CLIMATOLOGICAL DATA FOR APRIL, 1911.

DISTRICT No. 8. TEXAS AND THE RIO GRANDE VALLEY.

BERNARD BUNNEMEYER, District Editor.

GENERAL SUMMARY.

Weather conditions during April were generally favorable, although there were heavy rains in the eastern portion of the district which interfered with farm work. The temperature was moderate and the extremes of temperature were well within the record. Frosts occurred only in the northern portions of the district and caused but little or no damage. The amount of sunshine averaged below the normal, especially in eastern Texas, where the number of cloudy days was unusually large. The precipitation was decidedly in excess of the normal, although deficiencies occurred over scattered areas in the Rio Grande watershed and over limited areas in the upper portions of the Rio Pecos, Colorado, Brazos and Trinity, and in the middle portion of the San Antonio drainage basins. The excess was conspicuous in central, eastern, and southern Texas. The heaviest amounts occurred over the Sabine and Neches Valleys, where they averaged over 8 inches, and the least over the upper Rio Grande Valley, where the average was less than 1 inch. Considerable rises occurred in the streams of the district, but there were no overflows, except of some of the minor tributaries. The precipitation was generally well distributed. Rains occurred daily in some portions of Texas, while in New Mexico and Colorado they occurred principally before the 10th or after the 22d. The number of days with 0.01 inch or more of precipitation averaged 5 in Colorado and 4 in New Mexico, while in Texas it was 9, which is nearly double the usual number.

The greatest and least monthly amounts of precipitation in Colorado were 2.86 inches at Platoro and 0.25 inch at Saguache; in New Mexico, 2.67 inches at Hondo Reservoir and 0.17 inch at Rincon; and in Texas, 12.82 inches at San Augustine and 0.47 inch at El Paso. Excessive amounts of 2.50 inches or more in 24 consecutive hours occurred at a large number of Texas stations. The damage from these heavy downpours and from wind and hail storms that occurred in scattered localities was comparatively small.

Snow occurred on several days at the higher northern stations in the upper reaches of the Rio Grande and Rio Pecos. The heaviest monthly snowfall was 22 inches at Platoro, Colo., and at Harveys Upper Ranch, N. Mex. There is considerable snow left in the mountains, and the prospects for a good supply of water are promising.

TEMPERATURE.

The mean temperature was practically normal throughout the district. A moderate excess occurred in the extreme upper Rio Grande watershed, in the greater portion of the Rio Pecos watershed, and over a broad area bordering on the Gulf from the lower Rio Grande to the lower Sabine. The other portions of the district showed a corresponding deficiency. The changes of temperature from day to day were comparatively small, and while several cool spells occurred, they were milder and of shorter duration than is common at this season. The average diurnal range of temperature varied from about 10° on the Gulf coast to nearly 36° in the extreme northern portions of the district.

Light to killing frosts were general in New Mexico on the 8th and between the 13th and 16th, and in northern counties also on the 24th and 25th. There were no killing frosts in Texas, but light frost occurred in some northern localities on the 9th.

The highest and lowest temperatures reported were: In Colorado, 75° at Saguache on the 22d and 10° at the same station on the 15th; in New Mexico, 92° at Carlsbad on the 23d and 16° at Chama on the 13th and at Red River Canyon on the 22d; and in Texas 105° at Fort McIntosh on the 6th and 32° at Albany on the 2d and at Plainview on the 15th. The local monthly means ranged from 35.4° to 45.4° in Colorado; from 39.3° to 65° in New Mexico; and from 57.2° to 77.4° in Texas.

PRECIPITATION.

The precipitation over the Rio Grande watershed was slightly less than reported for March. The average for the entire drainage area was 1.02 inches, which is but little more than normal. A moderate deficiency occurred over the upper and lower reaches and a corresponding excess over the middle portions. The greatest monthly precipitation was 3.73 inches at Fort Clark, Tex., and the least, 0.17 inch at Rincon, N. Mex.

The Rio Pecos watershed received much more moisture than normal. Good rains occurred over the entire drainage area, although the monthly amounts were slightly below the normal in a few northern localities. The average for the watershed was 1.89 inches, which is over three times the amount reported for March. The heaviest monthly amount was 4.13 inches at Theodore, Tex., and the least 0.63 inch at Coyote, N. Mex.

The precipitation over the Texas watersheds was decidedly greater than normal and exceeded the March precipitation by about 100 per cent. The increase was especially conspicuous over the eastern watersheds and was less marked over the western. A few localities in the Colorado, Brazos, Trinity, and San Antonio watersheds received less than the normal amounts, but the deficiency is insignificant when compared with the excess elsewhere. The following are the average monthly amounts in inches for the various watersheds: Nueces, 3.47; San Antonio, 4.12; Guadalupe, 5.25; Lavaca, 7.28; Colorado, 5.13; Brazos, 4.80; Trinity, 5.51; Neches, 9.45; Sabine, 8.80; and coastal plains, 5.24.

RIVER CONDITIONS.

The streams of the district generally had a good flow during the month, especially in the lumber district of eastern Texas, where the conditions were favorable for

logging operations. The Trinity, Neches, and Sabine averaged from 6 to 8 feet higher than during March, and in some places these streams were nearly bank full. The Brazos, Colorado, and Guadalupe averaged nearly 2 feet higher. The flow of the Rio Pecos was also better than during the preceding month, but that of the Rio Grande was less. There was, however, ample water for irrigation purposes.

MISCELLANEOUS.

Harveys Upper Ranch, N. Mex.—A great amount of snow remains in the gulches and on the north sides of the mountains, and it seems that there will be an abundance of water.

Jemez Springs, N. Mex.—The frost of the 13th does not seem to have damaged even the apricots, which seldom escape. There are prospects of a heavy fruit crop, if there be no bad frosts in May.

Placitas, N. Mex.—There is no snow at the ranch, but higher up in the mountains it is from 1 to 2 feet deep. It is, however, soft and melting.

Rosedale, N. Mex.—There has been an abundance of water so far. The snow is 3 feet deep on the north sides of the mountains and in sheltered places. Grass and forage are better now than they have been for many years at this time.

Tajique, N. Mex.—There is more water in the mountains than there has been for the past three years.

Tijeras Canyon, N. Mex.—The nights continue cold and ice frequently forms, but there is little damage to fruit and vegetation. There is plenty of snow in the Sandia Mountains.

Big Springs, Tex.—Farmers claim that the prospects are better at this time than they have ever been in this county.

Duval, Tex.—The precipitation for April was the heaviest in that month since 1884, except in April, 1900, when it was 9.34 inches.

Eastland, Tex.—Crops in general are in good condition. Small grain is affected with rust to a slight extent. Most of the cotton is up or coming up.

Georgetown, Tex.—The rainfall during the month was unusually large, and the ground is wetter than it has been for years.

Grapevine, Tex.—There was a severe storm from the northwest on the 18th. The wind blew at an estimated velocity of 55 miles per hour, and the hailstones were as large as goose eggs and destroyed the corn in the path of the storm.

Jewett, Tex.—The month has been very wet and the rainfall was just slow enough to keep the farmers from work.

Lagrange, Tex.—Farmers are complaining of too much rain and that the grass is taking their crops.

Lubbock, Tex.—The weather has been favorable during the month, notwithstanding a hailstorm during the night of the 23d–24th, which did considerable damage to fruit and small plants.

Post City, Tex.—A severe wind and hailstorm from the southeast occurred during the night of the 23d.

Sealy, Tex.—The rainfall for the month of April was exceedingly heavy as compared with that of the last 12 months. Farmers are complaining that the ground is too wet for field work and that the grass is getting over their cotton and corn. Some damage was caused by a hailstorm on the 30th.

PROTECTION AGAINST FROST.

By E. W. GRUSS, Houston Heights, Tex.

The freeze of January, 1911, has given the fruit and truck industry of south Texas a setback, from which to recover will probably require several years. Tens of thousands of Satsuma orange trees, ranging in age from those just transplanted to those already in bearing, were either killed absolutely or, in the case of the older, the bearing time was delayed for a year. This freeze has shown, furthermore, that our people are, in many instances, ready to invest in anything which has been represented to them as yielding extraordinary returns for a comparatively small expenditure of capital and labor. Against all sound judgment, many newcomers have invested their hard-earned savings in land of which they knew naught, and planted the land to crops to the successful production of which they had no actual knowledge. That the citrus and truck industries will ultimately triumph in this section of Texas there is no doubt, but the methods employed at the present to accomplish this result, especially that of protection from frost, must undergo radical and far-reaching changes.

