Climatological Data for July, 1910.

DISTRICT No. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor.

GENERAL CLIMATOLOGICAL CONDITIONS.

The month of July was characterized by remarkably steady temperatures which averaged above normal for the district. No general excessively high temperatures were reported, and there was no frosty weather, except at a few of the more elevated stations. The precipitation averaged above normal, and the drought, which had extended from March 1, was broken during the month when good showers fell in most localities. These showers were sufficient to benefit vegetation, and raise the water to some extent in the streams. There was generally sufficient water for irrigation, but at the end of the month it was getting low and was much lower than it had been for many years.

TEMPERATURE.

This month takes rank as one of the warmest months of its name on record, the mean being 72.0°. In Utah the average temperature for the month was exceeded in only three previous years, and in Nevada in only five. The mean temperature ranged from 63.6° at Evanston in southwestern Wyoming to 83.2° at Jean in southern Nevada. The highest mean temperatures occurred in the valleys of Utah and in western Nevada, and the lowest means were confined to the more elevated portions of the district. The record for the month shows a remarkable regularity in temperature, there being no period of widespread high or low temperatures. As a rule, the first six days of the month were coolest. The temperature then rose gradually, with some local exceptions, culminating in two periods of high temperature, the 18th and 25th.

The highest temperature for the district was 110° on the 11th at Jean in southern Nevada. Other high maximum temperatures were 108° on the 26th, at Battle Mountain, Nev., and 105°, on the 14th, at Corinne, Utah. There were 22 stations which reported maximum temperatures of 100° or more; while only three stations reported maximum temperatures below 90°.

Excepting at five stations, the minimum temperatures occurred on the first six days of the month. Only 11 stations reported minimum temperatures of 32° or below. The lowest temperature recorded was 28° on the 5th at Cobre and Potts, Nev.

PRECIPITATION.

As a rule, the precipitation in July is very light in the Great Basin; but during the present month it was unusually heavy in most localities. The greatest amounts fell along the western slope of the Wasatch Mountains in Utah and at scattered places in Nevada. The greatest excesses occurred in southern Utah, and the greatest deficiencies in the Oregon area and in northern Nevada.

The greatest monthly amount was 3.41 inches at Panguitch Lake, Utah, and the greatest 24-hour amount 1.85 inch on the 13th at Jean, Nev. One of the heaviest showers on record at Reno, Nev., occurred on the 17th, where from 4:20 p. m. to 7 p. m. 0.82 inch fell; in 5 minutes 0.15 inch, and in 30 minutes 0.54 inch fell.

The first decade was very dry, only a few local showers having been recorded. The wettest periods of the month centered about the 15th and the 27th, except in the California area, where most of the rain fell on the 17th, 18th, and 19th; and in the Oregon area no rain fell after the 21st.

MISCELLANEOUS.

Sunshine during the month was abundant throughout the district. At Salt Lake City, Utah, 73 per cent of the possible amount was recorded.

There were, on the average, 4 rainy, 15 clear, 10 partly cloudy, and 6 cloudy days.

The highest wind reported was 56 miles an hour from the southwest on the 3d at Modena, Utah.

INFLUENCE OF SOIL MULCHES IN CHECKING EVAPORATION.

By DON H. BARK, Office of Irrigation Investigations, Boise, Idaho.

Irrigation water has always been subject to enormous losses before it reaches the farmers' fields, and it has long been known that but a small part of the amount actually diverted from the streams is used beneficially by the crops. But how to cut down this loss and thus make our available water supply cover and produce maximum crops on more land has long been the problem. These losses occur from seepage and evaporation from the ditches before the water reaches the field and from evaporation and waste afterward. The Irrigation Investigation Division of the United States Department of Agriculture has been studying these various losses and the best means of eliminating them for the past ten years, and the experiment herein described is given in detail, along with many others, in Office of Experiment Station Bulletin No. 177.

In conducting experiments on evaporation losses from the soil, the greatest difficulty is in securing natural normal conditions. Laboratory tests with small amounts of soil are easily made, but the evaporation from soils and the artificial surroundings of a laboratory as regards temperature, humidity, and wind movement are likely to be quite different from that from similar soils in the open, so it was decided at the outset that all experiments along these lines should be carried out with large amounts of soil and in the open field.

The plan followed in determining the rate and amount of evaporation from the soil was to remove about 1,200 pounds of soil from the field and place it in a water-tight cylindrical vessel as nearly as practicable in its natural position, and by periodical weighings to determine the loss of moisture from it. The equipment which was used consists of 8 water-jacketed galvanized iron tanks 2 feet in diameter and 4 feet high. The outer tanks are set in the ground in a typically located spot and the inner tanks are carefully filled with 4 feet of soil compacted to its normal density by tamping, after which they are weighed and lowered into the outer tanks which have previously been partly filled with water.

Water equivalent to 4 or 6 inch irrigation is then applied to each tank and the influence of wind, shade, mulches, and cultivation upon evaporation are carefully determined by figuring these factors and weighing the tanks twice each week.

