	1.40
Cambridge	Snake																																0.00
Chesterfield	do		.15				.03		.21	.23				.02	.15									.21							T.	.34	1.34
Clawson	do	T.						.05		.55			.03	.20		T.	T.						.05	.52								.02	1.42
Coeur d' Alene	Columbia																										T.						T.
Culdesac	Clearwater																										T.						T.
Dent	do																				T.				T.		T.						T.
Driggs	Snake	.02						T.			.55			30									T.									.03	0.90
Edie	Lost River Region		.10									.35		T.									T.	.07							.33		0.85
Emmett	Payette																																0.00
Forney	Salmon	.15							.05	T.	.23	T.										T.		.06				.14		T.	.06	.09	0.78
Gilbert	Clearwater																																
Glenns Ferry	Snake									.02														.02								.15	0.19
Grand Forks	Columbia																										.35						0.35
Grandview	Snake	T.																															T.
Grimes Pass	Boise									.21																					.10	1.02	1.33
Guffey	Snake	T.							T.	T.														T.							.01	T.	0.01
Halley	Wood-Malad	T.																						14								.03	0.17
Henry	Snake	.06			.01		.15	.09	.03			.27	.01	.13		.20	.02			T.			.07	.21							.13	.56	1.94
Hotspring	do	T.																					T.									T.	T.
Idaho City	Boise								.22																							.27	0.49
Idaho Falls	Snake	.02							T.	T.		.02	.09			T.								.42								.22	0.77
Indian Valley	do																														.05	.10	0.15
Irwin	do	.07		.03			.06									.17					.09			.60									1.02
Kellogg	Columbia																									T.		.23					0.23
Kooskia	Clearwater										T.											.15					.02	.66					0.83
Lake	Snake	.75	T.										.50																				1.25
Lakeview	Columbia																										.05						0.05
Landore	Snake	.02												T.							.03											T.	0.05
Lardo	Payette																																
Lewiston	Clearwater																								T.		T.						T.
Little Camas	Boise								T.	T.													T.						T.	T.	T.	T.	T.
Lost River	Lost River Region		.15																														0.15
Lowry	Owyhee	.13																													T.	T.	0.13
Mackay	Lost River Region										T.		.25										.05	T.						.03	.07	.10	0.50
Meadows	Salmon																					T.											T.
Milner	Snake	T.								.04													T.								.01	.02	0.07
Moscow	Columbia																										T.						T.
Mountainhome	Snake	T.																															T.
Murtaugh	do	T.																						.11								.32	0.43
Nez Perce	Clearwater																																
Oakley	Snake																						.07	.19							.98	.22	1.46
Orofino	Clearwater																							.03		T.	.01						0.04
Payette	Payette	T.							T.					T.								T.									T.	T.	T.
Pebble	Snake	.16			.04		.03	.06	.18					.05		.16				.12				.12							.08	.83	1.83
Pierson	Salmon	.09						.07																						.04	.72	.43	1.35
Pleasant Valley	Boise									.21	T.																				T.	.01	0.22
Pocatello	Snake	.08		T.						.04		.36	.03	.02		T.							.40	.42							.82	.90	3.07
Pocatello Nursery	do									.03				.22		.09							.28									1.22	1.84
Poplar	do								T.	.03	.20	.04	.29	.04		T.						T.	T.	.45								.19	1.24
Poplars	Boise																																
Porthill	Columbia																							T.									T.
Pyle Creek	Payette	T.								.04	T.																						0.04
Rupert	Snake									.05							T.						.47	.14						T.	T.	.16	0.82
St. Maries	Columbia	T.																								.14							0.14

TABLE 2.—*Daily precipitation for August, 1909. District No. 12*—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Idaho—Cont'd.																																	
