Climatological Data for July, 1910.

DISTRICT No. 9, COLORADO VALLEY,

FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

A continuation of the hot, dry weather and clear skies that characterized May and June obtained until nearly the middle of the month, broken only by light scattered showers. With a change in the general distribution of pressure cloudless skies were less persistent, and the long looked for seasonal thundershowers set in, with here and there heavy downpours. At Bisbee, Ariz., 4.25 inches fell on the 22d, causing washouts; while at Bloomfield, N. Mex., 1 inch fell on the 27th in 30 minutes. As a result of the protracted drought the ranges throughout the district remained in an unsatisfactory condition. A marked improvement quickly followed the rains in Arizona, and in a less degree in more northerly districts. A decided shortage of water for irrigation was experienced in the southern counties of Arizona until the 15th. Similar conditions prevailed in the southwestern parts of New Mexico and Colorado.

TEMPERATURE.

The mean of the 131 stations reporting was 75.4°, or 0.3° above the normal. An excess was general, except in southwestern New Mexico and southern Arizona, and in a few localities in the valleys of the Green and Grand rivers. By subdivisions the means and departures were: Western Wyoming, 64.4°, +3.4°; western Colorado, 65.0°, +0.4°; eastern Utah, 74.2°, +1.9°; western New Mexico, 74.3°, +0.7°; southeastern Nevada, 82.7°; Arizona, 83.2°, −0.3°. The highest monthly mean was 97.2° at Mohawk Summit, Ariz., and the lowest, 50.3° at Corona, Colo.

In the northern part of the district daily mean temperatures were slightly below the normal during the first 15 days; then followed high mean temperatures, almost to the close of the month. In the southern part of the district the changes were more frequent but not important.

For the subdivisions included in District No. 9, the extremes observed were: Wyoming, 98° and 31°; Colorado, 102° and 27°; Utah, 110° and 34°; New Mexico, 106° and 34°; Nevada, 114° and 40°; and Arizona, 123° and 36°.

PRECIPITATION.

The average precipitation for the 177 stations reporting was 1.70 inch, or 0.18 inch above the normal. In Wyoming and Nevada practically none occurred prior to the 15th, and the amounts noted during the rest of the month were small. In Colorado beneficial showers fell on the 3d and 4th; showers were general after the 12th, especially from the 27th to the close of the month. In Utah showers also occurred on the 3d and 4th; they were general on the 14th and 15th. From the 26th to the close of the month the precipitation was heavier and of benefit. Prior to the 12th or 13th only light and scattered precipitation occurred in New Mexico and Arizona. A moderately wet period ended on the 16th or 17th; and from the 21st or 22d rain fell almost daily. By watersheds the means and departures were: Green, 1.14, +0.09; Grand, 1.32, +0.03; San Juan, 2.06, +0.21; Little Colorado, 2.36, +0.77; Gila, 2.14, +0.24; Mimbres, 1.25, −1.00; Colorado, proper, 1.03, +0.42 inch. The greatest monthly amount was 5.72 inches at Bisbee, Ariz., and the least, a trace, at Mohawk Summit, Ariz., and Hite, Utah. The average number of days with 0.01 inch or more of precipitation was seven.

RIVERS.

The volume discharged by the Grand and the Green rivers was small as compared with that of the corresponding month last year. In the Grand River gage heights averaged 3 feet lower, and in the Green River 4 feet lower than last July. In the Colorado, proper, the average gage height was 11.4 feet lower at Grand Canyon, Ariz., and 7.4 feet lower at Yuma, Ariz., than a year ago.

MISCELLANEOUS.

The percentage of sunshine was close to the normal. Grand Junction reported 83, Flagstaff 69, Phoenix 84, and Yuma 91 per cent of the possible.

The mean monthly relative humidity ranged from 36 per cent at Grand Junction to 60 per cent at Flagstaff.

PUMPS AND ELECTRIC POWER, GILA INDIAN RESERVATION, ARIZ.

When the pumping station now being installed at wells already constructed on the Gila Indian Reservation, and within a short distance of Mesa, are completed, 15,000 acres of irrigated land will have been added to the agricultural area of the Salt River Valley, without a drop of water from the Roosevelt Dam.

This announcement was made by Louis C. Hill, Supervising Engineer, United States Reclamation Service, Phoenix, Ariz., after his return from an inspection of the Gila River wells, near Sacaton.

The irragation engineers were forced to go to a depth of 60 feet for water in almost every one of the nine wells at Sacaton and the six wells located from 7 to 9 miles south of Mesa.

With the 60-foot shafts constructed to get the pumps at water level, and all other work, including the digging of the wells, machinery, and power line construction, they will cost $10,000 each. This is a considerable amount to pay for a well, but when it is realized that each well irrigates 1,000 acres of land, the question of cost vanishes. It costs much more than that to irrigate the land under the Roosevelt Project.

The wells at Sacaton are all on the Gila River Indian Reservation, and were dug and constructed for the benefit of the Indians exclusively. They will result in much increased prosperity for these national wards, who are paying every dollar of the cost, without recourse to the white man, and they will maintain the wells in the future, although the Government will furnish them electric power from the Roosevelt Dam.

The same thing is true of the Mesa wells, save that these wells are for the benefit of the white farmers, and will be paid for and maintained by them.

This addition of 15,000 acres to the irrigated area of the Salt River Valley lands is a large item in the life of this valley, and one that is gained absolutely over and above the Roosevelt Project.

SCHOOLS OF FISH IN SALT RIVER POWER CANAL, ARIZONA.

An incident of more than ordinary interest occurred at Roosevelt on July 26. Quite heavy rains had fallen over the Apache Mountain Range, on the upper watershed of the Salt River, north of Globe, Ariz., on the 25th. The moderate runoff reached the Intake at Livingstone late on the 25th and at Roosevelt on the 26th. A part of this flood water was diverted into the power canal at Livingstone, which discharges into the penstock, for the turning of the large water wheels. The fish in the upper Salt River, retreating before the flood, sought the clear water of the power canal in unusually large numbers, so great in fact that many tons of them were driven down through the power canal for about 10 miles to the large screen at the head of the penstock, wedging it so full that the water was literally dammed up and the turbine wheels could not rotate. This necessitated the switching off of the power on the power transmission line running between Roosevelt and Phoenix, and

Phoenix, Mesa and Tempe were without power and light for fully an hour on the 26th.

A similar incident occurred at the Roosevelt Dam in August, 1909, but on that occasion there was only two or three tons of fish, which did not stop the water wheels. In the case of this year, there were a great many more fish. The screen at the penstock is a conical shaped device some 12 feet in diameter at the upstream end, and is 20 feet in height. Within it is a sort of trough above the surface of the canal water, sloping down grade to a point on the bank of the canal above the screen. A little pump supplies this trough with water, and the screen, revolving through its sides and lower end strains the water into the penstock, shooting the sticks and wood, leaves and débris into the trough, whence it is washed out. The device works excellently under ordinary conditions, and with a fair amount of running fish, but on the 26th the fish came down the canal in such large quantities that they choked the screen and shut off the water. The services of four men were required for one full hour to shovel the fish into the trough and float them out to the dump pile over the side of the bank. There they fell down the hillside along the pathway of the little rivulet supplied by the trough pump, into a larger ditch below, into which a large head of water was turned, and they were washed down into the reservoir. It is needless to say that the entire population of Roosevelt lived on fish for nearly one week thereafter.

In this connection, it may be pertinent to state that the Government Fish Commissioner intends to fully stock the Roosevelt Reservoir with a large variety of fish, for none of the fish came out of the Roosevelt Reservoir, but several miles above it, from the upper Salt River. The fish in the reservoir can not get into the power canal, unless they jump or crawl 60 to 150 feet higher, which is not an impossibility among the eel family.

CHANGE IN CHIRICAHUA NATIONAL FOREST.

The President has signed a proclamation adding 30,560 acres to, and at the same time eliminating 57,297 acres from, the Chiricahua National Forest in Arizona and New Mexico. These changes are the result of a careful examination made by the Secretary of Agriculture, which showed that the areas excluded are not needed for forest or watershed protection.

The most important of these changes is the elimination from the forest reserve of a large area, consisting for the most part of grass land, on the southern and eastern boundaries of the New Mexico division which was formerly known as the Peloncillo National Forest. This will leave Sanders Pass and the surrounding territory on the southern slope of the Animas Range entirely outside of the forest lines. Smaller eliminations of nonforest lands are also made from the Chiricahua and Peloncillo divisions.

The additions comprise a number of areas of juniper and pinion scattered along the exterior boundaries of the Chiricahua, Peloncillo, and Dragoon divisions. The latter division, by the recent proclamation, has been transferred from the Coronado to the Chiricahua National Forest.

The unappropriated portions of the lands eliminated by this proclamation will be restored to settlement and entry after having been advertised in the local papers by the Secretary of the Interior.