Smudging beneficial.—Those orchards in which smoke protection was given during the freeze referred to above proved the efficacy of the smudge pot. This method of protection, however, was only in the experimental stage, and is therefore subject to great improvement. The chief defects to be overcome are the thinness of the smoke produced by the fuel now in use and the lack of windbreaks.

Dense smudge.—Instead of the light smoke resulting from the burning of crude petroleum, a dense, heavy, moist smoke should be caused to roll through the orchard. Such a smoke could be produced by a dry fuel fire passing through some wet or moist material, as, for instance, wet hay or straw, or moist manure or sawdust. The evaporation of the water in the smudging material will increase the humidity of the air in the orchard. Receding from the point of origin, the vapor will be condensed and the latent heat set free. The condensed vapor, acting as a damper upon the fires, will cause them to burn slowly, thus producing a very heavy, fog-like, all-enveloping smudge. If the wind checks are properly distributed throughout the grounds the smudge will move slowly, and there will be sufficient obstruction to the average "norther," the source of greatest trouble in south Texas, to prevent a large percentage of the vapor and heat contents of the smudge from passing beyond the confines of the area to be protected.

Windbreaks.—Experience has shown that windbreaks must be planted to assist in warding off frost. Satsuma trees grow low, and in order to break the force of the wind more effectually, the windbreaks should be composed of evergreens with well-developed tops, and growing to about twice the height of the Satsuma. These windbreaks should be planted throughout the orchard and be as numerous as may be consistent with the development of the Satsumas.

Protecting truck crops.—Truck, though commercially of lower value than citrus fruit, is of vastly higher importance from a utilitarian point of view. Hence, protection of every nature extended to the trucker and his crops is a protection to the nation's food supply.

Trucking in the South is profitable only, as a rule, if the produce can be marketed from December 1 to May 1 of the following spring. Before Thanksgiving the north-