Salem	Snake	.11									.06													.17								.02	0.36
Salmon	Salmon	.17	.02						T.	T.	.11	T.								T.				.34				T.		.04	T.	T.	0.68
Salmon River Dam	Snake	.18	.03						T.														T.							.04	T.	.53	0.78
Sheep Hill	Boise									T.																					.08	.05	0.13
Silver City	Owyhee	T.							T.	.01																					.02	.07	0.10
Soldier	Wood-Malad							T.										T.						.50	.25	.10	T.						0.85
Standrod	Snake	T.					T.	.07						.02		.01						T.		.14								1.00	1.24
Sugar	...do		.08									.06	.02										.18	T.							T.	.41	0.75
Sunnyside	...do																																T.‡
Tilden	...do	T.								.40		T.	T.											.60							.10	T.	1.10
Twin Falls	...do	.02																					.01	.03							.04	.20	0.30
Vernon	...do																																.....
Wallace	Columbia																							T.	.01		.19	T.				.02	0.22
Warfield	Wood-Malad																						T.								.10	.31	0.41
Wendell	Snake									T.														T.						T.	.13	T.	0.13
Washington.																																	
Aberdeen	Coast									.06				.03	.11						.03		.03			.55	.45						1.26
Anacortes	Puget Sound																							.10	.01	.15							0.26
Baker	...do															.15							.05			.16	.49						0.85
Bellingham	...do														T.	.01							.05			.31	.61						0.98
Blaine	...do	T.	T.	T.										T.	T.	.04						.05	.20		.02	1.42	.72	.02					2.47
Bremerton	...do																							.04		.05	.08						0.17
Cedar River	...do														.06								.07			.36	.02						0.51
Centralia	Coast														.15						.05												0.20
Cheney	Spokane																																0.00
Chopaka	Okanogan				T.						T.												T.				.03						0.03
Clearbrook	Puget Sound																																.....
Clearwater	Coast	.07			.01					.01	T.	.01	T.	.48	.44					.02	.01		.08		.15	2.80	.20						4.28
Clealum	Yakima																										.06						0.06
Colfax	Palouse																																0.00
Colville	Columbia																						T.										T.
Conconully	Okanogan			T.																		T.					T.						T.
Coupeville	Puget Sound																																.....
Crescent	Spokane																								.03								0.03
Davenport	Columbia																										.02						0.02
Dayton	...do																							T.			.18						0.18
Detroit	Puget Sound														.05								.02			.16	.19						0.42
Dixie	Columbia																										.20						0.20
Duckabush	Puget Sound			.02																		.20			.07			.05					0.34
East Sound	...do																																.....
Ellensburg	Yakima																																0.00
Ephrata	Columbia																																.....
Forks	Coast																																.....
Fort Simcoe	Yakima																																0.00
Goat Lake	Puget Sound															.20							.03			.30	2.00	.10					2.63
Gold Creek	Yakima																																0.00
Goldendale	Columbia																																0.00
Granite Falls	Puget Sound														T.	.08					.11		.07			T.	.70						0.96
Hatton	Columbia																																0.00
Huntsville	...do																										.04						0.04
Irene Mountain	...do			.02											T.								T.				.01						0.03
Kennewick	...do																											T.					T.
Kettle Falls	...do																																0.00
Klona	Yakima																																0.00
Kosmos	Columbia														.04								T.				.10						0.14
La Center	...do														.12						T.					.02							0.14
La Crosse	Palouse																							T.	T.		.04						0.04
Lake Clealum	Yakima														T.											T.	T.	T.					T.
Lake Kachess	...do																									T.	.16						0.16
Lake Keechelus	...do																									T.	.28	.08					0.36
Lakeside	Columbia	T.		T.												T.								T.									T.
Laurel	...do																																0.00
Lester	Puget Sound																									T.	.20	.10					0.30
Lone Tree	Coast	.04		T.						.02					.15	T.		T.		.01	.02		.12	.02		.46	.32	T.					1.16
Longmires Springs	Puget Sound																																.....
Lost Creek	Columbia																																0.00
Lucerne	...do																																.....
Lyle	...do																										T.						T.
McCumbers Ranch	...do																																0.00
Mottingers	...do																																0.00
Mount Pleasant	...do															.45								.18									0.63
Moxee	Yakima																																0.00
North Head	Coast	T.			T.						.02				.12					.01	.02		.09			.09							0.35
Northport	Columbia			T.	T.						T.					T.							T.			T.	T.						T.
North Yakima	Yakima																																.....