TABLE 1.—*Climatological data for July, 1910. District No. 9, Colorado Valley.*

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.		
Wyoming.																				
Battle Mountain	Carbon	7,300																		U. S. Forest Service.
Daniel	Uinta	6,740	11	59.4	+ 3.2	85	14†	31	7†	49	0.33	− 0.49	0.23	0.0	2	10	12	9	nw.	J. M. Van Dervort.
Eden	Sweetwater	6,577	2	65.2		91	18	34	6	51	0.82		0.53	0.0	6	10	16	5	w.	Eden Valley L. & I. Co.
Green River	do	6,083	5	71.4		98	25	38	6†	52	0.35		0.28	0.0	4	14	14	3	w.	Geo. W. Maxon.
Pinedale	Fremont	7,167	4																	U. S. Forest Service.
Rambler	Carbon	9,232									2.18		0.52	0.0	7	7	23	1	w.	J. C. Fothergill.
Willow Creek Cabin	Freemont	7,500	2																	J. L. Allen.
Colorado.																				
Ashcroft	Pitkin	9,483	8	57.2		83	19†	32	1	46	1.88		0.61	0.0	11					Dan McArthur.
Bed Rock	Montrose																			W. B. Weybright.
Breckenridge	Summit	9,536	20	55.4[m]	+ 2.0	82	26	30	3†	47[m]										Mrs. J. G. Thompson.
Cascade	San Juan	8,900	4								2.79		0.71	0.0	18	12	12	7	e.	San Juan P. & W. Co.
Chromo	Archuleta	7,500	4	63.1		93	19†	30	2	55	1.92		1.03	0.0	7	8	21	2	sw.	Lawrence Nolan.
Cochetopa	Saguache	9,088									0.89		0.35	0.0	9	6	21	4	w.	Bessie McDonough.
Collbran	Mesa	6,000	17	69.8		91	19†	47	1†	38	0.71	− 0.43	0.30	0.0	5	19	11	1	sw.	A. A. Wood.
Columbine	Routt	8,766																		Mrs. M. A. Caron.
Columbine Ranch	Delta	6,925									1.67		1.18	0.0	6	15	6	10	s.	Geo. W. Wade.
Corona	Grand	11,660	3	50.3		65	24†	30	9	25	1.10		0.76	0.0	2				w.	U. S. Weather Bureau.
Crawford (near)	Montrose	6,600		71.1		91	20	49	5	33	0.27		0.10	0.0	5	15	16	0		C. W. Roe.
Crested Butte	Gunnison	8,867		56.6		83	19†	29	5†	51	1.56		0.80	0.0	6	13	16	2	w.	Charles L. Ross.
De Beque	Mesa	4,935				102	20†				0.24		0.10	0.0	3	20	10	1		C. M. Paine.
Delta	Delta	4,965	19	75.8	+ 1.6	101	18†	47	1†	50	0.18	− 0.68	0.07	0.0	4	15	14	2		E. M. Getts.
Dillon	Summit	8,800	1	71.2		83	23	57	12	22	2.36		0.50	0.0	10	18	13	0	n.	Harry T. Hamilton.
Dolores	Montezuma	6,500	1																	Geo. R. Simmons, jr.
Durango	La Plata	6,534	17	69.3	+ 0.4	94	19	44	2	43	0.95	− 0.63	0.48	0.0	12	3	27	1	nw.	U. S. Weather Bureau.
Eagle	Eagle	6,598	5	63.6		91	15†	35	3	50	1.58		0.67	0.0	7	19	11	1	w.	J. M. Witteman.
Eureka	San Juan	10,000	3								2.11		0.31	0.0	16					San Juan P. & W. Co.
Fraser	Grand	8,560		54.2		81	27	27	7†	50	2.06		0.64	0.0	12	13	7	11	n.	L. D. C. Gaskill.
Fruita	Mesa	4,510	11	76.2	+ 1.0	102	20†	49	8	50	1.45	+ 0.66	0.67	0.0	3	16	14	1	sw.	J. B. Willsea.
Gladstone §	San Juan	10,400	3								2.96		0.70	0.0	9	2	27	2	sw.	San Juan P. & W. Co.
Glenwood Springs (near)	Garfield	5,823	12	67.8	− 0.1	98	28	40	3†	55	2.28	+ 1.28	0.95	0.0	6	25	6	0	w.	E. A. O'Neil.
Grand Junction	Mesa	4,608	19	78.8	− 0.4	101	22	59	1	41	0.96	+ 0.46	0.68	0.0	6	15	14	2	nw.	U. S. Weather Bureau.
Grandlake	Grand	8,153	2								1.57		0.50	0.0	6					Mrs. Belle Kauffman.
Grand Valley	Garfield	5,089	18	74.2	+ 1.4	101	19	43	2	53	0.67	− 0.23	0.17	0.0	6	27	4	0		David Evans.
Gunnison	Gunnison	7,670	17	63.0	+ 2.0	90	19†	30	3	54	1.00	− 0.20	0.57	0.0	6	16	14	1	sw.	Clarence Adams.
Horsefly	Montrose	8,700																		I. J. Finch.
Ironton	Ouray	10,000									3.02		0.94	0.0	18	2	28	1	sw.	P. H. Foley.
Kremmling (near)	Grand	7,337	1	63.1		93	26	37	2	49	1.84		0.45	0.0	12	12	12	7		H. A. Howe.
Lake City	Hinsdale	8,686	5	63.0		87	19	35	5	43	1.24		0.39	0.0	11	4	25	2	s.	J. F. Maurer.
Lay	Routt	6,190	16	67.5	+ 0.8	96	19†	32	6	56	0.97	+ 0.09	0.40	0.0	5	18	8	5	sw.	A. G. Wallihan.
Leal	Grand	8,750									0.28		0.06	0.0	10	6	24	1		L. J. Wade.
Lujane	Montrose	6,620	4	73.2		95	20	49	2	41	0.87		0.44	0.0	4	18	13	0	sw.	U. S. Reclamation Service.
Mancos	Montezuma	6,960	11	67.8	+ 1.6	92	19†	40	1†	45	2.39	+ 1.18	0.78	0.0	8	5	26	0	sw.	B. M. Krumpanitzky.
Marble	Gunnison	7,951	1	61.9		90	25†	35	1†	50	1.47		0.41	0.0	8	14	15	2	e.	Homer Harrington.
Marshall Pass	Saguache	10,846	7																	William D. Lillard.
Meeker	Rio Blanco	6,182	18	64.0	− 1.5	90[a]	26	38	9†	47[a]	1.00	− 0.60	0.15	0.0	9	13	12	6	sw.	T. Baker.
Montrose (near)	Montrose	5,811	21	65.8	− 4.2	90	2†	44	1†	46	0.10	− 0.71	0.06	0.0	3	18	13	0		R. Butterfield.
Nast	Pitkin	7,953		59.7		84	24†	38	1†	44	1.72		0.74	0.0	6	17	14	0	w.	Arthur Hanthorn.
Pagoda	Routt	6,500	19	64.3	+ 0.4	93	25	35	6†	55	1.89	+ 0.63	0.81	0.0	6	28	1	2		Shaw Brothers.
Pagosa Springs	Archuleta	7,108	3	64.4		95	19	32	1	54	2.47		0.46	0.0	14	3	27	1	sw.	E. T. Walker.
Paonia	Delta	5,694	15	73.1	+ 0.1	96	26	49	1†	41	0.31	− 0.67	0.18	0.0	3	21	7	3	sw.	J. M. Underwood.
Parshall	Grand		1								1.34		0.44	0.0	7					F. A. Field.
Pitkin	Gunnison	9,500	1								1.39		0.38	0.0	9	18	12	1		Mrs. Maggie Cammann.
Rangely	Rio Blanco	5,050	11																	Mrs. C. P. Hill.
Redcliff	Eagle	8,695	15								2.45	+ 0.43	0.80	0.0	6	16	7	8		Dorothea Greiner.
Rico	Dolores	8,824	8								2.00		0.62	0.0	11	12	11	8	sw.	Clinton B. Smith.
Rifle	Garfield	5,437																		Horace Mann.
River Portal	Montrose	6,570	4	71.6		97	18†	43	4	46	1.11		0.65	0.0	3	11	11	9		U. S. Reclamation Service.
Sapinero (near)	Gunnison	8,125	8	61.0		86	20†	33	2	44	1.21		0.45	0.0	8	18	10	3	w.	W. F. Irving.
Shoshone	Garfield	6,110		71.2		93	26	48	5	32	0.60		0.27	0.0	11	9	17	5		Central Colo. Power Co.
Silverton (1)	San Juan	9,285	6	57.7		84	19	29	2	47	2.05		0.30	0.0	14	10	21	0	sw.	A. P. Root, jr.
Silverton (near) §	do	9,400	3	55.6[i]		78[i]	20	28[k]	2	44[i]	2.36		0.61	0.0	14	3	21	7	sw.	San Juan P. & W. Co.
Spruce Lodge	Grand	9,600	2								3.24		0.69	0.0	13					H. J. Wills.
Steamboat Springs	Routt	6,683	7	61.6		92	25†	29	24	61	1.23		0.29	0.0	6	28	2	1		M. E. Houston.
Tacoma §	La Plata	7,300	3	66.6		91	18	46	1†	39	3.28		0.90	0.0	6	9	20	2	n.	San Juan P. & W. Co.
Terminal Dam §	do	8,300	3								2.15		0.40	0.0	20	5	25	1	s.	Do.
Terrill's Ranch	Mesa	7,000									0.69		0.27	0.0	6	18	12	1	sw.	A. F. Terrill.
Uncompahgre Plateau	Montrose	8,400									1.51		0.28	0.0	9	12	19	0	sw.	Martin Esser.
Whitepine	Gunnison	9,500	10	56.2		80	26	32	3†	42						9	20	2	s.	C. E. Macy.
Yampa (near)	Routt	8,000	1								1.62		0.41	0.0	9	5	24	2	w.	Percy A. Hughes.
Utah.																				
Baker	San Juan	7,560	1								1.91		1.30	0.0	11	25	4	2	s.	Maude A. Palmer.
Basin	Grand	9,500	1								2.19		0.74	0.0	11	6	25	0	w.	E. H. Wolf.
Castle Dale	Emery	5,500	11	71.9	+ 3.1	97	18†	40	24	55	0.65	+ 0.07	0.30	0.0	5	20	11	0		James Jeffs.
Elkhorn	Unita	6,657												0.0	7	6	6	19		Forest Supervisor.
Emery	Emery	6,260	10	67.8	+ 2.6	90	20†	41	2	42	0.20	− 0.21	0.20	0.0	1	2	3	26	sw.	H. C. Wickman.
Escalante	Garfield	5,700	10	70.0	+ 0.2	93	24	45	1	42	3.21	+ 2.31	1.25	0.0	8	13	0	18		Geo. H. Barney.
Fort Duchesne	Uinta	5,000	22	73.3	+ 2.4	102	18	40	6	54	0.67	+ 0.18	0.30	0.0	5	13	6	12	w.	Post Surgeon.
Fruitland	Wasatch										1.69		0.52	0.0	9	13	15	3	sw.	J. Peter Naab.
Grayson	San Juan	5,750	6								0.05		0.03	0.0	3	11	11	9	sw.	Joseph A. Lyman.
Green River	Emery	4,080	13	83.2	+ 3.5	108	20	55	24	52	0.67	+ 0.46	0.46	0.0	3	22	8	1	nw.	B. F. Miller.
Hanksville	Wayne		1																	F. J. Weber.
Hite	Garfield	3,000	11	87.3	+ 2.9	110	20	61	1†	39	T.	− 0.45	T.	0.0	0	12	17	2		John P. Hite.
La Sal	San Juan	7,000	10	69.2	+ 1.5	90	20	46	1	33	1.50	+ 0.76	0.57	0.0	9	12	6	13		Chas. L. Glassmire.
Loa	Wayne	7,000	18																	Michael Hansen.
Manila	Unita										0.93		0.35	0.0	7	6	23	2	w.	Daniel M. Nelson.
Moab	Grand	4,000	21	79.3	+ 1.9	105	20	51	1†	49	0.25	− 0.36	0.21	0.0	4	12	14	5		Henry Crouse.
Monticello	San Juan		2																	D. B. Perkins.
Orderville	Kane		1								1.39		0.43	0.0	10					F. A. Porter.
Price	Carbon	5,557																		H. C. Smith.
Ranch	Kane	6,700	9	64.0		90	19†	34	1†	47	2.88		0.78	0.0	8	11	16	4	w.	J. W. Seaman.
Saint George	Washington	2,880	29	83.2	+ 1.0	110	28	50	5†	56	1.72	+ 0.75	0.70	0.0	5	8	10	13		Joseph T. Atkin.
Scofield	Carbon	7,625	2																	O. E. Jorgensen.
Springdale	Washington		3	84.6		107	18	59	3†	40	0.18		0.18	0.0	1	10	11	10		Hattie Flanigan.
Sunnyside	Carbon	5,280	5								1.46		0.50	0.0	6					Henry Cullum.
Teasdale	Wayne	7,000	2	68.6[e]		87[d]	21	46[e]	1	31[e]	1.04		0.48	0.0	7	5[g]	0[g]	19[g]		Josiah Shurtz.
Theodore	Wasatch	5,507	5	69.6		96	19†	42	2	48	1.05		0.25	0.0	9	10	10	11		M. M. Smith.