TABLE 1.—*Climatological data for April, 1911. District No. 8, Texas and Rio Grande Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 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.		
Colorado.																				
Blanca	Costilla	7,865	2	42.4	.....	69	22	16	11†	43	0.60	.....	0.36	T.	3	12	18	0	sw.	Dr. L. C. Audrain.
Cumbres	Conejos	10,015	4	.....	.....	.....	.....	.....	.....	.....	0.99	.....	0.29	7.0	6	10	18	2	sw.	Mrs. I. M. Lively.
Garnett	Costilla	7,576	18	43.4	+ 1.8	70	22	12	14†	48	0.46	+ 0.08	0.39	0	2	9	19	2	w.	Chas. Speiser.
Hermit	Hinsdale	9,843	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marion Mason.
La Veta Pass	Costilla	9,000	1	.....	.....	.....	.....	.....	.....	.....	1.54	.....	0.35	14.2	6	5	18	7	w.	Marine D. Wright.
Manassa	Conejos	7,700	5	43.1	.....	68	19	12	15	46[b]	0.59	.....	0.28	1.0	4	.....	.....	.....	sw.	J. B. Chapman.
Platoro	do	9,675	4	.....	.....	.....	.....	.....	.....	.....	2.86	.....	1.01	22.0	8	17	5	8	sw.	Walter R. Hook.
Saguache	Saguache	7,740	19	45.4	+ 1.9	75	22	10	15	58	0.25	− 0.27	0.20	T.	2	8	7	15	nw.	Eugene Williams.
San Luis	Costilla	7,794	20	43.1	+ 0.6	69	23	14	15	45	1.18	+ 0.33	0.47	T.	7	11	18	1	sw.	P. B. Albright.
Wagon Wheel Gap Experiment Station.	Mineral	9,235	....	35.4	− 0.4	56	26	12	15	33	0.75	− 0.24	0.18	6.3	10	11	13	6	nw.	U. S. Weather Bureau.
New Mexico.																				
Agricultural College	Dona Ana	3,863	49	58.4	− 2.8	85	22	34	17	48	0.32	+ 0.15	0.18	0	3	11	17	2	w.	N. M. Agricultural College.
Alamogordo (near)	Otero	4,338	10	58.8	.....	87	22	30	10	53	0.84	+ 0.31	0.51	0	5	11	17	2	w.	Charles D. Sutton.
Alamogordo	do	4,320	2	.....	.....	.....	.....	.....	.....	.....	0.67	.....	0.47	0	2	.....	.....	.....	.....	Agent E. P. & S. W. R. R.
Alamos Ranch	Sandoval	7,800	....	.....	.....	.....	.....	.....	.....	.....	0.42	.....	0.18	0	4	23	3	4	sw.	H. H. Brooks.
Albuquerque	Bernalillo	5,000	35	.....	.....	.....	.....	.....	.....	.....	0.28	− 0.23	0.13	0	7	15	13	2	w.	Pitt Ross, C. E.
Ancho	Lincoln	6,112	2	.....	.....	.....	.....	.....	.....	.....	1.15	.....	0.90	0	3	.....	.....	.....	.....	Agent E. P. & S. W. R. R.
Artesia	Eddy	3,350	4	62.6	.....	90	20†	34	19	52	2.30	.....	2.22	0	3	16	7	7	sw.	Will Benson, C. E.
Aspen Grove Ranch	Rio Arriba	9,000	2	.....	.....	.....	.....	.....	.....	.....	1.23	.....	0.26	4.4	10	6	23	1	.....	Junius D. Maupin.
Batemans Ranch	do	8,900	2	.....	.....	.....	.....	.....	.....	.....	0.20	.....	0.20	2.0	1	15	11	4	w.	John W. Bateman.
Bluewater	Valencia	6,732	9	47.3	.....	76	26	20	16	50	0.97	.....	0.40	0	9	11	16	3	s.	Bluewater Development Co.
Boaz	Chaves	4,154	2	59.0	.....	86	22	30	16	48	2.04	.....	1.15	0	3	15	11	4	w.	D. C. Savage.
Capitan	Lincoln	6,348	2	.....	.....	.....	.....	.....	.....	.....	2.35	.....	1.00	0	3	0	20	10	s.	Agent E. P. & S. W. R. R.
Carlsbad	Eddy	3,120	16	65.0	+ 1.2	92	23	39	19	50	1.75	+ 1.03	1.16	0	3	20	3	7	w.	U. S. Reclamation Service.
Carrizozo	Lincoln	5,429	3	56.7	.....	78	22	38	8†	34	1.13	.....	0.78	0	3	26	1	3	sw.	Agent E. P. & S. W. R. R.
Carson Park	Taos	7,650	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Lester S. Myers.
Chama	Rio Arriba	7,851	12	42.4	+ 0.1	68	22	16	13	45	0.86	− 0.62	0.80	0	2	20	9	1	sw.	Frank C. Johnson.
Cloudcroft	Otero	8,650	8	43.4	.....	67	1	21	15	38	0.40	.....	0.20	T.	3	15	3	12	sw.	Agent E. P. & S. W. R. R.
Corona	Lincoln	6,666	2	.....	.....	.....	.....	.....	.....	.....	1.98	.....	1.31	1.0	5	15	13	2	w.	Do.
Coyote	do	5,800	2	.....	.....	.....	.....	.....	.....	.....	0.63	.....	0.25	0	3	21	4	5	sw.	Do.
Cundiyo	Santa Fe	6,889	2	.....	.....	.....	.....	.....	.....	.....	0.94	.....	0.60	0	4	18	7	5	w.	Teofilo Vijil.
Demonstration Farm	San Miguel	6,800	2	.....	.....	.....	.....	.....	.....	.....	0.85	.....	0.50	0	4	.....	.....	.....	.....	Erb & Westerman.
Duran	Torrance	6,272	2	.....	.....	.....	.....	.....	.....	.....	1.37	.....	0.95	T.	3	23	3	4	e.	Agent E. P. & S. W. R. R.
Elk (near)	Chaves	7,400	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Boyd Williams.
Escondido	Otero	4,014	2	.....	.....	.....	.....	.....	.....	.....	0.51	.....	0.24	0	5	21	3	6	w.	Agent E. P. & S. W. R. R.
Espanola	Rio Arriba	5,590	13	52.8	+ 2.3	80	1	26	13	50	0.79	− 0.03	0.35	0	4	14	10	6	s.	Mrs. E. F. McBride.
Estancia	Torrance	6,140	6	50.0	.....	74	15	29	1†	42	0.87	.....	0.72	0	4	19	10	1	e.	Agent N. M. Central R. R.
Fort Stanton	Lincoln	6,231	33	52.3	+ 1.0	77	21†	24	16	48	1.99	+ 1.37	1.35	T.	5	14	10	6	w.	U. S. Sanitarium.
Fort Sumner	Guadalupe	3,960	3	57.4	.....	85	22	28	10	48	2.39	.....	1.34	0	5	23	3	4	e.	F. A. Manzanares.
Gallinas	Lincoln	6,635	2	.....	.....	.....	.....	.....	.....	.....	1.71	.....	0.55	0	4	21	3	6	w.	Agent E. P. & S. W. R. R.
Gallinas Planting Station.	San Miguel	7,500	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service.
Glorieta Ranch	Socorro	5,700	....	.....	.....	.....	.....	.....	.....	.....	0.71	.....	0.49	T.	4	18	7	5	se.	Chas. M. Crossman.
Harveys Upper Ranch	San Miguel	9,400	2	.....	.....	.....	.....	.....	.....	.....	2.13	.....	0.46	22.0	10	9	15	6	se.	Simon B. Warner.
Hillsboro	Sierra	5,224	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Frank I. Givens.