Tank equipments are now installed and have been operated for the past two years in the following places: Bozeman, Mont.; Williston, N. Dak.; Reno, Nev.; Sunnyside, Wash.; Davis, Cal.; and Caldwell, Idaho. These localities cover a wide range of climatic conditions, and with an equipment flexible enough to carry on various experiments in the evaporation from the soils a large number of valuable results are looked for in the next few years. The results which were obtained up to January, 1907, are given in Office of Experiment Station Bulletin No. 177, and other bulletins will be issued later on giving the results from a wider range of experiments which have been carried on since that time. The experiment herein described is taken from that bulletin and was carried on at Riverside, Cal., during June and July, 1907, for the purpose of determining the amount of evaporation from orchard soils with different depths of soil mulch, and to compare the effect of different depths of mulch upon the evaporation. Fourteen water-jacketed tanks were

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TABLE 1.—*Climatological data for July, 1910. District No. 10, Great Basin.*

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.
Wyoming.																				
Border	Uinta	6,085	7	65.0	+ 2.9	93	25	32	1	54	0.18	− 0.19	0.13	0.0	2	14	8	9	w.	S. W. Condron.
Cokeville	do	6,204	0	64.8		96	17†	31	6	56	0.95		0.76	0.0	5	20	8	3	w.	E. J. Tuckett.
Evanston	do	6,860	13	63.6	+ 1.7	87	18†	37	5†	44	1.35	+ 0.59	0.35	0.0	8	16	14	1	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake		3								0.73		0.40	0.0	2	29	2	0		F. W. Boehme.
Grace	Bannock	5,400	4	73.0		96	18†	39	5	48	1.11		0.34	0.0	9	18	7	6	s.	Cyril B. Dickson.
Oxford	do	4,750																		Edwin Smith.
Paris	Bear Lake	5,946	16	64.7	+ 1.1	91	19	35	5	52	1.10	+ 0.42	0.35	0.0	9	16	15	0	w.	John Norton.
Stone	Oneida	4,520																		Thos. W. Roe.
Weston	do	4,460	13	70.2	+ 2.1	96	18	37	5	47	0.93	+ 0.34	0.63	0.0	4	22	8	1	sw.	Wm. Chatterton.
Utah.																				
Alpine	Utah	4,900	13								0.39	− 0.28	0.30	0.0	3	13	16	2		George Stevens.
Annabella	Sevier	5,250	5																	J. W. Fairbanks.
Beaver	Beaver	6,000	7	70.9		91	24	46	5	37	2.08		0.66	0.0	11	10	16	5	sw.	James Connell.
Black Rock	Millard	4,872	10	72.4		99	20†	38	5	57	1.99	+ 1.58	0.83	0.0	4	6	20	5		W. D. Livingston.
Blacksmiths Fork	Cache		1																	Forest Supervisor.
Card Canyon	do		1																	Do.
Castle Rock	Summit	6,244	7																	David Moore.
Cedar City	Iron	5,750	5								0.12		0.08	0.0	3					Parley Dalley.
Corinne	Boxelder	4,240	40	76.8	− 2.2	105	14	42	5	56	0.72	+ 0.29	0.72	0.0	1	15	13	3		A. C. Murphy.
Deseret	Millard	4,541	16	74.7	+ 2.7	99	19	43	6	50	0.38	+ 0.23	0.15	0.0	4	13	11	7	s.	S. W. Western.
Enterprise	Washington	4,270	2								0.51		0.27	0.0	4	8	11	12	s.	John Day.
Farmington	Davis	4,267	10	73.4	+ 0.9	96	13†	46	6	43	1.66	+ 1.29	0.78	0.0	4	19	9	3	sw.	Charles Boylin.
Fillmore	Millard	5,100	20	76.2	+ 0.9	102	24	43	5	46	1.84	+ 1.21	1.39	0.0	8					J. J. Starley.
Friese Summit	Wasatch										1.27		0.91	0.0	4	12	17	2	nw.	Victor A. Friese.
Frisco	Beaver	7,318	16	75.0	+ 1.2	98	24	50	6	40	0.96	+ 0.20	0.28	0.0	5					E. R. Smyth.
Garland	Boxelder		1	73.0		97	19	42	23	45	0.41		0.27	0.0	3	14	9	8	s.	Harry B. Shaw.
Garrison	Millard		7								1.33		0.59	0.0	4	3[c]	5[a]	8[c]	s.	E. M. Smith.
Government Creek	Tooele	5,277	10	74.4	+ 1.3	96	25	43	5	37	0.95	+ 5. 1	0.40	0.0	6	14	14	3	s.	Walter James.
Grantsville	do		1																	Allen J. Fraser.
Grouse Creek	Boxelder										0.40		0.15	0.0	5	8	18	5	sw.	Philip Paskett.
Heber	Wasatch	5,606	17	67.4	+ 1.5	96	25	35	1†	58	1.01	+ 0.21	0.55	0.0	4	16	14	1	s.	John Crook.
Henefer	Summit	5,301	11	67.1	+ 2.3	95	18	32	6	57	2.66	+ 2.09	1.40	0.0	5	13	13	5	w.	Wm. Brewer.
Ibapah (near)	Tooele	7,500	5			95[a]	24				0.65		0.35	0.0	4	12[a]	17[a]	1[a]	w.	J. S. Lawton.
Ibex	Millard																			John J. Watson.
International	Tooele	5,370	1	77.1		97	25	51	5	33	1.24		0.76	0.0	5	19	8	4	se.	I. S & R. Co.
Josepa	do																			James Mackie.
Kanosh	Millard	5,250	2								1.09		0.35	0.0	8					Geo. Crane.
Kelton	Boxelder	4,230	32	73.0	− 4.4	97	20†	41	5	45	0.65	+ 0.29	0.65	0.0	2	10	20	1	sw.	F. W. Klock.
Levan	Juab	5,010	20	73.8	+ 2.4	98	28	46	6	43	0.26	− 0.34	0.18	0.0	4	16	12	3	sw.	Wm. Brown.
Logan	Cache	4,507	19	75.3	+ 3.9	97	25	48	4	37	0.79	+ 0.37	0.49	0.0	2				n.	Utah Exp. Station.
Lucin	Boxelder	4,504	6	76.2		101	13†	45	5†	54	T.		T.	0.0	0	12	14	5		C. J. Burke.