Nutland	Columbia																																0.00
Odessa	...do																																0.00
Olga	Puget Sound												.20									.06				.35	.39						0.90
Olympia	...do														.11								.06			.04							0.21
Omak	Okanogan																						T.										.....
Oroville	...do																						T.										.....
Peola	Snake																								.01		.15						0.16
Pomeroy	...do																																.....
Port Crescent	Coast														.03							.04	.12			1.08	.07						1.34
Port Townsend	Puget Sound							T.								T.							.05				.14						0.19
Pullman	Palouse																								T.		.05						0.05
Quintault	Coast														.35						T.		.16			1.60	1.08						3.19
Republic	Columbia																						T.										T.
Rex Creek	...do																																.....
Ritzville	...do																																.....
Rock Lake	Palouse																																0.00
Rosalia	...do																										.08						0.08
Russells Ranch	Yakima					T.																				T.	T.						T.
Seattle (1)	Puget Sound	T.													.02								.03			.20	.02						0.27
Seattle (2)	...do															.01							.02			.16	.15	.05					0.39
Sedro-Woolley	...do																				.03					.09	.19	.04					0.35
Sixprong	Columbia																						T.										T.
Skagit Power Dam	Puget Sound															.10								.10		.90	.95						2.05
Snohomish	...do		T.												.03	T.							.06			.05	.31	T.					0.45
Snoqualmie	...do															.03							.07			.09	.52	.20					0.91
Snyders Ranch	Columbia																						T.				.05						0.05
South Bend	Coast																																.....
Spokane	Spokane																								T.		.01						0.01
Stehekin	Columbia																																.....

TABLE 2.—*Daily precipitation for August, 1909. District No. 12*—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washington—Cont'd.																																	
Stokes Ranch	...do																																
Sullivan Lake	Pend Oreille																																
Sumner	Puget Sound																																0.00
Sunnyside	Yakima														.13								.02			.14	.04						0.33
Tacoma	Puget Sound																																
Tatoosh Island	Coast	.01	T.		.02	T.			T.	T.	.01	T.	.16	.51	.26		T.			.01	.01	.05	.11	.01	.08	1.64	.09						2.97
Tieton	Yakima																										T.						T.
Touchet	Columbia																									T.	T.						T.
Touchet Ridge	...do																																
Trinidad	...do																																0.00
Twisp	...do																									.08							0.08
Tyee	...do																										.06						0.06
Vancouver	...do														T.						T.			.02			.05						0.07
Vashon Island	Puget Sound														.03	T.							T.			.32	.05						0.40
Wahluke	Columbia																																0.00
Wallace	Okanogan																						T.										T.
Walla Walla	Columbia																							.01									0.01
Waterville	...do																																
Wenatchee (near)	...do	T.																															T.
West Branch	Spokane																																
Wilbur	Columbia																																
Yale	...do																							T.			.23						0.23
Zindel	Snake																					T.											T.
Oregon.																																	
Albee	John Day																																
Albany	Willamette															.22								.06			.02						0.30
Astoria	Columbia																															.12	0.12
Ashland	Rogue																																
Baker City	Snake										T.										.01			T.									0.01
Bay City	Coast			T.					T.			T.			.22	.02	T.				.03			T.		.01	.27						0.55
Bear Creek	Deschutes																																0.00
Beaver Creek	...do																																
Bellfountain	Willamette														.05								T.	T.			T.						0.05
Bend	Deschutes																																
Big Basin	John Day																																0.00
Birch Creek	...do																																0.00
Black Butte	Willamette															.08							.05				.05						0.18
Blalock	Columbia																																0.00
Blue Mount Sawmill	Umatilla																				T.												T.
Buckhorn Farm	Coast																						T.								T.		T.
Butte Falls	Rogue River																															.02	0.02
Cableville	Snake																																
California Gulch	Umatilla																																0.00
Canyon City	John Day																																0.00
Cascade Locks	Columbia														.17	.10											.31						0.58
Cascadia	Willamette				.04											.17							.05				.23						0.49
Cazadero	...do														T.	.43								.05			.55						1.03
Columbia Mine	Snake																							T.									T.
Condon	John Day																																0.00
Coquille River L. H.	Coast														.11							.01					.07						0.19
Cornucopia	Snake																					T.			T.								T.