Hodges	Taos	8,484	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Austin Porter.
Hondo Reservoir	Chaves	3,904	2	60.8	.....	87	22	33	16	48	2.67	.....	1.22	0	5	19	5	6	w.	U. S. Reclamation Service.
Hope	Eddy	4,000	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. W. Board.
Jemez Springs	Sandoval	6,100	1	50.5	.....	72	21†	28	13	35	0.47	.....	0.17	T.	5	11	8	11	sw.	Linus L. Shields.
Knowles (near)	Eddy	4,300	1	61.2	.....	86	11†	36	4†	50	1.05	.....	0.56	0	5	12	12	6	se.	J. W. Mosley.
Laguna	Valencia	5,840	6	54.7	.....	79	21†	30	15	39	0.82	.....	0.67	0	2	.....	.....	.....	w.	Gus Weiss.
Lagunita	Guadalupe	4,500	6	54.4	.....	81	21	23	16	48	1.71	.....	1.55	0	4	16	8	6	sw.	P. A. Turnbull.
Lake Valley	Sierra	5,412	6	.....	.....	.....	.....	.....	.....	.....	0.35	.....	0.33	T.	2	15	13	2	sw.	Wm. P. Keil.
Las Vegas	San Miguel	6,384	24	49.5	− 0.1	72	21†	25	19	44	0.93	− 0.07	0.50	2.0	7	13	12	5	w.	N. M. Normal University.
Liston	Chaves	5,000	1	.....	.....	.....	.....	.....	.....	.....	2.17	.....	1.56	0	5	10	17	3	sw.	H. G. Liston.
Los Lunas (near)	Valencia	4,900	21	56.6	+ 0.3	82	21†	31	14†	48	0.60	− 0.05	0.28	0	3	14	15	1	.....	Richard Pohl.
Magdalena	Socorro	6,557	6	50.7	.....	80	21	28	14	44	0.52	.....	0.22	T.	3	17	10	3	w.	Wm. Pender.
Mescalero	Otero	6,475	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Rev. R. H. Harper.
Mineral Hill	San Miguel	7,050	6	.....	.....	.....	.....	.....	.....	.....	1.32	.....	0.75	3.0	4	1	24	5	sw.	W. M. Nelson.
Monterey	Otero	4,436	2	.....	.....	.....	.....	.....	.....	.....	0.66	.....	0.54	0	3	24	6	0	w.	Agent E. P. & S. W. R. R.
Mountainair	Torrance	6,547	9	49.2	.....	76	1	24	9†	40	1.44	.....	0.80	3.0	3	20	8	2	sw.	Mrs. J. W. Borbett.
Newman	Otero	3,989	2	.....	.....	85	28	.....	.....	.....	1.74	.....	1.70	0	2	22	0	8	w.	Agent E. P. & S. W. R. R.
Noria	Dona Ana	4,114	2	.....	.....	90	20†	.....	.....	.....	0.20	.....	0.20	0	1	21	0	9	w.	Do.
Orange	Otero	5,000	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	James Brownfield.
Orogrande	do	4,171	2	.....	.....	.....	.....	.....	.....	.....	0.55	.....	0.50	0	3	11	11	8	w.	Agent E. P. & S. W. R. R.
Oscura	Lincoln	5,016	2	.....	.....	.....	.....	.....	.....	.....	0.76	.....	0.41	0	4	.....	.....	.....	.....	Eugene F. Jones.
Otis	Eddy	3,100	2	.....	.....	.....	.....	.....	.....	.....	1.94	.....	1.74	0	2	14	9	7	se.	A. M. Hove.
Otto	Santa Fe	6,200	2	.....	.....	.....	.....	.....	.....	.....	0.41	.....	0.24	1.5	3	.....	.....	.....	.....	O. H. Johnson.
Pastura	Guadalupe	5,285	2	.....	.....	.....	.....	.....	.....	.....	2.35	.....	1.00	0	5	16	9	5	sw.	Agent E. P. & S. W. R. R.
Placitas (near)	Bernalillo	8,000	....	44.8	.....	68	23	22	9	35	2.12	.....	0.88	8.0	6	11	15	4	w.	Geo. C. Ellis.
Plainview	Chaves	4,300	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	L. P. Adair.
Red River Canyon	Taos	8,956	3	39.3	.....	66	25	16	21	45	0.97	.....	0.35	10.0	6	18	11	1	e.	Mrs. L. R. Penn.
Rincon	Dona Ana	4,030	13	60.0	− 0.4	86	21	32	17	46	0.17	+ 0.01	0.17	0	1	12	5	13	w.	Charles H. Raitt.
Rio Grande Dam	Sierra	4,265	13	60.0	+ 1.0	85	11	35	8	44	0.44	+ 0.07	0.15	0	4	23	6	1	sw.	U. S. Reclamation Service.
Rio Grande Industrial School.	Bernalillo	5,000	....	54.9	.....	79	21†	49	19	48	0.31	.....	0.25	0	2	22	7	1	w.	Rev. A. C. Heyman.
Rosedale	Socorro	6,910	6	49.8	.....	73	21	28	3	35	0.91	.....	0.40	1.0	7	14	5	11	w.	W. H. Martin.
Roswell	Chaves	3,578	13	60.5	− 0.1	87	22	34	16	52	2.16	+ 1.76	1.71	0	4	9	16	5	se.	U. S. Weather Bureau.
San Marcial	Socorro	4,439	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent A., T. & S. F. R. R.
San Rafael	Valencia	6,509	7	53.6	.....	87	21	27[d]	14†	53[d]	1.06	.....	0.47	0	7	19	4	7	sw.	Dr. Chas. M. Grover.
Santa Fe	Santa Fe	7,013	38	47.1	− 0.5	68	23	27	13	35	0.48	− 0.38	0.37	T.	8	13	15	2	sw.	Section Center.
Santa Fe Canyon	do	8,000	1	.....	.....	.....	.....	.....	.....	.....	1.13	.....	0.40	.....	4	13	5	12	w.	C. Martinez.
Santa Rosa	Guadalupe	4,624	11	56.6	.....	83	21†	28	16	51	2.06	+ 1.53	1.47	0	4	12	14	4	w.	John L. Chapman.
Socorro	Socorro	4,600	19	59.0	+ 1.2	83	22†	33	11†	47	1.18	+ 0.51	0.62	0	6	19	9	2	se.	J. J. Leeson.
Stanley	Sante Fe	6,317	2	48.8	.....	74	22†	25	15	46	0.27	.....	0.18	0	3	6	22	2	w.	Henry Winan.
Strauss	Dona Ana	4,080	12	.....	.....	.....	.....	.....	.....	.....	0.79	+ 0.57	0.60	0	2	17	5	8	sw.	Agent Southern Pacific R. R
Swastika Ranch	Valencia	6,400	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Swastika S. & L. Co.
Taft	Guadalupe	5,000	1	.....	.....	.....	.....	.....	.....	.....	1.35	.....	1.30	0	3	11	15	4	s.	J. F. Nappier.
Tajique (near)	Torrance	6,900	1	.....	.....	.....	.....	.....	.....	.....	2.64	.....	1.50	10.5	5	7	21	2	.....	U. S. Forest Service.
Taos	Taos	6,983	13	48.4	− 0.1	74	22	25	16	44	0.67	− 0.28	0.35	0.5	7	14	14	2	w.	Alex. Gusdorf.
Taos Canyon	do	8,959	2	.....	.....	.....	.....	.....	.....	.....	1.13	.....	0.36	1.7	9	.....	.....	.....	.....	L. Martinez, jr.
Tecolote	Lincoln	6,539	2	.....	.....	.....	.....	.....	.....	.....	1.68	.....	1.35	0	4	16	6	8	w.	Agent E. P. & S. W. R. R.
Three Rivers	Otero	4,559	2	.....	.....	.....	.....	.....	.....	.....	0.62	.....	0.51	0	5	19	4	7	.....	Do.