TABLE 1.—*Climatological data for July, 1910. District No. 9*—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.
Utah—Cont'd.																				
Tropic	Garfield	7,000	13	69.3	+ 2.1	96	21	39	5	43	1.04	+ 0.15	0.52	0.0	6	5	20	6	sw.	E. P. Bolton.
Trout Creek Ranger	Unita	9,200									3.05		0.85	0.0	12	7	15	9		Forest Supervisor.
Vernal	do	5,050	15	71.0	− 0.7	98	25	43	6	48	1.12	+ 0.38	0.42	0.0	4	25	5	1		S. P. Trim.
New Mexico.																				
Alma	Socorro	5,500	14	77.8	+ 3.3	106	8	45	1	57	1.65	− 0.69	1.00	0.0	7	4	20	7	sw.	M. A. Balke.
Aragon	do	5,856	3	66.0		98	21	40	7	54	1.14		0.35	0.0	8	7	22	2	sw.	John R. Milligan.
Blackrock	McKinley	6,500	2	71.4		95	20	44	3	45	2.58		0.56	0.0	8	6	21	4	w.	Wm. J. Oliver.
Bloomfield	San Juan	5,500	15	76.9	+ 2.1	106	20	44	2	56	1.56	+ 0.76	1.00	0.0	6	0	31	0	se.	Fred Le Clerc.
Cambray	Luna	4,215	11								0.79	− 0.47	0.64	0.0	3	5	23	3	e.	Southern Pacific Co.
Columbus	do.	4,054	1			105	7	64	11†		0.54		0.18	0.0	7	21	0	10	w.	El Paso & Southwest. R.R.
Deming	do	4,333	33	80.6		105	5†	57	11	46	0.96	− 0.96	0.70	0.0	5	5	14	12	w.	Southern Pacific Co.
Dulce	Rio Arriba	6,767	3	67.8	+ 2.7	95	16†	34	2	54	2.03	− 0.54	0.79	0.0	15	7	22	2	w.	G. H. Blakeslee.
Fort Bayard	Grant	6,152	35	72.6	− 0.1	94	2†	48	11	43	1.45	− 1.55	0.35	0.0	7	18	13	0	e.	U. S. Gen'l. Hospital.
Fort Wingate	McKinley	6,997	46	69.5	− 2.3	92	20†	48	2†	40	2.40	+ 0.16	0.60	0.0	10	3	12	16	sw.	Medical Corps, U. S. A.
Fruitland	San Juan	4,800	17	75.8	+ 0.8	101	18†	43	2	53	0.90	+ 0.28	0.80	0.0	2	10	20	1	sw.	Cyril James Collyer.
Gage	Luna	4,486	3	81.1		104	2†	59	11	44	0.68	− 1.02	0.26	0.0	3	13	18	0	e.	Southern Pacific Co.
Gila (near)	Grant	4,470	11	77.2	− 0.1	106	7	41	1	58	2.47	− 0.10	1.15	0.0	5					T. J. Clark, sr.
Gila Planting Station	do	6,475																		U. S. Forest Service.
Hachita	do	4,504	1								0.97		0.45	0.0	4	11	20	0	nw.	El Paso & Southwest. R.R.
Haynes	Rio Arriba	6,600																		Dr. John Roger Haynes.
Hermanas	Luna	4,451	1								0.07		0.02	0.0	5	21	10	0	w.	El Paso & Southwest. R.R.
Lordsburg	Grant	4,245	10	82.2	− 1.1	1.05	8	58	2	44	2.09	+ 0.35	0.56	0.0	6	6	21	4	sw.	Southern Pacific Co.
Luna	Socorro	7,300	5	66.7		90	1†	38	2	51	1.70		0.50	0.0	8	1	30	0	s.	C. B. Martin.
Mimbres	Grant	5,007	5			102	4				2.37		0.67	0.0	8	14	17	0	se.	Chas. Dennis.
Pratt	do	4,415	1								3.79		1.30	0.0	6	14	15	2	e.	El Paso & Southwest. R.R.
Putnam	San Juan	6,200									1.07		0.84	0.0	3	24	7	0	e.	Miss Elenor L. Quick.
Redrock	Grant	4,150	5								4.34		0.98	0.0	8	5	26	0		Robert H. Woods.
Rodeo	do	4,118	1								3.26		0.90	0.0	10	19	12	0		ElPaso & Southwest. R.R.
Rosa	Rio Arriba	6,000	5																	B. A. Candelario.
Arizona.																				
Alliares Ranch	Cochise	4,184	14								1.70	− 0.92	1.57	0.0	5	18	5	8	w.	Thos. Allaire.
Arizona Canal Dam	Maricopa	1,372	17	89.6	− 0.4	112	7†	62	1	42	1.60	+ 0.37	0.82	0.0	4	5	20	6	s.	U. S. Reclamation Service.
Aztec	Yuma	492	11	92.2	− 3.4	118	20	64	1†	53	0.31	− 0.16	0.20	0.0	4	20	4	7	w.	Southern Pacific Co.
Benson	Cochise	3,523	30	82.2	− 3.2	107	7	60	5	42	1.70	− 0.29	0.60	0.0	6	2	14	15	e.	Southern Pacific Co.
Bisbee	do.	5,500	20	75.6	+ 0.1	95	7†	59	28	28	5.72	+ 2.06	4.25	0.0	8	16	15	0	e.	Rev. J. G. Pritchard.
Bonita	Graham	4,916																		A. Johnson & Co.
Bowie	Cochise	3,756	34	83.6	+ 2.9	108	6†	58	1	43	1.30	− 1.59	0.65	0.0	7	7	18	6	sw.	Southern Pacific Co.
Buckeye	Maricopa	980	19	89.9	+ 2.6	116	7	56	1	51	0.79	− 0.31	0.71	0.0	3	24	7	0	s.	H. E. Kell.
Camp Verde	Yavapa	3,160																		T. R. Gabbard.
Canille	Santa Cruz	5,225	1								4.78		1.15	0.0	10	0	23	8	se.	R. A. Rodgers.
Casa Grande	Pinal	1,396	29	93.6	+ 0.4	116	7†	60	2	52	1.25	+ 0.51	0.50	0.0	7	15	12	4	sw.	Southern Pacific Co.
Cave Creek	Maricopa	1,520	3	87.4		114	7†	53	2	55	2.22		0.72	0.0	6	22	8	1		E. A. Howard
Chin Lee	Apache	6,090	2	75.6		100	20	44	7	50	1.96		0.90	0.0	9	4	15	12	sw.	Fr. L. Ostermann, O. F. M.
Chlarsons Mill	Graham	8,000	3																	H. R. Chlarson.
Clifton	do	3,584	20	88.7		109	8	65	13†	34	2.22	+ 0.48	0.88	0.0	7	18	13	0		P. Reisinger.
Cline	Gila	2,300	11	86.4		109	7†	55	1	50	1.05	− 0.55	0.73	0.0	2	8	19	4	sw.	W. M. Clanton.
Cochise	Cochise	4,219	12	78.1	− 3.7	103	7†	54	16	38	2.61	+ 0.57	1.45	0.0	4	12	14	5	e.	Southern Pacific Co.
Columbia	Yavapai	1,900	10	91.0	+ 3.0	112	7	74	1	32	1.05		1.05	0.0	1	14	13	4	se.	M. J. Nolan.