Corvallis	Willamette														.08								T.	.03									0.11
Cracker Creek	Snake											T.	T.								T.			T.									T.
Crescent	Deschutes																																
Dayville	John Day																																0.00
Doraville	Columbia	T.			T.						T.				.20	.04					.03						.04						0.31
Drain	Umpqua														.05									.02									0.07
Duncan	Umatilla																																0.00
Echo	...do																																0.00
Elkhorn Ranch	Coast														.42	T.					T.		.10	.01			.11						0.64
Ella	Columbia																																0.00
Embody	Deschutes																																0.00
Eugene	Willamette																																0.00
Eugene (River sta'n)	...do																																
Fairview (1)	Coast									.50													.11					T.					0.61
Fairview (2)	Snake																																0.00
Falls City	Willamette																						T.										T.
Fir Glen	Coast																																0.00
Florence	...do														.27					.01	T.		.01	.26			.11						0.66
Forest Grove	Willamette																																
Galice	Rogue																																
Gardiner	Umpqua														.34						.06	.10					.10						0.60
Glendale	...do																																0.00
Glenora	Coast	T.													.32										.10	.18							0.60
Gold Beach	Rogue														.25																		0.25
Granite	John Day																			T.	T.			T.									T.
Grants Pass	Rogue																															T.	T.
Grass Valley	John Day				T.				.02																								0.02
Greenleaf	Coast														.10								.02	.03									0.15
Happy Home	Umpqua																																
Haseldell	Willamette														T.																		T.
Headworks	...do														.22	.17					.02			.17			.47						1.05
Heppner	Columbia																																0.00
Hermiston	Umatilla																																0.00
Hilgard	Grande Ronde																					T.						T.					T.
Hood River	Columbia																								T.								T.
Howardville Station	Grande Ronde																											.07					0.07
Huntington	Snake																																0.00
Ibex Mine	John Day																				T.	.07		T.									0.07
Ironside	Snake																				T.			T.									T.
Jacksonville	Rogue																															.04	0.04
Joseph	Grande Ronde																																
Kamela	...do																																0.00
Keeps Mill	Deschutes																																
La Grande	Grande Ronde																										.35						0.35
Lilyglen	Rogue																																
Long Creek	John Day																																0.00
Madras	Deschutes																							T.									T.
Maury	...do																																0.00
McKinzie Bridge	Willamette															.03											.08						0.10
McKay	Umatilla																																
McMinnville	Willamette														.01								T.	T.	T.								0.01
Meacham	Umatilla																																0.00
Mikkalo	John Day																									T.							T.

TABLE 2.—*Daily precipitation for August, 1909. District No. 12*—Continued.

Stations.	River basins.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon—Cont'd.																																	
Miramonte Farm	Willamette														.12	.04								.05									0.21
Monroe	...do														.19									.02									0.21
Mountain Home	Columbia	.05			T.										.19						.04		.02				.06						0.36
Mount Angel	Willamette														.29												.03						0.32
Mount Hood	Columbia																										T.						T.
Mountain Park	..do														T.																		T.
Mountain Ranch	Rogue																																0.00
Musick	Umpqua															.10											.25						0.35
Newport	Coast														.14	.02																	0.16
Nigger Flat	Malheur																																.....
Ochoco	Deschutes																																0.00
Ochoco Creek	...do																																0.00
Owyhee	Owyhee																				T.												T.
Pendleton	Umatilla																																0.00
Persist	Rogue																															.15	0.15
Pilot Rock	Umatilla																					T.		.02									0.02
Pompeii	Willamette															.33											.50						0.83
Portland	...do														T.								T.	.05			T.						0.05
Port Orford	Coast														.28																		0.28
Post	Deschutes																																0.00
Power House	Walla Walla																	T.							T.								T.
Prineville	Deschutes																																0.00
Prospect	Rogue																																0.00
Range	John Day																																.....
Ray Creek	Columbia																																0.00
Reston	Umpqua																																.....
Richland	Snake																																0.00
Riverdale Ranch	Deschutes																																.....
Riverside	Malheur																																.....
Rock Creek	Willamette														.03								.04										0.07
Roseburg	Umpqua														T.																		T.