TABLE 1.—*Climatological data for April, 1911. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	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, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
New Mexico—Con.																				
Tijeras Canyon	Bernalillo	6,214	1								0.88		0.60	T.	4	15	13	2	sw.	U. S. Forest Service.
Torrance	Torrance	6,433	2								1.22		0.84	T.	5	5	19	6	sw.	Agent E. P. & S. W. R. R.
Tres Piedras	Taos	8,076	6																	Edwin B. Seward.
Truchas	Rio Arriba	7,935	2	43.8		66	3	23	1†	43	0.50		0.50		1					I. Cordova.
Tularosa	Otero	4,436	3																	Irby L. Fairless.
Vaughn	Guadalupe	5,952	2								1.72		1.10	T.	4	12	12	6	ne.	Agent E. P. & S. W. R. R.
Virsylvia	Taos	7,500		49.1		78	26	28	13	40	0.83		0.30	2.2	8	18	7	5	s.	Dr. I. N. Woodman.
Winsors	San Miguel	8,200	13	39.8	− 0.3	65	22†	18	18	43	0.84	− 0.57	0.31		6	14	5	11	w.	Henry D. Winsor.
Texas.																				
Abilene	Taylor	1,738	26	62.8	− 1.6	90	12	43	9	36	2.71	+ 0.43	1.20	0	11	5	4	21	s.	U. S. Weather Bureau.
Albany	Shackelford	1,429	17	61.6	− 2.4	89	12	32	2	53	2.53	+ 0.50	1.02	0	7	11	2	17		N. L. Bartholomew.
Alvin	Brazoria	49	13	69.4		88	22	48	9	29	9.06	+ 5.67	3.23	0	8	13	4	13	se.	Alvin Japanese Nursery.
Anahuac	Chambers	23	2								7.60		1.53	0	11					B. H. Collins.
Antelope	Jack										1.44		0.52	0	5	13	13	4		Chas. C. Hawkins.
Austin	Travis	593	55	67.2	− 0.7	85	6	47	9	32	5.06	+ 1.89	1.27	0	12	9	8	13	ne.	A. Deussen.
Ballinger	Runnels	1,637	15	64.5	− 0.4	91	12	42	16	41	3.04	+ 0.71	1.25	0	6	7	5	18	s.	E. M. Eubank.
Barstow	Ward	2,573	4	66.4[i]		95	12†	40	11†	50[i]	2.10		1.60	0	2	18	8	4	e.	Lee F. Freeman.
Bay City	Matagorda	53	1								8.54		2.87	0	8	7	4	19	s.	E. C. Quereau.
Beaumont	Jefferson	29	10								5.96	+ 3.01	3.74	0	5					John Bender.
Beeville	Bee	225	15	72.6	+ 2.0	93	5	53	27	33	3.13	+ 0.51	0.79	0	7	2	5	23	se.	L. E. Dickey.
Big Springs	Howard	2,396	13	64.8		92	22	41	9†	47	2.55	+ 0.88	0.59	0	8	7	13	10	s.	B. Reagan.
Blanco	Blanco	1,350	15	66.0	+ 2.6	89	6	44	9	37	5.33	+ 1.81	1.91	0	11	9	12	9	s.	R. C. Crist.
Boerne	Kendall	1,412	19	65.9	− 0.1	96	11	51	15	27	4.72	+ 1.18	1.07	0	16	3	6	21	s.	F. W. Schwepoe.
Booth	Fort Bend	81	10								8.82	+ 5.59	2.85	0	9	10	0	20	se.	T. R. Booth.
Bowie	Montague	1,113	16	64.8	+ 0.7	90	22	41	5†	41	1.92	− 1.04	0.83	0	9	8	8	14	s.	Craig Anderson.
Brady	McCulloch	1,500	10								2.63	0.00	1.50	0	6	17	8	5	s.	Geo. Virling, jr.
Brazoria	Brazoria	25	22	72.1	+ 2.9	87	5	51	9	27	9.80	+ 6.26	2.50	0	15	16	7	7	s.	Mrs. M. A. Stevens.
Brazos	Palo Pinto	801	2								2.36		0.70	0	5	3	15	12	se.	Robt. E. Boyett.
Brenham	Washington	350	26	68.8	0.0	88	14	49	9	26	6.04	+ 2.39	1.64	0	13	5	3	22	ne.	Mrs. B. F. Sloan.
Bridgeport	Wise	754	2								3.07		0.68	0	9	6	2	22	s.	Claude Strange.
Brighton	Nueces	12	18	73.2	+ 1.9	89	4	53	27	31	5.04	+ 3.15	1.56	0	5	14	7	9	se.	G. H. Ritter.
Brownsville	Cameron	38	47	74.9		92	5	57	16	31	2.05		1.20	0	4				s.	U. S. Weather Bureau.
Brownwood	Brown	1,342	19	64.2	− 1.1	91	6	43	9	40	3.85	+ 2.54	0.88	0	13	2	20	8	s.	Mrs. Pearl Smith.
Cameron	Milam		3	66.6		91	6	47	9	34	5.54	+ 2.19	1.40	0	14	13	10	7	s.	J. E. Watts.
Carmona	Polk	330	3	69.0		90	22	45	9	34	9.89		1.70	0	16	13	4	13	s.	M. S. Spitler.
Claytonville	Fisher	2,100	16	60.5	− 8.2	90	12	40	14†	49	1.76	− 0.23	0.70	0	6	4	16	10	e.	Wm. Lanius.
Clifton	Bosque	671									5.42		1.25	0	13	2	14	14	s.	R. M. Jones.
Coleman	Coleman	1,710	17	63.7	− 0.3	87	6	44	9†	33	5.16	+ 2.59	1.35	0	8	6	12	12	s.	J. E. Stevens.
College Station	Brazos	308	21	69.4	+ 1.3	89	15	43	9	37	7.08	+ 3.71	1.42	0	15	11	9	10	s.	Prof. G. S. Fraps.
Colorado	Mitchell	2,066	17	63.2[f]	− 1.6	90	6†	38	18†	48	2.03	− 0.87	0.73	0	6				s.	R. M. Webb.
Columbia	Brazoria	34	22	70.2	+ 0.6	88	6	53	16	28	7.78	+ 4.88	2.00	0	11	7	15	8	s.	R. B. Loggins.
Columbus	Colorado	206	7								3.66		1.52	0	7	6	4	20	se.	Mrs. Sophie Bridge.
Corpus Christi	Nueces	20	24	72.2	+ 1.3	92	5	55	9	29	3.95	+ 2.15	1.13	0	9	5	11	14	se.	U. S. Weather Bureau.
Corsicana	Navarro	445	22	64.2	− 2.7	87	12	45	9	35	6.00	+ 2.30	1.66	0	17	9	9	12	s.	D. H. Winn.
Crockett	Houston	350	7	67.5		89	6	45	9	36	9.87		2.30	0	15	10	6	14	s.	A. M. Rencher.
Cuero	De Witt	177	21	74.4	+ 4.0	90	7†	53	16	35	4.37	+ 1.33	1.13	0	8	10	2	18	s.	H. R. Frobese.
Dallas	Dallas	466	22	64.8	− 0.1	92	6	43	9†	46	3.15	− 0.83	1.03	0	14	5	0	25	s.	G. A. Eisenlohr.
Danevang	Wharton	145	15	72.0	+ 2.9	87	11†	50	10	26	8.25	+ 4.36	2.75	0	8	15	4	11	se.	H. P. Hermansen.
Decatur	Wise	1,047	15								3.79	+ 0.52	1.00	0	5	14	14	2		Ft. W. & D. C. Ry.
Del Rio	Valverde	952	5	69.8	− 0.2	95	6	47	16	43	2.85	− 0.09	1.36	0	11	3	18	9	se.	U. S. Weather Bureau.
Devine	Medina	653	1	71.7		98	6	37	23	47	3.41		1.12	0	6	3	16	11	se.	M. A. Keller.
Dialville	Cherokee	575	7	66.4		88	6	45	9†	40	8.71		1.85	0	13	4	14	12	s.	J. M. B. McKnight.
Dilley	Frio	569	1								3.25		1.10	0	5					John W. Miller.
Dublin	Erath	1,466	15	62.0	− 1.4	87	6	42	9	38	3.92	+ 0.56	0.92	0	13	5	7	18	s.	Jno. O. Shafer.
Duval	Travis	820	2	66.7	− 2.0	85	6	46	9	28	8.71	+ 4.94	1.61	0	13	8	8	14	se.	J. C. Edgar.
Eagle Pass	Maverick	800	34	72.2	− 0.2	98	6	49	16	42	0.96	− 0.64	0.32	0	7	8	10	12	s.	Charles Tarver.
Edna	Jackson	71	2								9.58		2.42	0	6					E. L. Faires.
El Paso	El Paso	3,762	32	62.8	− 1.0	85	22	40	17	36	0.47	+ 0.24	0.37	0	4	15	9	6	w.	U. S. Weather Bureau.
Encinal	Lasalle	558	3	70.7		102	6	50	16	43	2.09		0.65	0	7	7	13	10	e.	H. C. Braden.
Fairland	Burnet	1,000	22	67.0	− 0.2	91	6	47	9†	35	9.59	+ 6.09	2.33	0	11	6	12	12	s.	R. L. Bush.
Falfurrias	Starr		3	75.5		102	6	53	27	42	3.62		1.73	0	4	8	18	4	se.	W. A. Gardner.
Flatonia	Fayette	465	3	69.9		88	5†	50	16†	30	5.19		0.88	0	15	6	6	18	s.	Fred W. Laux.
Flint	Smith	483	1	66.6		90	6	46	9	32	7.95		1.39	0	17	10	5	15	s.	F. C. C. Carter.
Fort Clark	Kinney	1,050	40	66.6	− 4.5	90	4†	42	15†	42	3.73	+ 1.89	0.83	0	11	6	11	13	se.	Post Hospital.
Fort McIntosh	Webb	460	43	77.4	+ 1.9	105	6	53	16	42	1.72	− 0.09	0.87	0	4	8	12	10	e.	Do.
Fort Stockton	Pecos	3,050	14	66.6	+ 2.2	94	12	41	16	47	3.50	+ 3.04	2.25	0	4	7	18	5	se.	H. H. Butz.
Fort Worth	Tarrant	670	16	63.8	− 1.5	90	6	42	9	35	3.33	+ 0.68	1.84	0	10	6	9	15	s.	U. S. Weather Bureau.
Fredericksburg	Gillespie	1,742	22	65.0	− 0.9	88	6	45	15†	36	6.78	+ 3.40	3.02	0	14	1	12	17	s.	Arthur Striegler.
Gainesville	Cooke	738	21	63.3	− 0.5	88	22	39	9	32	2.69	− 0.75	0.79	0	10					J. L. Hickson.
Galveston	Galveston	69	40	70.4	+ 1.7	82	30	53	9	22	7.63	+ 4.50	4.97	0	11	7	14	9	se.	U. S. Weather Bureau.
Gatesville	Coryell	795	7	65.2		90	6	42	10	43	7.71		1.50	0	10	14[f]	10[f]	0[f]		John Ryan.
Georgetown	Williamson	750	16	65.9	− 0.5	88	6†	45	9	42	6.54	+ 2.72	1.75	0	17	7	11	12	s.	Prof. R. F. Young.
Gonzales	Gonzales	299	6								3.65		1.31	0	11	8	3	19	s.	J. M. Johnson.
Gorham	McLennan	444	2	65.2		89	6	45	8	32	4.95		1.75	0	7	3	11	16	s.	John Gorham.
Graham	Young	1,040	12	68.3	+ 2.9	93	6	39	9	40	2.07	− 0.38	0.52	0	12	13	3	14	s.	C. W. Johnson.
Grand Saline	Van Zandt	399	1								8.93		2.05	0	12	7	8	15	se.	F. E. Whittemore.
Grapevine	Tarrant	670	21	66.6[d]	+ 1.1	92	6	44	9	30[d]	3.08	− 0.74	1.04	0	8	1[d]	11[d]	14[d]	s.	W. J. Crowley.
Greenville	Hunt	550	11	64.2	+ 0.3	90	6	43	9	45	6.49	+ 2.43	1.75	0	11	6	0	24	e.	J. P. Regan.
Hallettsville	Lavaca	235	19	71.2	+ 0.9	89	14	52	9†	26	4.99	+ 1.59	1.12	0	8	9	5	16	s.	Dr. J. E. Lay.
Hamlin	Jones	1,685									2.19		0.90	0	6					W. S. Carruthers.
Harper	Gillespie										7.42		2.83	0	10	7	0	23		Christian Fritz.
Haskell	Haskell	1,553	16	64.6	− 0.4	95	12†	42	15	43	1.69	− 0.88	0.95	0	5	6	7	17	se.	P. D. Sanders.
Hebbronville	Duval		4								2.23		0.90	0	5					Henry Edds.
Hempstead	Waller	254	7								6.13		1.53	0	8	7	2	21	s.	J. H. Hancock.
Henderson	Rusk	500	2								8.74		2.75	0	14	10	6	14		M. Kangerga.
Hewitt	McLennan	664	16								5.14	+ 0.68	1.10	0	11					I. H. Earle.
Hico	Hamilton										3.41		.59	0	14	4	13	13	n.	John A. Eakins.
Hillsboro	Hill	628	8	68.6		96	12	42	9	39	5.83		1.75	0	8					W. G. Escott.
Hondo	Medina	901	12	67.4		90	11	48	15	39	3.68	+ 0.78	1.27	0	7	2	18	10		H. E. Haass.
Houston	Harris	138	21	70.6	+ 1.0	86	14	50	9	29	8.67	+ 4.96	3.56	0	13	4	13	13	se.	U. S. Weather Bureau.
Huntsville	Walker	400	27	67.5	− 0.3	88	6†	46	9	35	11.33	+ 7.37	3.18	0	11	6	0	24	se.	W. Y. Barr.
Jayton	Kent		1								2.42		1.15	0	6	10	4	16	s.	Wichita Valley Railway.
Jewett	Leon	496	7	66.6		90	11	46	9	39	5.86		1.26	0	8	5	7	18	s.	Earle Adkisson.
Junction	Kimble	1,645	8	63.7		90	6†	40	15	45	4.96		2.00	0	4	13	0	17	s.	Judge John S. Durst.