Congress	do	3,688	14	84.0	− 1.4	105	7†	63	18	35	5.22	+ 3.45	2.15	0.0	10	12	12	7	sw.	Congress Mine.
Courtland	Cochise	4,543	1								2.17		0.47	0.0	9	3	28	0	sw.	El Paso & Southwest. R.R.
Dos Cabezos	do	5,250	2	77.9		108	7	50	4	56	4.06		2.15	0.0	7	9	20	2	e.	N. Erickson.
Douglas	do	3,930	7	81.2		107	6	57	2	48	2.52		0.97	0.0	12	9	20	2	sw.	Dr. F. T. Wright.
Dudleyville	Pinal	2,204																		G. F. Cook.
Fairbank	Cochise	3,862	1								4.82		2.60	0.0	9	9	3	19		El Paso & Southwest, R.R
Flagstaff	Coconino	6,907	18	65.4	+ 0.4	91	20	36	1	46	3.07	+ 1.28	0.60	0.0	13	9	14	8	sw.	U. S. Weather Bureau.
Florence	Pinal	1,504	11	88.0	+ 1.8	115	20	62	2†	50	2.15	+ 0.64	1.40	0.0	3	10	8	13	w.	Pacific & Eastern R. R.
Fort Apache	Navajo	5,200	39	74.2	+ 0.1	98	7	46	1	48	2.07	− 0.84	0.60	0.0	8	12	15	4	s.	Post Surgeon, U. S. A.
Fort Huachuca	Cochise	5,100	25	75.8	− 1.3	103	3	50	23	44	3.40	− 0.23	1.20	0.0	6	12	12	7	nw.	Post Surgeon, U. S. A.
Fort Mohave	Mohave	604	37	94.8	+ 0.1	117	14	65	9	41	0.18	− 0.05	0.12	0.0	2	14	16	1		A. F. Duclos.
Gilabend	Maricopa	737	20	93.6	− 0.8	119	5	67	17	49	0.43	− 0.27	0.13	0.0	4	23	6	2	s.	Southern Pacific Co.
Globe	Gila	3,525	9	82.6		107	7	59	1†	39	2.18		1.22	0.0	7	10	21	0	nw.	Dr. B. G. Fox.
Grand Canyon	Coconino	6,866	7																	Grand Canyon Ry.
Greer	Apache	9,200	6								2.94		0.50	0.0	15	6	6	19	s.	Mrs. M. Butler.
Hereford	Cochise	4,180	1								3.82		1.27	0.0	10	5	0	26	s.	El Paso & Southwest. R.R.
Holbrook	Navajo	5,069	20	77.2	+ 1.5	104	8†	49	15	49	2.63	+ 1.03	0.48	0.0	10	21	3	7	sw.	T. Larson.
Intake	Gila	2,230	5								1.45		0.60	0.0	4	12	14	5	sw.	A. J. Robinson.
Jerome	Javapai	4,743	13	80.4	+ 0.1	100	20†	62	14	29	1.62	− 0.58	0.42	0.0	6	10	19	2	s.	Dr. L. A. Hawkins.
Keams Canyon	Navajo	6,600	7	71.7		95	20	43	1	44	3.84		0.93	0.0	13	3	28	0	sw.	L. R. Ballard.
Kingman	Mohave	3,326	9	82.2		110	21	48	1	52	0.85		0.32	0.0	4	13	16	2	sw.	J. R. Gooding.
Lewis Springs	Cochise	4,029	1								2.47		1.29	0.0	7	6	16	9		El Paso & Southwest. R.R.
Maricopa	Pinal	1,186	33																	Southern Pacific Co.
Mesa	Maricopa	1,244	16	86.6	− 2.1	109	6	60	13	45	0.88	− 0.16	0.63	0.0	2	12	17	2	sw.	C. L. Diehl.
Mohawk Summit	Yuma	538	10	97.2	+ 0.0	123	7	80	25†	33	T.	− 0.15	T.	0.0	0	10	18	3	e.	Southern Pacific Co.
Naco	Cochise	4,579	1								2.64		0.77	0.0	8	12	19	0	w.	El Paso & Southwest. R.R.
Natural Bridge	Gila	4,990	21								1.95	− 0.35	0.82	0.0	5	13	18	0	sw.	D. G. Goodfellow.
Nogales	Santa Cruz	3,830																		Wallace & Summerhayes.
Oracle	Pinal	4,500	18																	W. H. Winters.
Osborn	Cochise	4,676	1								3.43		2.30	0.0	9	3	22	6	nw.	El Paso & Southwest. R.R.
Paradise	do	3,940	3	73.4		98	12	48	13	43	2.27		2.09	0.0	7	1	20	10	sw.	J. C. Hancock.
Parker	Yuma	345	13	88.0	− 4.1	118	11	60	5	52	0.52	+ 0.14	0.30	0.0	2	16	15	0		Dr. H. V. King.
Payson	Gila	5,500	2	74.2		96	6†	43	1	47	1.03		0.35	0.0	4	3	7	21	sw.	M. McDonald.
Phoenix (1)	Maricopa	1,108	15	89.6	− 0.8	111	20	68	1	38	0.65	− 0.42	0.30	0.0	5	14	14	3	w.	U. S. Weather Bureau.
Pinal Ranch	Pinal	4,520	16								1.98	− 0.57	1.10	0.0	6	13	15	3		Irion & Craig.
Pinto	Apache	5,660	5																	Mrs. C. F. Henning.
Prescott	Yavapai	5,320	42	72.5	+ 0.9	97	20	46	1†	43	1.89	− 0.99	0.52	0.0	11	17	5	9		Dr. J. W. Flinn.
Quartzsite	Yuma	800	3	92.2		114	7†	66	1	42	0.81		0.56	0.0	5	19	12	0	w.	W. E. Scott.
Redrock	Pinal	1,856	3	92.2		116	12	68	1	40	1.09		0.68	0.0	6	1	30	0	w.	W. J. Crowell.
Roosevelt	Gila	2,175	6	90.8		113	20	66	3	41	1.21		0.79	0.0	3	16	15	0		W. A. Schoenfeld.
Sacaton	Pinal	1,280	3	89.8		115	20	62	1	48	0.65		0.65	0.0	1	24	6	1		E. W. Hudson.
Saint Johns	Apache	5,650	9	74.9		103	20	47	2	48	2.35		0.90	0.0	6	9	18	4	sw.	A. Shreeve.
Saint Michaels	do	6,950	23	72.4	+ 3.1	97	21	47	7	44	3.01	+ 1.03	1.00	0.0	9	4	0	27	sw.	Rev. A. Weber, O. F. M.
Salome	Yuma	1,875	3	82.7		112	20	50	2	51	0.79		0.74	0.0	2	12	13	6	s.	Mrs. M. B. Swartz.
San Carlos	Gila	2,456	29	85.8	− 0.5	112	7	53	2	56	1.54	− 0.05	0.65	0.0	5	6	22	3	w.	F. S. Thomas.
San Simon	Cochise	3,609	25	82.8	− 1.5	108	7	58	1	44	0.85	− 0.06	0.50	0.0	3	12	16	3	sw.	Southern Pacific Co.
Seligman	Yavapai	5,219																		C. W. Dougherty.
Sentinel	Maricopa	685	12	93.8	− 1.4	116	7	66	1	42	0.52	+ 0.08	0.25	0.0	4	13	17	1	sw.	Southern Pacific Co.
Showlow	Navajo	6,300	7																	Miss Zora Hall.