Manti	Sanpete	5,575	16	66.1	− 4.4	83	23	50	1†	37	0.79	+ 0.22	0.19	0.0	7	5	3	23		J. M. Anderson.
Marion	Summit	6,750	6								0.86		0.23	0.0	9	7[c]	2[c]	17[c]	nw.	Jas. Woolstenhulme.
Marysvale	Piute	6,280	11	68.9	+ 2.6	94	25	39	1†	49	0.62	− 0.37	0.20	0.0	8	10	5	16	s.	John W. Henry.
Meadowville	Rich	6,200	11	66.6	− 1.6	92	18	36	1	49	0.50	+ 0.01	0.25	0.0	2	25	3	3	w.	J. S. Moffat.
Milford	Beaver	4,962	6	74.2		101	19	45	1†	51	0.50		0.50	0.0	1	9	1	21	sw.	J. C. Manuel.
Millville	Cache	4,848	15								0.46	+ 0.08	0.26	0.0	3	14	17	0	s.	Fred Yeates.
Minersville	Beaver	5,070	13								1.19	+ 0.62	0.43	0.0						Geo. Roberts, sr.
Modena	Iron	5,479	10	72.1	+ 2.4	96	21	44	6	46	0.91	+ 0.60	0.43	0.0	10	9	15	7	w.	U. S. Weather Bureau.
Morgan	Morgan	4,280	7																	W. Visick.
Moroni	Sanpete	5,519	2	72.0[g]		97[g]	25	49[g]	1†	46[g]	0.88		0.33	0.0	8	10	13	8	sw.	B. F. Eliason.
Mount Nebo	Utah	4,650	9	79.8		100	13†	58	24	35	0.98		0.33	0.0	4	20	10	1	s.	D. C. Walkey.
Nephi (near)	Juab	6,059	7								0.33		0.15	0.0	5	8	22	1	sw.	S. Boswell.
Oak City	Millard	4,900	6	78.8		103	25	47	5	43	1.06		0.32	0.0	8	11	14	6		Peter Nielson.
Ogden	Weber	4,310	9	76.0		94[a]	13†	47[a]	5	32[a]	0.26		0.12	0.0	3	23[a]	5[a]	2[a]	nw.	Enoch Farr.
Panguitch Lake	Garfield	9,000	1								3.41		0.98	0.0	9	4	16	11	s.	Jas. E. Prince.
Park City	Summit	7,800	13																	Irvin Evans.
Parowan	Iron	5,970	19	70.6	− 0.5	93	21	46	5	36	2.18	+ 1.24	0.71	0.0	8	16	0	15		S. M. Matheson.
Payson	Utah	4,637	7								0.50		0.23	0.0	5	9	13	9	sw.	D. L. Coombs.
Pinto	Washington	5,907	13	67.4	+ 0.8	92	19†	33	1†	48	2.50	+ 1.45	0.55	0.0	7	8	10	13	s.	J. H. Harrison.
Promontory	Boxelder	4,913	39																	F. C. Houghton.
Provo	Utah	4,532	18	76.0	+ 2.9	101	13†	48	6	48	0.58	+ 0.35	0.40	0.0	3	6	25	0	n.	James A. Oliver.
Randolph	Rich	6,442	7								1.01	+ 0.23	0.27	0.0	8	20	10	1		William Rex.
Richfield	Sevier	5,350	20	71.4[h]		97[h]	22	42[h]	1	50[h]	1.00	+ 0.45	0.36	0.0	7					Joseph J. Jensen.
Saltair	Salt Lake	4,220	7	76.8		92	17	56	6	27	0.92		0.37	0.0	3					E. J. Bench.
Salt Lake City	do	4,360	37	77.6	+ 1.4	97	19	54	6	35	0.52	− 0.02	0.19	0.0	8	13	16	2	nw.	U. S. Weather Bureau.
Scipio	Millard	5,260	15	68.8	− 1.2	95	25	36	5	53	0.62	− 0.02	0.17	0.0	7	8	9	14	sw.	Thos. Memmott.
Sevier Mine	Sevier										1.87		0.82	0.0	10	10	21	0		Max Krotki.
Silver City	Juab	6,127									0.22		0.15	0.0	4	7	23	1	s.	J. L. Stark.
Spanish Fork Canyon	Utah	4,585	1	75.8		98	25	51	6	39	0.43		0.43	0.0	1	18	2	11		U. S. Reclamation Service.
Strawberry Valley	do		4	64.3		88	25	36	6	42	0.71		0.20	0.0	8	11	16	4		Do.
Thistle	do	5,075	18																	J. Thorgeirson.
Tooele	Tooele	4,900	14	74.0	+ 0.4	96	13	49	6	39	1.35	+ 0.89	0.58	0.0	5	7	8	16	n.	E. A. Bonelli.
Utah Lake Pumping Sta.	Utah	4,500	5																	W. A. Knight.
Woodruff	Rich	6,500	12	66.8	+ 6.0	92	25	31	23	54	0.15	− 0.29	0.05	0.0	4	14	9	8	sw.	J. Sidney Pusey.
Oregon.																				
Burns	Harney	4,157	20	68.9	+ 3.1	100	14	37	1	56	0.03	− 0.18	0.03	0.0	1	21	10	0	w.	J. C. Welcome, jr.
Christmas Lake	Lake	4,320	2	63.8		97	13	30	5	55	0.66		0.37	0.0	3	16	10	5	n.	John C. Green.
Paisley	do	4,500	6	69.6		95	13	42	4	41	0.30		0.20	0.0	2	25	3	3	sw.	E. C. Woodward.
"P" Ranch	Harney	4,300		67.4		95	12	38	23	52	0.12		0.12	0.0	1	20	11	0		J. P. Jefferson.
Silver Lake	Lake	4,700	14								0.70	+ 0.20	0.43	0.0	2					Wm. Holder.
California.																				
Al Tahoe	Eldorado	6,235																		A. R. Sprague.
Glen Alpine Springs	do	6,850																		R. W. Porteous.
Tahoe	Placer																			Robert M. Watson.
Truckee	Nevada	5,819	39	64.6	− 0.8	94	8†	34	3	53	0.00	− 0.19	0.00	0.0	0	31	0	0	sw.	Southern Pacific Co.
Nevada.																				
Aurora	Esmeralda																			J. I. Cain.
Austin	Lander	6,594	21																	James L. Pelton.
Battle Mountain	do	4,843	39	74.4	− 0.8	108	26	40	5	58	0.51	+ 0.38	0.51	0.0	1	21	5	5	w.	Southern Pacific Co.
Beowawe	Eureka	4,905	39	72.2	− 5.0	100	19†	38	4	50				0.0		25	5	1	s.	Do.
Carlin	Elko	5,232	39	72.9	+ 2.3	100	25†	30	6	70	0.43	+ 0.32	0.30	0.0	2	29	0	2		Do.
Carson Dam	Churchill	4,032	3	76.4		98	25	45	5	41	T.		T.	0.0	0	23	8	0	w.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	2	71.0		97	24	39	5	45	0.46		0.33	0.0	7	8	21	2	w.	J. H. Leishman.
Clover Valley	Elko	6,000	10	71.2		96	13†	44	2†	49	0.40		0.19	0.0	3	11	17	3		I. F. Wiseman.
Cobre	do		1	71.8	− 1.7	102	11†	28	5	73	0.05	− 0.11	0.03	0.0	2	19	4	8	ne.	Southern Pacific Co.