Rosland	Deschutes																																0.00
Salem	Willamette														T.									T.			.02						0.02
Seneca	Interior																																0.00
Siskiyou	Rogue																															.44	0.44
Sisters	Deschutes																																0.00
Skyland	Willamette																																.....
Sparta	Snake																																.....
Stafford	Willamette														.14	T.								.12			T.						0.26
Starkey	Grande Ronde																				T.												T.
Summit	Willamette												T.		.05												.13						0.18
Summit Prairie	Deschutes																																.....
Susanville	John Day																																0.00
Telocaset	Snake																																0.00
The Dalles	Columbia																																0.00
Tin Roof Cabin	Umatilla																					T.		.01									0.01
Toledo	Coast														.20												.05						0.25
Trask	...do														.20									.05			.28						0.53
Umatilla	Columbia																										T.						T.
Unity	Snake																																0.00
Vale	Malheur																				T.												T.
Van	...do																																.....
Wallace Orchard	Willamette														.08												T.						0.08
Wallowa	Grande Ronde																					.07					T.						0.07
Walloupa	...do																										.04						0.04
Wamic	Deschutes																																.....
Warmsprings	...do																																0.00
Wasco	Columbia																										T.						T.
Welches	Umatilla														.20								.24				.35						0.79
Wenaha Springs	...do																																.....
Weston	Walla Walla																							T.									T.
Willamina	Willamette														T.									T.									T.
Williams	Rogue																																.....

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1909. District No. 12, Columbia Valley.*

Date.	Montana.						Idaho.																					
	Kalispell.		Missoula.		Afton, Wyo.		Boise.		Bonners Ferry.		Hotspring.		Lewiston.		Mackay.		Meadows.		Pocatello.		Salmon.		Shoshone.		Vernon.		Wallace.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	76	50	79	53	.....	.....	84	64	80	46	95	56	86	61	83	31	79	51	85	62	85	54	85	61	.....	.....	76	42
2...	75	47	79	48	.....	.....	84	53	78	49	93	52	83	57	81	31	89	49	81	51	80	45	81	50	.....	.....	70	42
3...	77	45	85	42	.....	.....	92	54	84	43	94	50	91	56	86	32	88	37	91	53	86	44	89	51	.....	.....	80	42
4...	76	50	82	47	.....	.....	89	57	78	49	92	54	83	66	85	32	86	41	90	61	92	42	89	57	.....	.....	74	50
5...	72	42	76	46	.....	.....	82	53	74	38	90	54	79	55	83	34	78	40	86	58	88	51	83	54	.....	.....	68	40
6...	74	39	79	38	.....	.....	85	50	87	34	89	49	83	48	83	33	79	35	87	54	87	41	84	47	.....	.....	74	34
7...	73	41	80	45	.....	.....	86	53	72	40	88	50	86	51	82	33	80	48	87	65	83	46	79	51	.....	.....	75	38
8...	78	40	87	39	.....	.....	92	58	87	40	94	60	93	50	79	31	86	34	87	66	87	40	83	55	.....	.....	81	38