TABLE 1.—*Climatological data for April, 1911. District No. 8*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	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, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Texas—Continued.																				
Kaufman	Kaufman	448	12	66.6	+ 0.2	87	13†	44	9	28	8.67		3.56	0	11	4	14	12	ne.	B. J. Hubbard.
Kerrville	Kerr	1,650	15	64.8	− 0.7	87	5	45	16	38	5.37	+ 1.72	1.56	0	8	7	5	18	s.	Robert E. Horne.
Knickerbocker	Tom Green	2,050	7	64.6		91	13	40	15	39	2.75		1.25	0	6	14	6	10	se.	Jos. Tweedy.
Kopperl	Bosque	576	14								4.36	+ 0.75	1.40	0	7	7	5	18	s.	T. A. Johnson.
Lagrange	Fayette	276	1								4.88		0.98	0	14	12	2	16	se.	August Hermes.
Lamesa	Dawson	2,500	1								2.80		0.91	0	7					S. D. Austin.
Lampasas	Lampasas	1,026	19	65.3	− 0.1	92	5	44	9	43	5.95	+ 2.44	1.36	0	11	6	6	18	s.	Mrs. K. I. Webber.
La Parra	Cameron	38	9								4.27		1.56	0	5					Jno. G. Kenedy.
Laureles Ranch	Nueces	20	11								4.28	+ 2.25	1.75	0	3					Matt Cody.
Liberty	Liberty	38	7	70.5		89	5†	49	9	31	6.52		1.50	0	10	7	19	4	s.	Mrs. Fannie Sneed.
Llano	Llano	1,040	20	65.8	− 2.8	91	6	46	17	37	3.41	+ 0.71	1.09	0	11	11	15	4	e.	E. W. Torrence.
Llano Grande	Hidalgo	86	3	75.1		98	5	49	27	40	1.50		1.25	0	2	12	15	3	se.	M. D. Wardlow.
Long Lake	Anderson	229	6								9.89		1.80	0	12	7	1	22	s.	Geo. W. Ellis.
Longview	Gregg	336	25	65.4	+ 0.1	90	6	42	9	37	7.96	+ 3.57	1.69	0	12	7	0	23	se.	C. A. Propst.
Lubbock	Lubbock										2.36		1.81	0	7	11	13	6	se.	A. L. Paschall.
Lufkin	Angelina	325	4	68.8		89	6†	45	9	31	11.95		2.78	0	14	16	2	12	s.	T. A. King.
Luling	Caldwell	418	22	68.2	− 1.5	87	6	49	16	30	4.78	+ 1.84	1.48	0	12	5	8	17	s.	John Carter.
McGregor	McLennan	713	1								5.98		1.38	0	7	13	5	12	s.	W. H. Whitley.
Marathon	Brewster	4,043	1	61.6		87	13	33	15	46	2.15		1.20	0	3	9	3	18	s.	Rev. A. P. Willis.
Marble Falls	Burnet	771	3								9.58		2.94	0	10	8	0	22	s.	J. J. Faubion.
Marfa	Presidio		3								1.70		1.70	0	1					R. K. Colquitt.
Marshall	Harrison	375	2	66.1		88	6	45	8†	34	10.53		1.55	0	13	0	22	8	ne.	Lee Scott.
Matagorda	Matagorda	12	1								6.71		3.00	0	7	18	4	8	se.	W. E. McNabb.
Mexia	Limestone	537	7	65.0		88	7	43	9†	33	7.78		1.65	0	16	4	10	16	s.	Miss Josephine Newman.
Midland	Midland		4								3.67		1.62	0	6	8[a]	10[a]	7[a]	se.	W. H. Neeb.
Mission	Hidalgo	149	1	75.7		97	3†	55	16	37	2.82		1.04	0	6	11	17	2	se.	L. H. Romig.
Mont Belvieu	Chambers	65	1								8.58		2.04	0	11	10	14	6	n.	A. R. Shearer.
Mountain View	Pecos	2,900	1																	Lucius W. Gosselin.
Mount Blanco	Crosby	2,750	22	57.2	− 2.9	81	2†	36	15	36	2.10	+ 0.23	1.48	0	5	13	3	14	s.	H. C. Smith.
Nacogdoches	Nacogdoches	271	12	64.8	− 0.3	87	6	46	9	31	9.62	+ 4.93	2.07	0	11	6	3	21	s.	Miss Mary Hofmann.
New Braunfels	Comal	720	22	66.8	− 1.8	86	6	49	16	30	4.64	+ 1.16	1.67	0	8	4	16	10	ne.	J. Giesecke.
Palestine	Anderson	510	29	65.6	− 0.3	87	6	47	9	28	8.24	+ 4.16	1.76	0	17	8	8	14	s.	U. S. Weather Bureau.
Panter	Hood	1,000	22								3.34	+ 0.06	0.79	0	12					E. H. Snider.
Pearsall	Frio	629	1								2.20		0.85	0	8					Earnest De Vilbiss.
Pierce	Wharton	102	5	69.0		87	14	45	9	31	7.33		1.74	0	9	8	13	9		R. B. Pointer.
Plainview	Hale	3,370	15	57.8	− 2.1	90	22	32	15	46	4.80	+ 3.00	2.36	0	5	12	13	5	s.	J. F. Sander.
Port Arthur	Jefferson										3.39		1.62	0	6	6	15	9	sw.	Griffing Bros. Co.
Port Lavaca	Calhoun	20	10	71.8	+ 2.1	92	5	52	4†	30	6.15	+ 2.98	1.43	0	8	6	12	12	s.	J. H. Bickford.
Post City	Garza	2,700	1								2.62		1.10	0	7	14	11	5	sw.	W. L. Dodd.
Putnam	Callahan										3.51		0.85	0	10	5	12	13	s.	Jos. Reisdorff.
Raymondville	Cameron										1.50		0.82	0	6					C. H. Pease.
Ricardo	Nueces	57	2	77.3		98	6	60	16	26	3.95		1.20	0	8	9	15	6	se.	Lindsay Waters.
Riverside	Walker	169	7								7.95		2.25	0	8	9	0	21	s.	Mrs. C. W. Higdon.
Robert Lee	Coke	1,850	12	62.4	− 1.8	89	6	37	27	43	2.69	+ 0.59	1.03	0	9	10	10	10	s.	H. D. Pearce.
Rockland	Tyler	136	7								9.38		2.50	0	11	7	5	18	s.	D. W. Bellamy.
Rockport	Aransas	12	10	71.6	+ 2.0	82	6†	52	9†	20	6.05	+ 4.25	2.05	0	5	10	17	3	se.	Mrs. G. B. Grewe.
Rossville	Atascosa	558	4	68.8		92	6	40	2	36	4.45		1.26	0	6	4	18	8	n.	W. F. M. Ross.
Runge	Karnes	308	16								2.52	− 1.00	1.15	0	3					Reiffert & Frobese.
Sabinal	Uvalde	964	7	69.8		90	6†	48	16	39	4.84		1.17	0	9	5	2	23	e.	Jas. Johnston.
Salado	Bell		1								7.77		1.50	0	12	4	0	26	s.	L. M. Crockett.
San Angelo	Tom Green	1,847	20	64.8	− 0.2	91	6	41	15†	37	3.08	+ 1.21	0.92	0	8	11	13	6	s.	Sam Crowther.
San Antonio	Bexar	701	26	68.6	− 0.4	92	6	49	16	33	3.41	+ 0.47	0.98	0	10	3	13	14	se.	U. S. Weather Bureau.
San Augustine	San Augustine	360	2	68.7		91	6	46	10	34[c]	12.82		2.48	0	14	13	3	14		F. A. Wilson.
San Juanito	Hidalgo		2	77.4		99	3†	50	9	34	2.17		0.94	0	9	3	7	20	se.	J. B. McAllen.
San Marcos	Hays	588	18	68.0	+ 1.0	87	6	50	16†	31	5.09	+ 1.69	1.48	0	8	8	0	22	n.	Miss L. C. Ford.
San Saba	San Saba	1,712	10	65.0	− 0.8	90	6	42	9	39	7.33	+ 4.85	1.60	0	16	9	11	10	s.	Jas. Burns.
Santa Gertrudes	Nueces		11								3.88	+ 1.85	2.00	0	3					J. B. Wright, jr.
Sealy	Austin	201									6.95		1.22	0	15	8	9	13	s.	O. H. Albert.
Seymour	Baylor	1,320	5	66.4		95	12	40	1†	48	2.25		1.11	0	5	7	0	23		S. C. Lee.
Somerville	Burleson	251	2																	W. A. Dolan.
Sonora	Sutton	2,200	8																	Mike Murphy.
Stamford	Jones			60.4		86	6	40	9†	30	2.08		0.87	0	7	6	19	5		T. A. Williams.
Sugarland	Fort Bend	79	13																	Cunningham Sugar Co.
Sutherland Springs	Wilson		1	72.2		91	6	52	5†	36	5.82		2.40	0	10	7	5	18	se.	W. A. Clark.
Taylor	Williamson	583	10	66.2	− 1.3	88	6	47	9	31	5.92	+ 1.95	1.73	0	13	7	11	12	n.	U. S. Weather Bureau
Temple	Bell	630	21	64.9	− 1.5	85	6†	43	8	29	5.32	+ 1.44	1.94	0	12	9	10	11		W. Goodrich Jones.
Theodore	Winkler		1								4.13		1.45	0	5					W. H. Gibbs.
Thurber	Erath		1								3.22		0.93	0	12					J. K. Ball.
Tilden	McMullen		5	73.4		103	6	51	16†	46	3.89		1.10	0	7	4[b]	11[b]	13[b]	se.	Wm. Kuykendall.
Tivoli	Refugio		1								5.61		1.60	0	6					W. H. Gisler.
Uvalde	Uvalde	937	3	70.2		95	6	48	5†	44	3.85		1.36	0	7	3	20	7	se.	F. M. Getzendaner.
Valley Junction	Robertson	289	11								8.55	+ 4.49	1.60	0	10	14	1	15	s.	T. M. Williams.
Victoria	Victoria	187	12	72.4	+ 1.1	93	5	52	9	33	8.62	+ 5.41	3.75	0	7	9	1	20	s.	C. C. Zirjacks.
Waco	McLennan	424	22	65.8	− 1.3	88	6	48	9	35	6.82	+ 2.26	2.00	0	10	11	0	19	s.	E. H. Hall.
Waxahachie	Ellis	556	14	64.4	+ 0.4	92	6	41	9	45	5.90	+ 2.76	1.72	0	12	9	1	20	n.	C. D. Longserre.
Weatherford	Parker	864	22	63.7	− 0.9	88	6	43	9	41	1.98	− 1.04	0.58	0	11	12	2	16	s.	Miss J. Stickfort.
Wharton	Wharton	105	9	71.8		88	5†	50	9	33	6.78		3.15	0	7	10	1	19	n.	Mrs. F. M. Hughs.
Wills Point	Van Zandt	524	6	62.6		88	13	42	5	43	10.10		3.08	0	12	8	5	17	e.	W. W. Gibbard.
Zapata	Zapata	300	2																	A. P. Spohn.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for April, 1911. District No. 8. Texas and Rio Grande Valley.*