TABLE 1.—*Climatological data for July, 1910. District No. 10*—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.		
Nevada—Cont'd.																				
Columbia	Esmeralda	5,750	3	75.0[e]		97	8†	40	4	40[e]	1.09		0.48	0.0	5	18	11	2	se.	A. Booth.
Dutton	Elko	5,100	2	69.2		96	13†	36	23	57	0.55		0.55	0.0	1	10	20	1	w.	Golconda Cattle Co.
Elko	...do	5,342	39	67.6	− 3.3	95	12†	34	3	56	1.71	+ 1.45	1.03	0.0	2	11	13	7	ne.	Southern Pacific Co.
Ely	White Pine	6,421	19	76.4	+ 3.4	95	23	46	16	44	0.94	+ 0.41	0.60	0.0	3	25	4	3	w.	G. C. Hunting.
Eureka	Eureka	6,500	7	70.2	− 1.9	93	7†	37	5	46	2.62	+ 2.08	0.92	0.0	10	10	6	15	s.	Clay Simms.
Fallon	Churchill	3,965	5	74.6	+ 1.1	103	10	38	4	48	0.05	− 0.05	0.03	0.0	2	22	2	7	w.	U. S. Experiment Farm.
Fernley	Lion	4,200	2	78.5	+ 0.6	103	25	44	4	41	0.19	− 0.12	0.19	0.0	1	21	5	5	w.	Mrs. A. J. Rankin.
Gardnerville	Douglas	4,830	10	69.4	+ 1.3	99	7	30	4	54	2.50	+ 2.38	1.00	0.0	3	16	12	3	e.	Wm. Dangberg.
Geyser	Lincoln		6																	Mrs. J. F. Wambolt.
Glenbrook	Douglas		1																	C. C. Henningsen.
Golconda	Humboldt	4,697	31	73.3	− 3.0	101	13	42	14	49	0.25	+ 0.18	0.25	0.0	1	26	4	1	s.	Southren Pacific Co.
Halleck	Elko	5,631	17	76.8	+ 7.1	100	24	47	4	45	0.34	− 0.06	0.26	0.0	2	24	5	2		Do.
Jean	Clark	2,074	2	83.2		110	11	58	5	42	2.05		1.85	0.0	2	26	3	2	sw.	Salt Lake Route.
Leetville	Churchill	4,020	3	76.6		103	10	44	5	42[b]	0.30		0.30	0.0	1				w.	U. S. Reclamation Service.
Lewers Ranch	Washoe	5,500	22	69.6	+ 1.9	98	9	32	4	45	0.15	− 0.01	0.15	0.0	2	18	11	2		Ross Lewers.
Lovelock	Humboldt	3,977	7	72.4	− 4.1	102	4†	36	14	63	T.	− 0.13	T.	0.0	0					J. S. Case.
McAfees Ranch	Esmeralda	4,835	6																	C. H. Rodenkirch.
Millett	Nye		2	69.0		95	23†	36	4	50	1.95		0.65	0.0	6	14	7	10	w.	Fred J. Jones.
Mina	Esmeralda	4,600	3	78.1		104	10†	48	4	52	T.		T.	0.0	0	14	6	11	w.	Southern Pacific Co.
Palmetto	...do	6,780	20																	A. J. Akin.
Potts	Nye	6,990	17	66.6	− 4.0	95	7†	28	5	58	0.18	− 0.48	0.05	0.0	4	2	5	24	s.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	8	71.8[e]		99	13	35	3	60[e]	0.40		0.10	0.0	5	20	8	3	sw.	F. M. Payne.
Reno	Washoe	4,532	39	72.8	+ 2.9	97	7	40	4	43	1.45	+ 1.17	1.20	0.0	5	24	5	2	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	3	76.6		98	10†	46	4	39	0.08		0.06	0.0	2	21	10	0	w.	U. S. Reclamation Service.
Tecoma	Elko	4,812	32	70.0	− 4.2	102	13	41	4	57	T.	− 0.16	T.	0.0	0	9	8	17	se.	Southern Pacific Co.
Tonopah	Nye	6,090	3	73.5		92	11	41	4	30	0.52		0.17	0.0	5	12	19	0	se.	U. S. Weather Bureau.
Wabuska	Lyon	4,347	7	71.2[d]		104	11	32	4	56[d]	0.15		0.15	0.0	1	22	0	9	ne.	Vic Bernard.
Wells	Elko	5,631	38	73.0	+ 1.9	104	20	34	29	60				0.0		21	3	7	s.	Southern Pacific Co.
Winnemucca	Humboldt	4,432	31	72.8	+ 1.2	98	25	40	5	49	0.10	− 0.07	0.05	0.0	2	22	7	2	sw.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
* 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.