9...	88	46	92	49	.....	.....	94	64	91	40	100	60	98	57	83	33	90	52	89	61	90	45	87	58	.....	.....	88	45
10...	86	56	92	54	.....	.....	93	64	89	55	96	61	90	63	85	34	92	49	89	65	88	56	89	59	.....	.....	81	52
11...	84	49	92	47	.....	.....	92	60	87	40	94	58	92	56	89	35	91	45	90	61	89	46	89	63	.....	.....	80	44
12...	84	46	93	48	.....	.....	93	60	86	41	95	58	94	55	92	45	92	41	88	64	88	47	90	62	.....	.....	83	44
13...	82	44	87	52	.....	.....	92	59	89	44	92	48	95	56	86	45	90	55	89	62	90	48	87	57	.....	.....	84	45
14...	89	47	95	47	.....	.....	96	58	91	46	97	52	93	57	92	46	91	38	93	56	94	42	90	58	.....	.....	89	48
15...	77	49	82	51	.....	.....	85	54	93	43	87	50	78	59	90	44	84	40	84	60	92	37	86	49	.....	.....	78	44
16...	77	42	83	43	.....	.....	88	52	91	41	90	53	87	51	84	49	88	38	87	57	90	43	85	54	.....	.....	73	40
17...	80	43	90	42	.....	.....	93	57	92	41	94	54	95	54	85	55	92	39	90	52	91	42	87	49	.....	.....	84	42
18...	85	45	92	46	.....	.....	96	58	99	56	96	55	99	57	85	54	93	40	91	55	93	44	90	52	.....	.....	86	45
19...	85	48	93	46	.....	.....	99	61	90	40	98	56	105	58	90	58	96	38	92	57	94	42	92	53	.....	.....	91	47
20...	85	47	91	50	.....	.....	95	62	95	42	98	65	88	66	91	65	92	45	92	64	94	45	93	58	.....	.....	80	53
21...	74	50	77	49	.....	.....	82	54	78	50	93	60	81	58	88	55	80	42	85	65	87	59	85	61	.....	.....	70	51
22...	81	42	89	41	.....	.....	94	56	75	38	94	54	88	51	84	44	87	34	85	55	93	39	87	55	.....	.....	79	39
23...	74	45	73	56	.....	.....	77	54	79	40	91	53	78	60	76	55	81	45	73	54	84	51	73	58	.....	.....	72	40
24...	65	41	78	42	.....	.....	85	49	72	40	86	49	73	51	75	39	80	33	78	42	79	36	80	42	.....	.....	66	40
25...	78	38	86	46	.....	.....	90	53	82	41	90	49	81	52	84	46	86	36	87	48	88	40	86	48	.....	.....	81	38
26...	76	48	85	47	.....	.....	91	58	80	40	93	53	84	59	87	49	87	40	93	55	94	41	90	55	.....	.....	80	50
27...	69	43	69	50	.....	.....	73	48	72	35	84	52	76	51	84	55	70	37	78	48	86	46	84	52	.....	.....	68	40
28...	73	35	81	34	.....	.....	89	45	81	30	89	43	88	45	78	40	85	27	87	39	82	31	86	39	.....	.....	78	34
29...	80	38	93	41	.....	.....	96	62	86	38	90	65	93	53	82	45	92	39	90	55	90	43	88	64	.....	.....	90	42
30...	84	46	92	46	.....	.....	87	66	90	40	89	68	90	54	80	50	87	44	86	61	87	43	87	64	.....	.....	87	43
31...	80	49	84	61	.....	.....	79	66	91	40	81	66	94	54	68	55	85	55	70	60	76	57	75	63	.....	.....	95	44
Mns	78.5	44.9	85.0	46.6	.....	.....	88.8	56.8	84.2	41.9	92.0	55.1	88.2	55.5	83.9	43.6	86.3	41.5	86.5	57.0	88.0	44.7	85.8	54.8	.....	.....	79.4	43.1

Date.	Washington.																											
	Aberdeen.		Blaine.		Colville.		Kosmos.		Lakeside.		North Head.		North Yakima.		Odessa.		Port Crescent.		Seattle.		Sixprong.		Spokane.		Tacoma.		Tatoosh Island.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1...	65	49	68	50	87	42	69	52	83	63	59	53	82	57	85	57	59	47	65	54	86	56	80	60	68	53	58	51
2...	68	54	65	41	84	44	82	40	81	54	60	54	84	52	80	49	59	43	68	54	82	54	76	52	70	50	59	51