TABLE 1.—*Climatological data for July, 1910. District No. 9*—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.		
Arizona—Cont'd.																				
Silverbell	Pima	2,650	5	87.2	.....	107	7	64	23	35	3.11	.....	1.10	0.0	9	16	13	2	w.	Imperial Copper Co.
Snowflake	Navajo	5,644	1	73.7	.....	98	8	46	2	48	1.67	.....	0.50	0.0	7	8	16	7	sw.	W. J. Flake.
Supai	Coconino	3,200		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Coe.
Tempe	Maricopa	1,165	6	88.6	.....	113	20	60	1	44	0.67	.....	0.34	0.0	4	15	12	4	w.	F. H. Simmons.
Thatcher	Graham	2,800	7	81.8	.....	109	7	53	2	50	0.82	.....	0.40	0.0	5	14	14	3	se.	Prof. J. H. Larson.
Tombstone	Cochise	4,550	16	77.8	− 0.6	99	7	54	30	33	4.91	+ 1.67	2.60	0.0	9	7	21	3	.....	F. N. Walcott.
Truxton	Mohave	4,197	1	79.6	.....	104	21	50	1	45	1.02	.....	0.38	0.0	5	12	18	1	.....	S. M. Atkinson.
Tuba	Coconino	4,500	11	76.8	− 1.2	100	19†	53	1	42	0.89	+ 0.34	0.44	0.0	7	4	25	2	ne.	G. H. Kraus.
Tucson	Pima	2,390	31	85.8	− 1.2	110	7	61	2	47	4.21	+ 2.09	1.82	0.0	5	2	25	4	nw.	University of Arizona.
Vail	....do	3,421	12	86.0	+ 0.1	111	7	60	2	46	2.73	+ 1.90	1.22	0.0	5	8	21	2	.....	Southern Pacific Co.
Walnut Grove	Yavapai	3,649	20	.....	.....	.....	.....	.....	.....	.....	3.10	+ 1.40	1.67	0.0	7	12	16	3	.....	J. O. Carter.
Wickenburg	Maricopa	2,072	11	88.4	+ 2.7	112	7	64	1	43	1.06	+ 0.29	0.42	0.0	5	13	17	1	sw.	Santa Fe, Presc't & Phoenx
Willcox	Cochise	4,164	30	77.6	− 4.5	107	7	60	1†	52	2.45	+ 0.50	0.92	0.0	6	7	21	3	sw.	Southern Pacific Co.
Williams	Coconino	6,750	11	68.8	+ 0.4	94	8	36	4	50	3.01	+ 0.32	1.40	0.0	7	6	23	2	sw.	E. J. Nordyke.
Winslow	Navajo	4,853	7	79.6	.....	106	8†	49	1	51	0.60	.....	0.30	0.0	3	21	4	6	.....	J. F. Bauer.
Yarnell	Yavapai	4,700	12	.....	.....	.....	.....	.....	.....	.....	4.02	+ 1.42	1.56	0.0	9	6	24	1	s.	E. L. Bartholomew.
Yuma	Yuma	141	31	91.0	+ 0.1	116	20	64	1	43	0.84	+ 0.71	0.82	0.0	3	27	2	1	sw.	U. S. Weather Bureau.
Nevada.																				
Caliente	Lincoln	4,407		75.4	.....	104	9†	42	1	58	0.23	.....	0.06	0.0	6	17	14	0	ne.	Agent Salt Lake Route.
Las Vegas	Clark	2,033	2	85.2	.....	114	10	40	13	58	0.65	.....	0.20	0.0	5	.....	.....	.....	.....	Salt Lake Route.
Logan	....do	1,700	3	87.6	.....	114	21	55	4	50	0.11	.....	0.05	0.0	3	6	14	11	s.	Ray. M. Filcher.