TABLE 2.—*Daily precipitation for July, 1910. District No. 10, Great Basin.*

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	
Wyoming.																																	
Border	Bear															.13					.05	T.	T.				T.					T.	0.18
Cokeville	do				T.	T.							T.		T.	.09				.14	.62	T.					T.	T.	.06	T.	.04	T.	0.95
Evanston	do				.21										T.	.29		.11	T.	.31	.04	.07						.11	.21	T.			1.35
Idaho.																																	
Geneva	Bear															.40							.33										0.73
Grace	do			T.									.06		T.	.16			.12	T.	.06	.08					.14		.01	.14	T.	.34	1.11
Oxford	do																																
Paris	do													.35				.25	.10	.09	.06		.03						.02	.15		.05	1.10
Stone	Deep Creek																																
Weston	Bear															.20				.63	.07	.03											0.93
Utah.																																	
Alpine	Great Salt Lake														.04		.30											.05					0.39
Annabella	Sevier Lake																																
Beaver	do			T.								.02	T.	T.	.11	T.	.43	T.	.22	.01	.20	T.				T.	.14	.21	.04	.66	.04		2.08
Black Rock	do														.25		.13					T.					.83	.78					1.99
Blacksmiths Fork	Great Salt Lake																																
Card Canyon	do																																
Castle Rock	do																																
Cedar City	Desert																.08			.02											.02		0.12
Corinne	Great Salt Lake			T.												.72												T.					0.72
Deseret	Sevier Lake											.05			.10	.08				T.							.15						0.38
Enterprise	Desert													T.			.27											.02		*	.22		0.51
Farmington	Great Salt Lake														T.	.25											.03		.60			.78	1.66
Fillmore	Sevier Lake			T.								T.	T.		.08		.19	.05	T.	.03	.02		T.				T.	1.39		.02		.06	1.84
Friese Summit	Great Salt Lake									.04			T.			.29							.91			T.				.03			1.27
Frisco	Desert																									.94			.22	.18	.24	.28	0.96
Garland	Great Salt Lake															.27												.10	.04				0.41
Garrison	Desert																		T.	T.						.50	.13	.11	.59		T.		1.33
Government Creek	do												T.		T.	.13	.32			T.	.02		T.				T.	.40	.01		T.	.07	0.95
Grantsville	Great Salt Lake																																
Grouse Creek	Desert											T.	T.			.15			.10	.05	.07								.03				0.40
Heber	Great Salt Lake			T.	T.								T.		.08		.55			T.								.02		T.		.36	1.01
Henefer	do			T.									T.		.15	.48	T.			.03	T.						T.	T.	.60	T.		1.40	2.66
Ibapah	Desert										T.	T.	T.	T.	.10	T.	T.		T.	T.	T.	T.				T.	.12	.35	.08	T.			0.65
Ibex	do																																
International	Great Salt Lake												T.		T.	.25			.02								.08	.76				.13	1.24
Iosepa	Desert																																
Kanosh	Sevier Lake														.14			.35	.26		.08						.03	.02	.10			.11	1.09
Kelton	Great Salt Lake																				*	.65											0.65
Levan	Sevier Lake			.01								T.		T.	.04		.03	T.	.18								T.					T.	0.26
Logan	Great Salt Lake														.49					T.							T.					.30	0.79
Lucin	Desert											T.	T.		T.	T.		T.		T.	T.							T.	T.			T.	T.
Manti	Sevier Lake			.18									.09	T.	.19	.14					T.				.03	.08		.08					0.79
Marion	Great Salt Lake			T.	.04								T.	T.	.03	.20	.18	.02	.04								.13	.02				.20	0.86
Marysvale	Sevier Lake			T.										.15	.04	.02					.01						.20	.05	.03	T.	T.	.12	0.62
Meadowville	Great Salt Lake														.25	.25													T.			T.	0.50
Milford	Sevier Lake										T.				T.		.50	T.		T.							T.						0.50
Millville	Great Salt Lake			T.											.02	.26					T.											.18	0.46
Minersville	Sevier Lake													T.	.31	T.	T.	.10								.43	.31		T.	.04			1.19
Modena	Desert										T.	T.		.30	.13	T.	.09			.02					.16	.01	T.	.01	.09	.02	.08		0.91
Morgan	Great Salt Lake																																
Moroni	Sevier Lake			.13	T.							T.	.05		T.	.03	T.	.08	.06		.01						.19	.33			T.	T.	0.88
Mt. Nebo	Great Salt Lake			T.											T.			.26	.24			.15	T.					.33				T.	0.98
Nephi (near)	do			.02											.08												.02	.15	.06				0.33
Oak City	Sevier Lake														.01		.05		.20	.02						.09		.32			.17	.20	1.06
Ogden	Great Salt Lake														.04	.10													.12				0.26
Panguitch Lake	Sevier Lake			.24	.50										.12	.50	.12			T.				T.			.98	.35	T.	.25	.35	T.	3.41
Park City	Great Salt Lake																																
Parowan	Desert													.45	.05		.20		.45					.20	.71		.08				.04		2.18
Payson	Great Salt Lake													T.	.03	.02	.12	T.			T.	T.	.10					.23				T.	0.50
Pinto	Desert													T.			.15			T.					.55	.18	.45	.45	.36	T.	.36		2.50
Promontory	Great Salt Lake																																
Provo	do																.40						.15						T.	.03			0.58
Randolph	do				.04										.13	.27	.01			.05	.08					T.	T.	.10	T.			.33	1.01
Richfield	Sevier Lake													.06	.36	.12	.11	T.	T.								.12	.15	.08				1.00
Saltair	Great Salt Lake												T.	T.	T.	.30												.37	.25				0.92
Salt Lake City	do			T.									.10	T.	.02	.10	.02				T.						.02	.19	.01			.06	0.52
Scipio	Desert											T.			.02	T.	.13	.02		.12		.17					.02	.14		T.		T.	0.62
Sevier Mine	Sevier Lake			.12											.20	.05			.12	.20	.04	T.				T.	.05	T.		.13	.82	.14	1.87
Silver City	Desert													.02	.03	.02	.15																0.22
Spanish Fork Canyon	Great Salt Lake																											T.				.43	0.43
Strawberry Valley	do			T.	.20		.09						.05	T.	.06	.16		.04					.05				T.	.05		.10			0.71
Thistle	do																																
Tooele	do												T.		.31	.16				.09	T.	T.						T.	.58			.21	1.35
Utah Lake Pump'g Sta.	do																																
Woodruff	do																																
Oregon.																																	
Ana River	Southeast Drainage														.03						T.	.09											0.12
Burns	do																				.03												0.03
Burns Mill	do																			.10	T.												0.10
Christmas Lake	do			.16											.13							.37											0.66
Diamond "H" Ranch	do																																
Paisley	do		.10																		.20												0.30
Plush	do			.47										.05						.29	T.												0.81
"P." Ranch	do												.12																				0.12
Silver Lake	do			.27												.43																	0.70
Valley Falls	do			.07								T.			T.					T.	.08	.17											0.32
California.																																	
Al Tahoe	Truckee																																
Bijou	do																																
Boca	do																																
Bodie	East Walker																																
Bridgeport	do																																
Brockway	Truckee																																
Deer Park	do																																
Donner Ice Camp	do																																
Fales' Hot Springs	West Walker																	.77										.81					1.58
Glen Alpine Springs	Truckee																																
Hobart Mills	do														T.				.12	.05													0.17
Lundy	East Walker																	.85	.45	.10													1.40
Markleesville	East Carson																	.35	.24	.32													0.91
McKinney	Truckee																																
Shields' Ranch	West Walker																	.02	.01	.01						T.							0.04