3...	68	49	69	47	87	43	82	42	88	58	61	54	90	59	89	49	61	51	70	53	91	57	85	52	73	51	58	51
4...	67	45	69	51	89	44	69	50	80	60	58	52	80	56	81	63	59	48	63	53	83	56	76	59	65	53	56	50
5...	69	40	67	39	87	49	78	39	78	49	58	52	78	48	72	47	62	39	68	51	77	48	74	48	68	48	58	51
6...	76	42	73	38	83	33	86	37	84	52	58	51	82	50	81	46	66	38	71	52	83	56	77	44	71	48	61	48
7...	68	48	75	43	88	36	87	37	90	54	57	53	87	54	84	48	60	40	79	51	87	60	82	45	78	49	56	50
8...	69	45	70	44	90	35	86	38	90	54	56	52	90	53	89	41	58	50	70	53	93	55	86	49	71	50	56	51
9...	69	52	71	43	84	37	76	48	90	61	58	53	93	53	93	52	60	48	66	52	95	60	92	55	70	52	58	50
10...	64	49	71	44	88	49	80	48	86	57	60	53	86	54	86	55	60	50	71	52	89	59	83	61	73	52	56	50
11...	63	51	72	44	90	38	85	40	89	56	56	52	87	54	83	43	57	49	72	51	93	53	86	50	75	51	55	51
12...	67	53	72	48	92	38	80	43	92	58	59	53	89	57	90	42	62	49	72	52	93	53	88	50	73	52	57	51
13...	68	55	67	57	92	39	88	46	93	59	61	54	88	56	90	47	62	51	76	55	92	52	88	56	78	54	59	51
14...	63	54	70	52	94	40	82	45	89	59	58	54	90	60	91	49	69	48	69	56	89	58	88	52	71	54	59	53
15...	66	46	68	46	80	57	73	44	80	56	62	54	77	52	86	41	62	45	66	51	78	53	73	54	67	49	59	51
16...	69	42	70	49	85	38	82	36	87	55	62	52	82	51	92	45	62	46	74	51	88	41	81	45	74	47	59	51
17...	68	43	74	41	93	37	90	40	93	57	61	54	91	57	94	46	61	43	76	55	93	55	88	49	75	50	63	51
18...	80	48	79	41	98	40	93	43	97	59	57	53	96	60	98	47	62	42	78	55	97	64	93	51	79	51	57	51
19...	69	51	81	46	99	40	82	46	100	60	58	54	98	56	102	54	59	46	76	56	102	67	97	53	76	57	55	50
20...	67	52	76	54	89	43	67	50	87	62	58	55	82	58	87	55	60	47	64	55	88	58	82	62	70	56	58	52
21...	68	54	69	51	80	42	77	47	80	54	61	51	76	48	86	44	60	38	69	51	77	42	73	51	69	50	59	49
22...	66	51	66	48	72	36	72	42	76	54	58	54	80	48	75	44	58	49	59	54	87	54	80	46	61	54	57	49
23...	65	51	70	39	82	35	77	52	81	54	58	54	79	58	81	52	58	43	71	53	91	55	75	52	71	52	58	49
24...	65	49	70	51	76	50	74	47	80	60	62	54	76	53	81	51	60	45	69	55	78	54	71	54	71	55	59	50
25...	62	54	66	54	84	39	66	43	80	56	59	56	83	47	84	45	60	52	65	57	80	56	82	47	73	57	58	53
26...	64	52	68	53	79	65	69	52	72	62	60	55	78	63	85	42	57	46	66	55	81	65	74	53	67	54	57	52
27...	73	42	65	52	78	35	78	38	77	49	60	52	74	43	80	38	64	39	64	51	74	47	70	44	63	53	57	50
28...	86	56	70	41	84	31	92	37	80	45	84	55	81	43	82	40	71	51	75	53	84	60	79	45	76	53	64	52
29...	68	51	77	43	93	35	82	41	87	52	62	55	87	54	94	47	59	45	74	55	92	59	89	54	77	53	61	52
30...	70	48	65	40	94	36	83	39	91	57	58	54	89	54	92	45	60	40	71	52	89	58	87	50	69	48	58	52
31...	68	42	71	40	93	38	86	39	93	57	54	50	94	60	93	48	65	39	74	52	95	55	89	48	72	48	57	48
Mns	68.3	49.0	70.5	46.1	86.9	40.8	79.8	43.3	85.6	56.2	59.8	53.3	85.0	53.8	86.6	47.5	61.0	45.4	70.0	53.2	87.3	55.5	82.1	51.3	71.4	51.7	58.1	50.7

TABLE 3.—*Maximum and minimum temperatures at selected stations for August, 1909. District No. 12*—Continued.

Date.	Walla Walla, Wash.		Oregon.																					