[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. 9, Colorado 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	
Wyoming.																																	
Battle Mountain	Snake					.15										.23	.05					T.							.37				0.80
Daniel	..do				T.								T.	T.		T.		T.		.23	.10		T.				T.					T.	0.33
Eden	Green												T.			.01	T.	T.		.01	.01	T.						.45	.08	.26			0.82
Green River	...do				.02											.01		T.		T.	T.		T.					T.	T.	.23	.04		0.35
Pinedale	...do																																
Rambler	Snake			T.	.52			T.							T.	T.	.35	.20	T.	.37		T.	T.				T.	.10	T.	.27		.37	2.18
Willow Creek Cabin	Green																																
Colorado.																																	
Ashcroft	Grand			.03	.15	.06								.02			T.	.02		T.	.03	.22	.02					.10	.61	.21	.13	.28	1.88
Bed Rock	Dolores																																
Breckenridge	Grand		.06																									.09	1.25	.81	.49	.05	
Cascade	San Juan				.05						.02	.05		.20		.01	.05	.11	.23	.08	.15	.13	.04	.67	T.			.08	.05	.15	.58	.14	2.79
Chromo	...do				T.						T.		T.	T.	.13	T.		.10		T.	.12	T.				T.	T.	.05	.27	T.	1.03	.22	1.92
Cochetopa	Gunnison					.03							T.						.05	.11	.01			.03	T.				.24	.11	.20	.11	0.89
Collbran	Grand				.19	.06											.06												.09	.01	.30		0.71
Columbine	Yampa																																
Columbine Ranch	Gunnison			.02	.20												.08						.08							T.	1.18	.11	1.67
Corona	Grand	T.										T.	T.					.40	T.		T.	T.		T.							.70	T.	1.10
Crawford (near)	Gunnison			.10															T.									.04	.02	.04		.07	0.27
Crested Butte	...do			.06	.08	T.												.15			.05							.80	T.	.42	T.	T.	1.56
De Beque	Grand			.06	.08												.10																0.24
Delta	Gunnison				.03	.03													.05														0.18
Dillon	Grand	.02	T.		.09																.20	T.		.10	.50	.40	.20	.45	.30	.10	T.	T.	2.36
Dolores	Dolores																																
Durango	San Juan			T.	.01					T.		T.		T.	.05	T.	.02				T.	.02		.02	.07	.01	.05	.18		.22	.28	.02	0.95
Eagle	Grand				.27									T.							.27						T.	.21	.03	.6	.11	.02	1.58
Eureka	San Juan			.11	.17						.06	.08	.07			.08		.10		.08	.28	.07					.11	.16	.08	.13	.22	.31	2.11
Fraser	Grand					.15											.13	.13	.21	.20	.07	.02						.45	.32	.26	.10	.02	2.06
Fruita	...do			T.	.13							T.			T.	.67		T.				T.					T.	T.		.65		T.	1.45
Gladstone	San Juan			T.	.40	.20									.10			.70		.10									.30	.48	.45	.23	2.96
Glenwood Springs (nr)	Grand				.10																							.55	.40	.75	.36	.12	2.28
Grand Junction	...do				.03										T.	.05	.18		T.								T.	.61	.07	.02		T.	0.96
Grandlake	...do												T.	T.			.45	T.	T.	T.	.15			T.			T.	.15	.15	.17	.50		1.57
Grand Valley	...do				.14	.01			T.			T.		T.	.02	T.	T.	.17	.16	T.								T.	.17		T.	T.	0.67
Gunnison	Gunnison				.10									T.			T.		.02		T.	T.		.10				.05	.16	T.	.57	T.	1.00
Horsefly	...do																																
Ironton	...do			.10	.07	.06									.09	.03	.04	.13	.12	.94		.14	.02		.01	T.	.09	.35	.04	.30	.34	.15	3.02
Kremmling (near)	Grand				.33	.16					.11	T.		.02		T.	.14	T.	.08			.27	.04					.30	.15	.15	.09	T.	1.84
Lake City	Gunnison				.02	.02					T.	T.		.02	.04			.04	.23					T.	T.			.32	.04	.39	.05	.07	1.24
Lay	Yampa				.09	T.					T.	T.				.40	.15				T.						T.	T.	.12	.21		T.	0.97
Leal	Grand				.02									.02			.01	.01		.05	.03	T.	T.					.03	.06	.04		.01	0.28
Lujane	Gunnison			.21	.23											.30						T.						T.	.13			T.	0.87
Mancos	San Juan			.01		T.								.17			T.										.78	.59	.01	.05	.68	.10	2.39
Marble	Grand			*	.30	.15						T.						.30	.17									.10	T.	.41	.04		1.47
Marshall Pass	Gunnison																																
Meeker	White					.03			.04				.10	.10		.26												.15	.12	.10		.10	1.00
Montrose (near)	Gunnison				.01	.06																									.03		0.10
Nast	Grand				.15	.05														.22		.27							.74		.29		1.72
Pagoda	Yampa				.21											.40	.12		T.									.53	.28	.35			1.89
Pagosa Springs	San Juan				T.					.01		.05	.05	.30			.06	T.		.16	.10	T.	.02	T.	.33	.28		.16	.06		.46	.43	2.47
Paonia	Gunnison			T.	.18	T.											T.										T.	T.	.04	T.	T.	.09	0.31
Parshall	Grand			.44	.04													.06										*	*	*	.80		1.34
Pitkin	Gunnison			T.	.10													.05	.38	.10	.30	.05	T.						.06	.05	.30		1.39
Rangely	White																																
Redcliff	Grand				.30	.40								.05		T.										.50			.40	.80	T.	T.	2.45
Rico	Dolores				T.					.09				.16			.11		.22					.02	.11			.24	.20	.08	.62	.15	2.00
Rifle	Grand																																
River Portal	Gunnison			.38											.65													T.	.08				1.11
Sapinero (near)	...do			.04	.45	.13						T.						T.	.06				T.	T.				.11	.22	.03	.17	T.	1.21
Shoshone	Grand			*	.20												.01			.01	.07	.01					.01	.01	.01	T.	.24	.03	0.60
Silverton	San Juan			.20	.18						T.	.27	T.	.05	.04		.02	.20	T.	.27		.08	T.				.02	.11	.06	.25	.30	T.	2.05
Silverton (near)	...do		.15	T.	.20	.27						.30	T.		T.	T.		.61	T.	.11		.10	T.	T.	.11		.01	.12	.11	.15	.10	.02	2.36
Spruce Lodge	Grand				.15	.16											.23	.43	.13	.23	.53	.03	.08					.07	.40	.69	.11		3.24
Steamboat Springs	Yampa				.23	.06															.29							.25	.15	.25			1.23
Tacoma	San Juan					T.						T.			T.			.70	.70			.50	.40	.40							.58		3.28
Terminal Dam	...do				.04				.02	.04	.09	.12	.04	.06		.10	.05	.04			T.	.40	.34	.10	.05	.07	.01	.03		.05	.40	.10	2.15
Terrill's Ranch	Grand				.08										.05	.24												.27	.02			.03	0.69
Uncompahgre Plateau	Gunnison			.20	.18	T.									.10	T.		.07	.17								.15		.12	.24	.28		1.51
Whitepine	...do																																
Yampa (near)	Yampa				.41								T.	.04						.04			.11				*	.48	.31	.20		.03	1.62
Utah.																																	
Baker	Colorado			.05	.08							.02			.06					.01		.04						.03	.20	.08	1.30	.04	1.91
Basin	Grand			.07	.15	.02									.14	.74	.08									.02	.03		.10	.41		.43	2.19
Castle Dale	Green			.30								T.		.10	.05				.15								.05	T.	T.		T.	T.	0.65
Elkhorn	...do																																
Emery	Colorado			T.	T.												T.	T.	T.	T.	T.									.20			0.20
Escalante	...do				.08										.15								.02				.60	.93	1.25		.05	.13	3.21
Fort Duchesne	Green				.30	T.										.05						.06						T.		.08		.18	0.67
Fruitland	...do			.04	T.							T.	T.	T.	T.	.21	T.	.10	.04	.02	.11						.18	.47	T.	T.	T.	.52	1.69
Grayson	San Juan																																
Green River	Green			T.	.08											.13												T.		T.	.46	T.	0.67
Hanksville	Colorado			.03	.01																.01												0.05
Hite	...do			T.	T.							T.			T.		T.		T.				T.				T.		T.				T.
La Sal	Grand			.08	.13										.10	.06	.51											.10	.09		.30	.13	1.50
Loa	Colorado																																
Manila	Green				.09											.12						.05	.19				.07			.06	.35		0.93
Moab	Grand			T.	.03										.10	.11	T.										.01			T.			0.25
Monticello	...do																																
Orderville	Colorado			.01	.06									.14	.22		.02							.16			T.	.03	.40	.11	.24		1.39
Price	Green																																
Ranch	Colorado			.33						T.				T.	.62		.08										.20	.30	.40	.78	.17		2.88
St. George	...do														.70		.60											.23	.02	.17			1.72
Scofield	Green																																
Springdale	Colorado																									.18							0.18
Sunnyside	Green			.06								T.			*	.30												.20		.50	.40		1.46
Teasdale	Colorado			.01	T.												.10				T.						.07	.19	.11		.48	.08	1.04
Theodore	Green			T.	T.							.25	.03	.01	.01	.15		.08		T.	T.	.14					T.	.18	T.	.20		T.	1.05
Tropic	Colorado			T.							T.	T.	T.	T.	.14	.06	T.	.04	.14	T.	T.			T.				.14				.52	1.04
Trout Creek Ranger	Green				.85					.05	.10		.10			.40		.10			.05	.60					.10	.15	.45	.10			3.05
Vernal	...do				.42																	.05							.25	.40			1.12
New Mexico.																																	
Alma	Gila										T.		*	.22	1.00		T.							.04				.08	.30	T.	.01		1.65
Aragon	...do												.22	.10	.12	T.							.10	.05				.35		.05	.15		1.14
Blackrock	Little Colorado													T.	.28	.31					T.	.49	.56	.50	.10	.03		T.		T.	.31		2.58