TABLE 2.—*Daily precipitation for July, 1910. District No. 10*—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	
California—Cont'd.																																	
Silver Creek	East Carson																	.90	1.11	1.29													3.30
Tahoe	Truckee																																.....
Tallac	...do																																.....
Truckee	...do																																.....
Woodfords	West Carson																																.....
Nevada.																																	
Aurora	East Walker																																.....
Austin	Reese																																.....
Battle Mountain	Humboldt										T.				T.				.51														0.51
Beowawe	...do																																.....
Carlin	...do														.30	.13																	0.43
Carson Dam	Carson													T.	T.			T.															T.
Cherry Creek	Humboldt											T.	T.		T.	.02	.02	.33	.01	T.	.03	.01						.04	T.	T.			0.46
Clover Valley	...do														.19		T.	T.	T.	T.	.06							T.				.15	0.40
Cobre	...do														T.	T.		T.		.03								.02					0.05
Columbia	Desert														.04			.48									.06	.47	.04				1.09
Dutton	Humboldt				T.															.55													0.55
Elko	...do														.68	1.03	T.	T.		T.	T.												1.71
Ely	...do													.00			.25				T.					.60	T.	T.					0.94
Eureka	...do												T.		.54	.06	.02	.36		.10	T.					.05	.92	.02	.07	T.		.48	2.62
Fallon	Carson														.03						.02							T.	T.				0.05
Fernley	Truckee			T.											T.			T.		.19								T.	T.				0.19
Gardnerville	Carson														T.				1.00	.60	T.									.90			2.50
Geyser	Humboldt																																.....
Glenbrook	Truckee																																.....
Golconda	Humboldt														T.					.25													0.25
Halleck	...do														.26					.08													0.34
Jean	Desert													1.85	.40																		2.25
Leetville	Carson																	.30															0.30
Lewers Ranch	Truckee																	*	.15														0.15
Lovelock	Humboldt																		T.														T.
McAfee's Ranch	Desert																																.....
Millett	Reese										T.				.10			.31									.24	.35	T.		.30	.65	1.95
Mina	Desert										T.				T.			T.	T.	T.	T.	T.						T.	T.				T.
North Fork	Humboldt			T.	T.										.32	T.																	0.32
Palmetto	Desert																																.....
Paradise Valley	Little Humboldt			.10											.05																		0.15
Potts	Reese														T.	T.		.05			.03					.05	T.	.05	T.	T.			0.18
Quinn River Ranch	Humboldt				.10							T.			.08					.04	.10	.08											0.40
Reno	Truckee									.01					.01			1.02	.28	T.									.13				1.45
Rose Creek	Humboldt														.10					.35													0.45
Smith	West Walker													T.	T.			.20	.10	.02								.36	T.				0.68
Spooners Ranch	Truckee																																.....
Soda Lake	Carson														.06			.02	T.									T.					0.08
Sweetwater	East Walker													.05	.15						.10	.15	T.		.10		.15	.20	.65	T.			1.55
Tecoma	Humboldt											T.							T.									T.				T.	T.
Tonopah	Desert														.02			.10	T.		.17					.07	T.	.16	T.				0.52
Wabuska	Walker																	T.		.15								T.					0.15
Wells	Humboldt																																.....
Willow Point	Little Humboldt																																0.00
Winnemucca	Humboldt				T.										.05					.05								T.					0.10