Stations.	Watershed.	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	
Colorado.																																
Blanca	Rio Grande			.23	T.		.01											T.						.36	T.		T.					0.60
Cumbres	do			T.		.09	.27	T.	T.	T.	.07						T.	.11						T.	T.	T.	T.	.29		.16		0.99
Garnett	do						.07		T.																.39							0.46
Hermit	do																															
La Veta Pass	do			.21		.12		T.	.30	T.		T.	T.						.35					.30	.26					T.		1.54
Manassa	do			.20	T.													.01	.10						.28	T.						0.59
Platoro	do			.24	.17	.38	1.01		T.	.29								.17							T.			.26		.34		2.86
Saguache	do			T.	.20		T.											T.				T.			.05	T.						0.25
San Luis	do			.45			.04	T.		.03	T.							.10	.01						.47			.08				1.18
Wagon Wheel Gap Exp. Sta.	do		T.	T.	.01	.04	.12		T.	T.	.18							.12			.01	.04	T.	T.	.18		T.	.03		.02		0.75
New Mexico.																																
Agricultural College	Rio Grande		.14	.04																.14												0.32
Alamogordo (near)	do		.01	.04																					.51	.27	T.	.01				0.84
Alamogordo	do		T.	T.																					.47	.20						0.67
Alamos Ranch	do			.08	.15		T.		.18	.01																		T.				0.42
Albuquerque	do		T.	.10	.03		.02	.02	.04																	.05		.02				0.28
Ancho	do								.15																.90		.10					1.15
Artesia	Pecos								.08																.96	1.26						2.30
Aspen Grove Ranch	Rio Grande				.26		.19	.08	.06	.05								.19	.12							.23	.03	.02				1.23
Batemans Ranch	do			T.			T.		T.	T.	T.							.20							T.	T.		T.				0.20
Bluewater	do		.02	.05	.13		.03	.10		.01								.40							.21	.02						0.97
Boaz	Pecos								.23																1.15	.66						2.04
Capitan	do						.40																		1.00	.95						2.35
Carlsbad	do				T.				.09																1.16	.50						1.75
Carrizozo	Rio Grande								.35																.53	.25						1.13
Carson Park	do																															
Chama	do			.06			T.			T.								T.										T.		.80		0.86
Cloudcroft	Pecos								.04																.16	.20						0.40
Corona	do							*	.67																*	*	1.31					1.98
Coyote	Rio Grande								.15																.23	.25						0.63
Cundiyo	do				.60		.04		.30																			.10				0.94
Demonstration F'm.	Pecos								.20															.10	.50	.05						0.85
Duran	do								.27																.15	.95	T.					1.37
Elk (near)	do																															
Escondido	Rio Grande		.04	T.	.05				T.																.24	.13	.05					0.51
Espanola	do			.30	.35					.04									T.										.10			0.79
Estancia	do						.11														.04				*	.72						0.87
Fort Stanton	Pecos			T.					.27																.70	.85	.14	.03				1.99
Fort Sumner	do							.03	.07															.65	1.34	.30						2.39
Gallinas	do								.48															.50	.55	.18						1.71
Gallinas Pl't'g Sta.	do																															
Glorietta Ranch	Rio Grande								.49	.02															.08	.12						0.71
Harveys Upper R'ch	Pecos		T.	.23		T.	.11		.42	.11	T.			T.			T.	T.	.06		.17			.14	.46	.27	.16	T.				2.13
Hillsboro	Rio Grande																															
Hodges	do																															
Hondo Reservoir	Pecos				.02				.41																1.00	1.22		.02				2.67
Hope	do																															
Jemez Springs	Rio Grande		T.	T.	.10	T.	T.	.08	.17	T.								.01							T.	T.		.11	T.	T.		0.47
Knowles (near)	Pecos			T.					T.								.06					.56			.01	.30	T.		.12			1.05
Laguna	Rio Grande								.67																	.15						0.82
Lagunita	Pecos								.12																*	1.55		.04				1.71
Lake Valley	Rio Grande		.02					T.	T.																.33	T.	T.					0.35
Las Vegas	Pecos			T.	T.			T.	.14	.07								T.	.01					.16	.04	.50	.01	T.				0.93
Liston	do							*	.54																*	1.56	.07					2.17
Los Lunas (near)	Rio Grande			.28				.25	.07																							0.60
Magdalena	do		.10	.05				T.	.22	T.															T.	.15						0.52
Mescalero	do																															
Mineral Hill	Pecos			.20				.07		.30								T.							.75							1.32
Monterey	Rio Grande		.06	T.					T.																.54	.06						0.66
Mountainair	do		T.		.05		T.	T.	.59																T.	.80						1.44
Newman	do			.04																					1.70							1.74
Noria	do																								.20							0.20
Orange	do																															
Orogrande	do		.05	T.																					.48	.02						0.55
Oscura	do				.06					.09															.41	.20						0.76
Otis	Pecos								T.														T.		.20	1.74						1.94
Otto	Rio Grande					T.	.04	T.	.13																.24							0.41
Pastura	Pecos							*	.25																.30	1.00	.80					2.35
Placitas (near)	Rio Grande						.52	.28	.88									T.							.07		.17	.20		T.		2.12
Plainview	Pecos																															
Red River Canyon	Rio Grande	.03																.32	.24						*	.35	T.	.03	T.			0.97
Rincon	do		T																							.17		T.				0.17
Rio Grande Dam	do		.15	.15				.06																		.08						0.44
Rio Grande Ind. Sch.	do				.25																					.06						0.31
Rosedale	do		.13	.11				.02	.40																.10	.13	.02					0.91
Roswell	Pecos			T.	.07			T.	.38																1.27	.44						2.16
San Marcial	Rio Grande																															
San Rafael	do			.02	.03		T.	.47	T.	.33															.15	.01		.05				1.06
Santa Fe	do		T.	.31	.06		.01	T.	.03	.01	T.							.03						T.	.01	.02	T.	T.				0.48
Santa Fe Canyon	do			.40			.35		.28										T.					T.	T.	.10		T.				1.13
Santa Rosa	Pecos								.14													T.		.05	.40	1.47		T.				2.06
Socorro	Rio Grande				.14	.01			.03	.32																.62	.06					1.18
Stanley	do			.09																					*	.18						0.27
Strauss	do		.19																						.60							0.79
Swastika Ranch	do																															
Taft	Pecos								.05																.62	.68						1.35
Tajique	Rio Grande			.27			.11		1.50																.71			.05				2.64
Taos	do			.12			.04		.10	.02								T.	.02					T.	T.			.35	.02			0.67
Taos Canyon	do			.36	.07		.35	T.	.06	T.	.01							T.	.10						T.	.03	.03	.12				1.13
Tecolote	do				.05				.28																.20	1.15						1.68
Three Rivers	do			.04	.04					.03															.32	.19						0.62
Tijeras Canyon	do			.11			T.	.06	.60																	.11		T.				0.88
Torrance	Pecos			.03				T.	.05												T.				.20	.84		.10				1.22
Tres Piedras	Rio Grande																															
Truchas	do			.50			T.																			T.		T.				0.50
Tularosa	do																															
Vaughn	Pecos		T.	T.				T.	.36															.06	.20	1.10						1.72
Virsylvia	Rio Grande			.30	.01				.02									.25	.10							.05		.09		.01		0.83
Winsors	Pecos			.31			T.		.31	.03								.05							.06	.08						0.84