			Ashland.		Baker City.		Eugene.		Gold Beach.		Hermiston.		Marshfield.		Portland.		Prineville.		Roseburg.		The Dalles.		Vale.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	82	59	83	51	77	56	76	53	65	44	83	60	67	56	70	55	78	43	75	54	79	64	97	66
2	82	55	88	51	78	43	79	44	72	42	85	53	68	46	78	50	81	36	84	45	85	53	92	42
3	91	57	87	56	86	48	92	50	69	46	94	52	65	46	78	57	84	40	86	50	85	57	98	43
4	80	57	82	55	75	51	79	53	68	44	82	60	61	55	66	53	75	45	72	53	79	55	93	58
5	77	52	80	47	72	45	73	42	65	49	80	49	65	42	73	46	74	36	77	43	79	47	91	57
6	82	49	80	48	75	42	80	45	64	44	86	39	65	48	81	53	78	33	81	46	84	48	89	42
7	87	55	85	53	77	51	83	47	66	46	89	42	63	53	84	53	79	36	87	46	88	52	89	57
8	92	53	90	57	86	47	83	48	65	44	94	44	63	51	82	55	87	37	85	50	92	54	93	51
9	94	61	89	57	92	50	80	46	68	44	97	53	64	53	73	54	89	44	83	48	86	55	101	45
10	89	64	89	55	87	57	78	49	66	49	91	62	65	48	74	50	85	43	81	49	82	56	101	54
11	91	60	88	57	86	52	81	48	62	46	92	52	63	54	80	55	85	43	83	49	88	50	100	58
12	92	63	87	50	86	51	80	53	64	53	95	61	66	54	69	53	95	42	74	52	85	56	100	50
13	94	60	87	53	89	55	81	54	70	49	94	60	71	51	81	54	88	39	85	53	88	55	96	54
14	91	63	79	51	90	51	81	46	69	55	92	54	68	54	73	54	82	43	72	50	83	60	98	41
15	76	57	76	55	74	48	69	45	62	46	90	55	65	51	71	51	73	50	75	51	74	55	95	53
16	87	53	77	48	81	46	76	49	66	41	87	52	66	42	78	48	92	37	83	43	85	47	96	46
17	95	57	92	55	88	51	84	44	69	42	95	42	69	46	85	55	90	40	90	46	92	51	102	46
18	98	64	96	59	90	54	88	57	66	44	100	48	69	52	91	61	93	44	96	50	98	56	104	49
19	99	62	92	63	97	55	84	55	66	48	102	53	67	56	80	59	92	48	86	58	92	57	103	51
20	86	60	82	56	80	54	82	48	64	42	89	63	66	55	68	54	78	41	66	52	82	58	102	62
21	78	53	81	46	76	43	75	45	65	43	81	52	65	44	75	47	75	36	81	52	80	49	89	54
22	85	55	78	52	87	45	75	44	67	40	88	44	67	40	72	50	78	38	73	44	81	51	96	40
23	78	55	77	46	69	49	74	55	67	43	86	56	68	56	75	57	74	40	76	48	76	62	85	55
24	72	57	85	50	83	42	76	44	68	43	79	52	67	43	70	51	79	37	84	47	80	50	87	40
25	90	60	88	56	86	46	88	50	71	45	92	53	76	46	84	50	85	41	89	48	86	51	91	46
26	78	55	81	59	84	48	83	58	64	56	79	62	72	52	69	55	78	47	71	52	80	64	94	45
27	75	52	84	44	68	38	75	41	74	54	76	41	69	43	74	49	72	31	78	41	76	46	80	46
28	86	48	97	56	81	38	92	45	67	45	86	38	78	40	87	56	83	32	94	46	85	43	87	33
29	89	59	87	54	94	49	88	46	69	50	92	44	70	55	77	57	88	38	83	47	87	49	101	43
30	88	62	82	53	81	53	79	45	66	43	90	44	63	51	78	51	85	40	84	46	89	51	89	56
31	91	60	73	59	84	53	79	47	66	54	95	45	63	52	81	55	85	40	82	54	87	53	87	53
Mean	86.3	57.3	84.6	53.3	82.5	48.7	80.1	48.3	66.8	46.3	89.1	51.1	66.9	49.5	76.7	53.2	82.6	40.0	81.2	65.0	84.3	53.4	94.4	49.5