TABLE 3.—*Maximum and minimum temperatures at selected stations, July, 1910. District No. 10, Great Basin.*

Date.	Wyoming.						Utah.																					
	Border.		Evanston.		Weston, Idaho.		Corinne.		Deseret.		Government Creek.		Ibapah.		Marysvale.		Meadowville.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.	
	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...	86	32	81	38	87	42	90	55	89	55	89	59	85	.....	86	39	85	36	85	46	.....	.....	83	49	95	59	90	62
2...	89	38	82	39	88	42	100	49	92	53	91	56	84	.....	88	41	88	40	87	46	89	57	85	48	95	50	91	67
3...	79	54	80	40	89	54	86	46	89	56	90	61	83	.....	85	54	87	51	86	56	87	65	86	58	89	57	89	71
4...	74	40	72	48	81	50	86	45	86	63	84	61	73	.....	78	58	87	57	81	52	80	67	80	63	88	66	85	64
5...	75	33	69	37	78	37	98	42	84	47	80	43	76	.....	84	41	70	38	85	47	80	47	83	46	87	49	76	57
6...	80	33	75	37	86	40	96	46	90	43	88	49	87	.....	88	39	83	38	90	44	89	53	87	51	96	48	87	54
7...	84	35	80	40	91	44	99	45	95	45	92	54	85	.....	91	42	86	44	93	49	91	59	90	54	92	51	90	64
8...	83	34	79	41	90	43	98	48	94	51	91	52	83	.....	91	43	85	47	95	50	90	60	90	57	90	53	91	62
9...	83	39	80	40	87	50	100	50	90	55	88	53	87	.....	89	51	78	48	92	55	87	59	90	58	88	52	84	65
10...	85	38	79	43	90	43	96	48	95	63	90	56	84	.....	91	44	80	48	90	54	88	61	87	58	94	52	90	64
11...	86	39	79	46	91	54	98	46	93	63	91	61	80	.....	91	45	84	41	93	58	89	63	91	57	90	57	89	66
12...	91	40	84	47	91	51	99	47	97	57	93	57	89	.....	90	50	88	50	93	52	87	63	90	57	98	57	91	65
13...	91	40	85	47	93	49	102	53	96	58	95	66	89	.....	90	51	90	42	90	55	94	64	90	57	101	58	97	68
14...	89	40	81	44	93	56	105	63	85	58	85	64	80	.....	80	60	82	50	72	58	87	66	74	50	93	58	91	69
15...	82	56	76	50	83	60	95	61	89	63	86	61	83	.....	81	51	80	58	84	56	86	63	76	56	91	63	86	65
16...	89	46	85	45	92	53	98	60	96	57	90	56	83	.....	80	54	82	50	84	60	91	65	81	56	93	60	89	65
17...	91	55	86	55	92	60	100	62	95	57	92	59	88	.....	90	50	84	60	92	57	90	69	89	55	95	60	96	66
18...	94	50	87	50	96	59	102	65	97	60	95	61	89	.....	92	58	92	54	94	64	94	70	88	55	101	60	96	69
19...	92	55	87	54	95	59	105	67	99	60	94	64	84	.....	88	60	84	61	91	61	92	72	91	56	100	64	97	72
20...	90	51	86	51	94	60	100	68	96	58	95	61	81	.....	88	54	89	54	95	58	90	70	91	60	96	63	94	72
21...	88	51	83	50	89	55	104	60	98	55	94	60	91	.....	92	52	87	49	96	57	92	68	93	60	96	61	92	68
22...	89	46	82	51	90	54	102	59	96	59	95	66	89	59	89	54	89	50	91	62	92	69	88	58	98	63	93	72
23...	79	37	78	40	85	43	97	62	92	71	88	50	85	49	89	59	78	42	91	63	86	54	91	59	98	50	85	61
24...	88	34	85	41	91	44	99	64	97	48	95	55	95	53	92	45	88	40	92	59	92	58	81	57	98	52	95	60
25...	93	29	86	45	93	50	102	62	96	54	96	65	84	59	94	53	89	45	88	61	92	63	81	56	101	58	96	69
26...	86	50	84	55	90	61	105	49	85	64	92	70	83	55	85	61	87	57	87	58	89	69	82	55	98	71	91	72
27...	87	55	80	56	80	60	98	45	86	62	85	61	75	55	79	56	83	60	83	60	83	68	81	56	89	63	82	62
28...	85	56	80	55	85	55	94	60	88	55	83	56	73	49	82	55	85	60	83	57	84	63	83	57	88	59	83	61
29...	88	50	81	48	91	51	98	60	92	60	90	58	84	53	83	56	80	50	89	59	87	65	84	57	96	61	88	67
30...	89	45	85	46	91	53	101	58	92	59	90	61	84	56	86	63	84	47	84	59	90	66	85	57	94	60	92	71
31...	87	43	82	48	91	55	99	65	89	65	86	64	.....	.....	77	55	80	49	84	56	85	68	81	57	94	59	92	62
Mns	86.2	43.7	81.3	46.0	89.1	51.2	98.5	55.2	92.2	57.2	90.1	58.7	83.9[a]	.....	86.7	51.1	84.3	48.9	88.4	55.8	88.4[a]	63.5[a]	85.5	55.8	94.3	57.6	89.8	65.5