TABLE 2.—*Daily precipitation for July, 1910. District No. 9*—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	
New Mexico—Cont'd.																																	
Bloomfield	San Juan				T.	.01	T.					T.	T.	T.	.02	T.	.05		T.	T.	T.	T.	T.	T.	.14	T.	T.	1.00	T.	T.	.34		1.56
Cambray	Mimbres												.64		.10	.05																	0.79
Columbus	Gila										T.		.11	.01	.07								.18	.03			.11					.03	0.54
Deming	Mimbres											T.		.08	.08	.10											*	.70					0.96
Dulce	San Juan				.01	T.				T.	.04	.06	.20	.16	.03		T.		.20		.02	.03				.02	.03		.09	.06	.79	.29	2.03
Fort Bayard	Mimbres							T.	T.		.10	.10	.20	.25	T.		.35					T.	.20		.15		T.		T.	T.		T.	1.45
Fort Wingate	Little Colorado					T.						T.		.10	.10	.20		T.		T.	T.	T.		.10	.20		.60	.10		.30	.20	.50	2.40
Fruitland	San Juan					T.										T.								T.				.80		.10			0.90
Gaze	Mimbres												.22	.26															.20				0.68
Gila	Gila						.05					.30	1.15		.55		.42										T.		T.				2.47
Gila Planting Station	Mimbres																																
Hachita	Gila													.45	.05		T.									.38		T.			.09	T.	0.97
Haynes	San Juan																																
Hermanas	Gila													.01	.01								.02			.01		.02					0.07
Lordsburg	do													.50	.28	.29							.22					.24			.56		2.09
Luna	do				T.						T.	T.	T.		.20							.04	.35	.50	.10	.07		.35		.09			1.70
Mimbres	Mimbres										.07		.06	.67	.28	.61	.25									.09			.34				2.37
Pratt	Gila												.77	.25	1.30								.70		.32		.45						3.79
Putnam	San Juan						.16																			.07					.84		1.07
Redrock	Gila											.04	.20	.34		.98	.40											.61	.93	.84			4.34
Rodeo	do					T.					T.	.05		.43	.48	.64		.10				T.		.59	.04	.90		.02			.01		3.26
Rosa	San Juan																																
Arizona.																																	
Allaires Ranch	Sonora													.03	.01								1.57				.08				.01		1.70
Arizona Canal Dam	Salt														.82		.30			.01				.47									1.60
Aztec	Gila													.03	.05		.03							.20									0.31
Benson	San Pedro				.10						T.		.20	.48	.20		.12						.60		T.		T.		T.		T.		1.70
Bisbee	do				T.	T.		T.			T.	T.		.28	.57		.12	T.	T.			4.25	.25	T.	.11			.09		.05	T.		5.72
Bonita	Mimbres																																
Bowie	Gila													.25	.65		.15	.10					.10							.03	.02		1.30
Buckeye	do		T.											T.	T.		.05						.71						.03		T.		0.79
Camp Verde	Verde																																
Canille	San Pedro		T.		.05					.12	.50			.56	.81							T.	1.15	.78				.61	.07		.13	T.	4.78
Casa Grande	Gila												.02	.07	T.	.02		.16				T.	.50	.26				.22					1.25
Cave Creek	Verde														.69					.21			.20	.30				.72			.10		2.22
Chin Lee	San Juan			T.		T.					T.		T.		.07	.53	.17	.01							T.	.09	.05	T.		.09	.90	.05	1.96
Chiarsons Mill	Gila																																
Clifton	do				T.								.45	.31	.88	.08							.07	T.				.01			.42		2.22
Cline	Salt														.73								.32										1.05
Cochise	Desert										.05		1.01	.10									1.45			T.							2.61
Columbia	Agua Fria																						1.05								T.		1.05
Congress	Hassayampa			T.										.02	.87	.08	.24	.58					.69	T.	2.15		.25		.02		.32		5.22
Courtland	White				.02					.16			.25	.35	.30								.30	.12		.20		.47					2.17
Dos Cabezos	Desert													.44	.35								2.15		.15	.67	.12	.18					4.06
Douglas	Sonora				.06	T.		T.		.17		.04		.08	.11	T.	.06	T.				.06	.97		T.	.16		.14	.07			.60	2.52
Dudleyville	Gila																																
Fairbank	San Pedro				.08										.42	.80							2.60	.04				.55	.05	.03	.25		4.82
Flagstaff	Little Colorado			T.						.06	T.			T.	.06	.30	.01	.26			T.	T.	.04	.38	.30		.48		.60	.04	.06	.48	3.07
Florence	Gila												T.	.25			.50						1.40										2.15
Fort Apache	Salt												T.	.60	.25									.20	T.	.40	.10	.26	.18	.08	T.		2.07
Fort Huachuca	San Pedro				T.	T.	T.				.35	T.		.25	.50	T.								.70	T.	T.			.40	T.	T.	1.20	3.40
Fort Mohave	Colorado														.06				.12														0.18
Gilabend	Gila																.10	.13		.10			.10										0.43
Globe	Salt													.06	.50	.01	.02							.21		1.22		.16					2.18
Grand Canyon	Colorado																																
Greer	Little Colorado					T.					.10	.08	.12	.20	.50	.05	T.	.10	T.	T.	.12	T.	.04	.03	T.		.10	.30	.40	T.	.50	.30	2.94
Hereford	Gila										.03			.44	.21		.41						1.19	.08	.20	.06			1.15	.05			3.82
Holbrook	Little Colorado													.35	.28	.22	.28	.15	T.	T.		.02	.06	.42	T.	T.		.48	.37				2.63
Intake	Salt														.60									.30			.20		.35				1.45
Jerome	Verde														.15			.31									.41	.07		.42	.26		1.62
Keams Canyon	Little Colorado									.01				.03		.16	.03	T.	T.	.10				.20	.06	.78	.56	.58	.35		.05	.93	3.84
Kingman	Colorado			.18										T.	.32			.25		T.					T.				.10	T.			0.85
Lewis Springs	San Pedro										T.			.11	.85	T.		T.				T.		1.20		.04	.10		.06		.02		2.47
Maricopa	Gila																																
Mesa	Salt														T.		.63	T.		T.		T.	.25						T.		T.		0.88
Mohawk Summit	Gila																										T.						T.
Naco	San Pedro													.02			.77	.48					.38	.45	.08		.14			.32			2.64
Natural Bridge	Verde												T.		.82									.15		.20			.68		.10		1.95
Nogales	Santa Cruz																																
Oracle	San Pedro																																
Osborn	do					T.			.02	T.	T.	T.	T.	.20	.43	.28	.08						2.30		.04		.02		.06				3.43
Paradise	Desert										T.		.06		.02	.01							2.00		.02	.07					.09		2.27
Parker	Colorado														.22				.03														0.52
Payson	Verde														.29		T.	T.		T.		T.	.35		.14		.25		T.	T.		T.	1.03
Phoenix	Salt													T.	.02	T.	.30					T.		.20					.03		.01		0.65
Pinal Ranch	do													.31	.33			.08						1.10			.08					.08	1.98
Pinto	Little Colorado																																
Prescott	Hassayampa									.05				T.	.20	.02	.33	.05	T.	T.			.52	.14	T.		.17		.15	.15	.11	T.	1.89
Quartzsite	Colorado													.05	.02		.08	.56									.10						0.81
Redrock	Santa Cruz												.04	.07	T.	.02		.18		T.		T.	.68					.10					1.09
Roosevelt	Salt												T.	T.	.20	T.	T.			T.			.13	.79	T.	T.		T.	T.		T.		1.21
Sacaton	Gila																							.65									0.65
St. Johns	Little Colorado											.07			.15				.90				.12			.21	.90						2.35
St. Michaels	do			T.	T.	.15					T.	T.	T.		.30	.36	T.	T.	T.	T.	T.	T.	.10	T.	1.00	.44	.46	T.	T.	.10	.10	T.	3.01
Salome	Colorado				T.									T.	.74							.05			T.						T.		0.79
San Carlos	Gila														.65	.25							.27	.07				.30					1.54
San Simon	do												.10													.50		.25					0.85
Seligman	Verde																																
Sentinel	Gila																.25	.10						.05					.12				0.52
Showlow	Little Colorado																																
Silverbell	Santa Cruz													.08	.20	.10	.15		.20					.60		.25		.43	1.10				3.11
Snowflake	Little Colorado														.10			.20		T.			.32	.25	.16	.14	.50	T.	T.		T.		1.67
Supai	Colorado																																
Tempe	Salt																.34	.01						.22							.10		0.67
Thatcher	Gila										T.	T.	T.	.02	.30													.05	.05	.40			0.82
Tombstone	San Pedro													.28	1.13		.04					.06	2.60		.07			.06			.45	.22	4.91
Truxton	Colorado													.24	.38				.02						.01				.37				1.02
Tuba	Little Colorado			T.	.06							T.		.05	.10	.44	T.		T.	.02		T.	T.	T.	T.	T.	.10	T.		.12			0.89
Tucson	Santa Cruz												T.	.34	T.		.54	.16	T.			1.35	1.82	T.									4.21
Vail	do												.16				.38					1.22	.95					.02					2.73
Walnut Grove	Hassayampa														.60				T.	T.		.27			.16			.25	.15	1.00	.67		3.10
Wickenburg	do														.06		.42					T.		.34					.10		.14		1.06
Willcox	Desert											.46	.08		.80							.04	.88				.19						2.45
Williams	Colorado				.08										.16	.92	.10				T.			.31	1.40			.04					3.01