Date.	Nevada.																											
	Burns, Oreg.		Elko.		Ely.		Eureka.		Fallon.		Jean.		Lovelock.		Millett.		Mina.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	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...	70	37	86	48	88	51	86	40	88	45	101	64	99	52	84	47	92	62	86	43	81	44	95	48	84	56	83	48
2...	74	38	88	48	91	55	86	51	87	48	101	75	95	48	87	42	92	60	84	41	77	50	94	47	83	60	85	48
3...	80	41	88	34	90	58	81	55	79	47	97	68	100	50	80	54	90	52	84	35	69	50	95	48	75	51	80	49
4...	76	40	84	36	92	61	75	43	77	38	93	60	102	54	7	36	80	48	.....	.....	73	40	86	41	69	41	73	48
5...	84	40	80	35	88	57	82	37	88	42	100	58	101	51	83	37	88	50	.....	.....	86	44	88	47	81	51	80	40
6...	91	50	86	38	86	54	91	46	93	47	108	88	100	49	89	37	94	56	93	37	91	53	94	48	88	60	92	46
7...	92	51	91	35	90	59	93	50	98	53	109	79	99	48	94	44	100	62	96	51	97	57	98	48	90	67	94	50
8...	93	56	90	36	84	49	92	50	99	55	109	84	98	41	94	50	102	66	94	64	96	59	96	46	91	71	89	58
9...	92	45	90	40	87	47	91	50	98	56	109	87	99	47	92	45	100	58	96	62	95	58	94	42	91	68	92	58
10...	94	42	91	39	90	50	91	53	103	57	109	70	101	43	91	49	104	64	.....	.....	95	62	88	46	91	68	96	60
11...	91	61	90	38	88	51	92	53	98	55	110	75	98	48	94	47	100	68	96	48	94	56	92	42	92	68	94	56
12...	93	59	95	44	84	54	92	52	99	58	107	75	91	46	94	45	98	50	95	49	94	58	94	42	89	68	95	52
13...	95	50	92	42	80	51	93	58	101	57	103	.....	95	41	91	50	100	61	99	46	95	60	102	45	86	64	97	51
14...	100	44	87	55	85	58	82	50	89	64	94	.....	85	36	80	50	98	54	81	42	83	62	89	47	78	58	78	57
15...	90	43	82	48	80	56	83	49	95	56	94	.....	101	39	86	48	92	50	88	43	87	55	92	46	81	56	89	54
16...	91	40	88	47	75	46	90	56	95	55	102	.....	100	37	91	48	96	60	93	49	91	52	92	49	87	61	93	56
17...	93	41	91	54	86	53	89	68	98	57	102	72	102	48	90	54	101	66	96	45	96	61	96	48	81	59	96	54
18...	94	42	89	47	84	52	89	68	94	60	103	72	93	54	86	50	98	54	97	68	87	61	98	48	84	57	95	65
19...	97	64	94	52	87	55	92	55	96	58	105	80	98	50	93	53	102	50	98	57	91	61	86	50	90	64	94	58
20...	88	58	90	57	82	58	90	50	97	58	108	70	94	50	89	56	100	54	94	55	91	58	88	52	88	63	92	60
21...	95	42	90	50	94	50	89	53	101	62	109	70	98	53	94	53	98	60	94	54	91	57	92	56	92	65	94	60
22...	80	37	91	52	90	51	90	56	97	51	103	81	95	50	93	50	98	64	89	51	88	61	90	50	90	68	91	55
23...	90	42	92	54	95	58	91	54	96	48	103	71	98	49	95	45	98	66	93	33	93	50	86	48	91	62	92	50
24...	94	52	95	40	92	51	93	56	100	56	101	75	99	50	95	45	102	60	96	51	96	55	90	52	90	66	97	48
25...	94	56	95	43	81	52	90	57	101	55	99	76	101	53	91	48	104	68	98	52	95	57	102	55	85	62	98	51
26...	93	52	95	46	85	56	89	55	96	62	102	71	98	52	88	52	102	54	94	64	92	65	96	62	83	61	93	65
27...	92	50	82	48	88	53	83	50	95	61	97	70	95	50	84	56	100	60	94	56	90	60	88	55	79	56	93	63
28...	93	54	88	55	89	55	83	52	95	52	101	72	92	44	83	49	98	60	94	54	87	58	86	48	83	59	92	59
29...	93	52	90	51	91	57	83	51	96	54	102	72	95	46	90	50	98	64	94	55	91	56	88	44	87	63	93	62
30...	93	51	93	48	91	52	83	52	98	58	99	74	98	48	89	52	98	64	96	52	94	58	92	46	90	64	97	52
31...	94	48	86	65	89	51	84	53	98	59	103	70	.....	.....	90	57	100	56	95	57	90	58	86	45	87	64	95	59
Mns	90.1	47.7	89.3	46.0	87.2	53.6	87.7	52.6	95.0	54.3	102.7	63.8[d]	97.3[a]	47.6[a]	88.9	49.0	97.5	58.7	93.1[c]	50.5[c]	89.5	56.0	92.0	48.1	85.7	61.3	91.0	54.6