TABLE 2.—*Daily precipitation for July, 1910. District No. 9*—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	
Arizona—Cont'd.																																	
Winslow	Little Colorado													.20				.30						T.	.10								0.60
Yarnell	Hassayampa		T.	T.	T.	T.									T.	T.	.62	1.56	.40	.51				.17		.50		.20	.04		.02		4.02
Yuma	Colorado			T.	T.									.08	.74		.02										T.						0.84
Nevada.																																	
Caliente	Colorado													.04					.06						.04		.02			.05	.02		0.23
Las Vegas	do														.20		.05	T.		.15						.15			.10				0.65
Logan	do														.05				T.										.03		.03	T.	0.11

TABLE 3.—*Maximum and minimum temperatures at selected stations, July, 1910. District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.										Utah.										New Mexico.			
	Daniel.		Green River.		Durango.		Grand Junction.		Gunnison.		Meeker.		Steamboat Springs.		Emery.		Fort Duchesne.		Hite.		Moab.		St. George (Experiment station).		Fort Bayard.		Fort Wingate.	
	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	80	33	89	42	83	45	88	59	80	35	81	39	81	34	82	42	92	46	95	61	93	51	109	57	90	53	84	54
2	81	32	90	49	87	44	94	62	82	33	85	49	85	33	83	41	95	46	101	62	98	52	99	61	94	51	87	48
3	80	32	90	53	85	46	90	67	84	30	85	40	84	30	78	55	93	45	92	68	92	51	98	64	93	55	88	50
4	72	47	75	54	82	51	80	61	86	34	75	42	75	34	69	51	85	45	87	66	90	60	94	64	94	51	82	63
5	70	33	79	44	81	48	88	59	88	37	75	42	75	34	78	56	90	50	96	61	93	51	99	50	93	50	80	51
6	74	32	86	38	86	46	90	61	86	39	79	35	80	31	79	59	92	40	99	66	97	61	102	50	94	60	87	51
7	76	31	89	41	88	48	92	59	84	40	83	40	83	31	86	45	96	45	104	67	98	53	106	50	92	63	88	54
8	76	33	90	38	90	48	95	62	81	35	84	40	85	31	89	59	97	46	105	66	101	52	107	53	90	61	88	53
9	73	41	82	50	86	49	94	63	84	40	82	38	80	33	85	51	94	46	104	73	99	60	108	59	92	61	86	63
10	76	35	88	50	87	48	94	65	82	36	84	38	82	36	82	52	96	47	102	72	100	63	106	64	88	59	86	59
11	80	35	88	55	87	48	90	62	79	42	80	40	83	34	89	46	99	50	106	75	97	63	106	67	80	48	86	52
12	76	36	89	53	89	48	92	61	82	41	84	46	85	35	82	51	91	46	102	71	98	58	108	62	86	52	87	54
13	81	41	93	50	85	52	96	64	80	42	83	40	84	40	85	56	97	48	103	78	101	64	102	77	85	53	76	54
14	85	37	95	51	85	51	91	66	86	39	82	46	90	39	89	51	98	47	97	77	96	61	86	69	85	5	78	59
15	78	55	88	60	88	53	92	68	84	38	86	50	86	44	82	56	96	62	99	77	95	63	93	66	85	55	81	52
16	85	47	93	50	89	55	95	64	87	40	85	51	87	53	83	49	96	57	96	71	100	64	101	68	83	57	88	55
17	80	45	94	61	90	53	96	67	85	42	87	56	86	46	82	49	97	59	105	71	103	61	104	67	89	61	88	48
18	83	46	96	54	88	56	99	72	87	40	89	49	88	42	85	56	102	54	102	74	94	64	104	68	90	55	87	58
19	81	50	88	61	94	52	99	68	90	45	88	53	90	44	89	59	101	61	107	74	103	61	106	72	90	60	88	54
20	82	46	95	55	93	60	100	71	87	46	89	49	91	46	90	58	100	62	110	81	105	64	106	64	89	56	92	62
21	84	40	90	54	91	56	98	70	82	48	87	50	87	45	86	50	97	54	108	78	103	62	107	64	91	62	92	60
22	80	38	93	68	92	56	101	70	87	40	88	47	88	39	89	55	100	55	108	83	102	65	102	7[illegible]	89	56	90	58
23	72	35	86	61	88	55	97	72	88	49	85	47	85	31	88	52	96	53	106	84	101	68	102	68	90	60	86	60
24	80	31	93	52	85	54	97	62	90	47	87	40	90	29	89	56	97	46	108	71	103	54	103	72	91	62	82	57
25	84	36	98	57	89	56	100	59	89	44	89	42	92	31	82	50	101	47	105	81	102	59	99	73	90	52	80	55
26	80	40	93	60	91	54	96	65	88	49	90	49	92	38	85	51	99	56	103	82	103	68	101	73	91	55	79	50
27	80	45	90	66	87	58	94	68	85	50	83	40	87	50	81	56	91	61	109	80	103	69	92	77	88	57	78	55
28	82	53	84	64	83	55	86	67	85	48	80	53	76	51	85	52	90	58	98	77	93	69	110	67	84	50	80	53
29	80	46	84	57	84	52	88	65	74	45	81	48	79	53	90	56	85	56	101	74	97	61	101	70	88	52	79	54
30	80	41	89	53	78	58	88	66	78	52	81	40	80	40	86	51	90	55	98	79	93	64	101	66	93	54	73	54
31	83	40	89	57	78	54	84	62	80	50	79	42	84	42	89	52	93	54	98	73	91	63	97	66	92	53	80	51
Mns	79.2	39.7	89.2	53.5	86.7	51.9	93.0	64.7	84.2	41.8	83.5	44.3	84.5	38.7	83.5	52.1	95.1	51.5	101.3	73.3	98.2	60.4	101.1	65.2	89.3	55.8	84.1	54.9

Date.	Arizona.																									
	Bisbee.		Flagstaff.		Fort Apache.		Grand Canyon.		Parker.		Phoenix.		Prescott.		St. Michaels.		San Carlos.		Tucson.		Yuma.		Logan, Nev.	
	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	89	63	82	36	94	46	.....	.....	112	62	104	68	88	46	82	49	106	56	104	64	105	64	104	60
2	94	66	83	40	95	47	.....	.....	111	62	107	69	89	46	89	53	109	53	108	61	110	67	105	61
3	94	67	80	48	95	51	.....	.....	115	67	105	77	87	54	90	63	107	64	107	69	107	73	103	85
4	92	69	76	45	93	55	.....	.....	110	62	104	75	87	56	88	64	107	67	105	72	106	69	100	55
5	91	67	81	48	94	57	.....	.....	112	60	106	75	87	59	85	53	108	65	109	71	111	79	103	56
6	94	69	85	42	97	56	.....	.....	117	65	111	74	93	55	89	49	110	64	108	70	114	72	107	57
7	95	69	89	43	98	56	.....	.....	109	66	111	77	95	54	91	47	112	65	110	72	115	76	110	60
8	93	69	87	47	95	55	.....	.....	109	66	108	77	94	58	94	50	109	63	108	74	108	83	109	60
9	95	69	82	49	94	56	.....	.....	114	67	107	77	91	61	90	61	106	74	106	76	110	73	110	63
10	86	66	81	45	92	58	.....	.....	116	67	105	73	91	57	86	57	107	63	104	75	110	72	110	68
11	89	62	86	46	94	57	.....	.....	118	67	108	76	93	58	90	51	108	71	106	72	112	70	112	68
12	89	66	87	45	95	58	.....	.....	114	66	109	73	95	61	92	61	106	70	107	70	112	70	110	65
13	86	63	77	58	87	59	.....	.....	110	67	95	81	85	64	87	56	98	75	97	69	100	74	107	71
14	78	62	64	56	93	60	.....	.....	96	67	91	72	72	61	80	57	92	67	98	69	92	75	90	70
15	81	62	75	48	84	60	.....	.....	102	68	99	77	81	60	86	56	84	69	96	70	100	77	100	68
16	82	62	81	52	91	57	.....	.....	104	67	105	69	88	56	90	58	105	73	107	68	106	77	104	72
17	86	62	83	50	91	60	.....	.....	104	67	102	72	90	56	91	59	105	69	104	70	105	76	109	73
18	87	62	84	50	93	58	.....	.....	111	67	109	74	91	56	90	57	106	72	105	62	106	79	108	74
19	89	66	86	53	91	64	.....	.....	116	66	107	82	94	64	95	57	108	71	106	74	111	80	110	69
20	90	65	91	53	95	57	.....	.....	117	66	111	79	97	57	96	55	108	70	106	71	116	81	112	72
21	90	67	89	55	93	67	.....	.....	113	67	103	84	95	57	97	60	110	71	103	68	102	83	114	70
22	90	62	83	61	86	63	.....	.....	107	67	100	78	82	60	95	55	106	72	95	66	104	84	106	77
23	77	61	80	56	85	60	.....	.....	101	67	91	73	82	62	88	61	104	70	88	66	94	82	105	73
24	79	61	75	57	87	59	.....	.....	107	67	96	79	78	63	90	59	103	69	90	72	103	79	101	80
25	82	61	78	54	90	56	.....	.....	104	68	100	78	84	57	84	58	102	72	96	73	105	75	105	76
26	84	64	80	55	88	59	.....	.....	106	66	100	80	83	61	83	61	100	68	98	71	95	77	106	80
27	79	65	76	50	85	57	.....	.....	106	68	101	79	83	57	83	58	98	68	96	71	104	74	103	76
28	79	59	74	52	85	58	.....	.....	107	66	99	74	81	59	80	58	97	69	94	71	104	80	105	71
29	81	64	77	54	85	55	.....	.....	106	68	102	74	85	61	87	58	101	66	96	71	106	76	104	78
30	82	65	75	50	84	61	.....	.....	111	70	103	78	83	57	82	59	97	67	97	74	109	78	107	72
31	85	65	78	50	90	56	.....	.....	110	72	104	75	86	54	83	58	106	67	100	69	111	78	103	74
Means	86.7	64.5	80.8	49.9	90.9	57.4	.....	.....	109.5	66.4	103.3	75.8	87.4	57.6	88.2	56.7	104.0	67.7	101.7	70.0	106.2	75.9	105.9	69.4