TABLE 2.—*Daily precipitation for April, 1911. District No. 8*—Continued.

Stations.	Watershed.	Day of month. 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	Total.
Texas.																																
Abilene	Brazos			1.20	.05				.35	T.				T.	.04	.02	.04		.06				.48		T.	.06	.15			T.	.26	2.71
Albany	do			1.02	.18				.25	T.					T.	T.	T.	.17			T.			.35		.27					.29	2.53
Alvin	Coast	1.03		*	.93					.12	T.							.49	.36					2.90		3.23					T.	9.06
Anahuac	do	1.18		.58	1.00					.27		.03						.22	.14					1.26		1.19	1.53					.20	7.60
Antelope	Trinity			.50											.52			.13					.24									.05	1.44
Austin	Colorado			.68	1.27				.24		.06					.18			.09		.06	.05		.51		.50	.24					1.18	5.06
Ballinger ‖	do			1.25	T.				.22	.05					T.	T.	T.	.42	T.					T.			.10					1.00	3.04
Barstow	Pecos																										1.60	.50					2.10
Bay City ‖	Colorado	.98			1.55				T.										.71	.08		.63			1.57		2.87	.15					8.54
Beaumont ‖	Neches	3.74																.12							.94	1.04		.12					5.96
Beeville ‖	Coast			T.	.75					.20		T.						T.	.04			T.	.79		.59	.06	.70				T.	3.13
Big Springs	Colorado			.46					.29						T.	T.	.05	T.	.01				T.		.39	.38	.38				.59	2.55
Blanco ‖	Guadalupe		.01		1.91					.55		.01					.61		.10		.10				1.12	.02	.88	.02				5.33
Boerne	San Antonio			1.07	.48			T.	1.05		.03					.24	.12	.06		.13	.05	.02	.55	.02	.03	.44	.02				.41	4.72
Booth ‖	Brazos	.65			2.65							.10							.94	.10	.03			1.08	.42		2.85	T.				8.82
Bowie	Trinity				.83										.20	.07		.23	.16	.02				.14		.14						.13	1.92
Brady	Colorado		.70						.02							1.50	.36				.03					.02							2.63
Brazoria	Brazos	1.75	.01	.02	2.50					.05	.07	.02					T.	1.25	.07	.03	.26	.22		.81	T.	1.48	1.26				T.	9.80
Brazos ‖	do			.70	.65													.48									.30				.23	2.36
Brenham ‖	do	.74			1.64					.26		.06				T.	.02		.29	.26	.10	.13		.40	.56		1.57	.01				6.04
Bridgeport ‖	Trinity			.40	.53	.06				T.				T.	.30		T.	.20	.50					.28		.12	T.				.68	3.07
Brighton	Coast				1.56						T.						T.	.39						1.49		1.20	.40					5.04
Brownsville	Rio Grande									.02	.02						T.							1.20	T.	.81						2.05
Brownwood ‖	Colorado	.02		.88	.40	.05			.07	.08						.25	.35	.50	.05	T.		.15	T.	.67	T.		.38					3.85
Cameron ‖	Brazos	.93		.41	1.40				.13	.94		.07				.02	.33	.58	.02			.13			.10		.44	.04				5.54
Carmona	Neches	.41		.92	.79			T.	1.15	T.	T.	.12			T.		.10	.67	.72	.01	1.21			1.20	.48	.03	1.70	.03				.35	9.89
Claytonville	Brazos			.70					.36															.29	.10	.06						.25	1.76
Clifton	do			.94	1.16	.03			.27		T.		T.		T.	.46	.53	.10	.02		T.	T.		.40		.15	.07	.04			1.25	5.42
Coleman	Colorado			1.35	T.				.36						T.	.26	.34		T.		.74			.45	T.	.31	T.			T.	1.35	5.16
College Station	Brazos	.75		1.22	.44				1.42	.03						.02	.05	.50	.05		.04		1.26	.03		.13	.92				.22	7.08
Colorado	Colorado			.73					.28	.05									.10			.18			.63							2.03
Columbia	Brazos	1.75			1.00					.15		.05						.47			.95	.10		.75		.41	2.00	.15			T.	7.78
Columbus ‖	Colorado	.22			1.52							.02							.74		.22	.54			.40							3.66
Corpus Christi	Coast			1.01	.02						.06					T.	.03	.30	.01			T.		.60		1.13	T.				.79	3.95
Corsicana ‖	Trinity	.68		.07	.98	.22			.75	.04		.08			.02	.02	.60	.22	.36	.13				.03	1.66		.09	.05			T.	6.00
Crockett	do	.95		.88	.55	.11			.62		.02					.04	.31	1.85	T.		.46			2.30	.40	.02	1.14			T.	.22	9.87
Cuero ‖	Guadalupe	.70			.71															T.	.85	.18			.75	.07	1.10	.01				4.37
Dallas ‖	Trinity			.14	.89	.06			.02	.09	.03	.05				.72	.03	.31	.38	.30				T.	T.		.04	.09				3.15
Danevang	Coast	.80		2.75					.40		T.							.40	.05					1.10		1.00	1.75					8.25
Decatur	Trinity			.50	1.00														.50				.89								.90	3.79
Del Rio	Rio Grande	.02		1.36											.01	.32	.05			.04			.16	.44		.39				.01	.05	2.85
Devine	Nueces			1.12				T.	.75							T.	T.	.12	T.	T.	T.	T.		1.10	T.	.20	.12	T.			T.	3.41
Dialville	Neches	.40		1.35	.10				1.85	T.	.96					1.06		1.30	.06	T.	.05			.50		.30	.48				.30	8.71
Dilley	Nueces			.50					1.10												.20			.85		.60						3.25
Dublin ‖	Brazos	.35		.92	.47	.03			.31	.10						.10	.30	.34	.07					.02			.35				.56	3.92
Duval	Colorado	.44		.76	1.35				.75		.06		T.			.47	T.	.08	.09		.43	T.		1.51	.08	1.08	T.		T.	T.	1.61	8.71
Eagle Pass	Rio Grande			.14					.20							T.	.11	.03						.32		.13	.03					0.96
Edna	Lavaca			.72								T.						1.50			1.37			1.90		1.67					2.42	9.58
El Paso	Rio Grande		.09	.01																					.36	.01			T.			0.47
Encinal	Nueces			.13					.05								.19			.60				.65		.43	.04					2.09
Fairland	Colorado	.12		2.02					.73		T.		T.		T.	2.33	.10	.06	.03		.14			1.80	T.	1.10	T.		T.		1.16	9.59
Falfurrias	Coast			T.	.55				T.	T.	T.							T.				.64		1.73		.70	T.					3.62
Flatonia	Gaudalupe	.88		.45	.42				.07	.13	.02	.01					.01	.09	.04	T.	.56			.80		.72	.36				.63	5.19
Flint	Neches	.19		.65	.85	.02			1.39		T.	1.16	T.			.35	.04	1.33	.04	.27				.02	1.05	.02	.10	.06		T.	.41	7.95
Fort Clark ‖	Rio Grande	.20	.60	.38											.25	.25	.22			.50			.83		.12	.33	.05	T.	T.	T.	T.	3.73
Fort McIntosh	do			.17																		.18		.87		.50						1.72
Fort Stockton	Pecos								T.								.15	T.				T.	.10		T.	2.25	1.00					3.50
Fort Worth	Trinity			1.84	.05			T.	.22	T.			T.	T.	T.	.12	.15	.20	.04					T.		.09	.10	T.	T.	T.	.52	3.33
Fredericksburg	Colorado	.03		1.41					.42							3.02	.03	.06	.02		.03	.10	T.	.96	.03	.32	.06				.29	6.78
Gainesville	Trinity			.79	.32										.11	.33		.40	.11					.17		.14	.10				.22	2.69
Galveston	Coast	.80		.28	T.				T.		T.	T.				.06		.07	T.	.03	.01			1.21	.07	2.10	2.88				.12	7.63
Gatesville	Brazos	.40		1.50	1.30				.30							1.00	.85	.30						.70		.26					1.10	7.71
Georgetown ‖	do	.76		.15	1.60				.22	.56		.03				T.	.73	.03	.05	.08		.21	.01	.56	.37	.02	1.14	.02				6.54
Gonzales ‖	Guadalupe	.11			.53					.09		.06					.05		.06	.07	.80	.07		.50			1.31					3.65
Gorham ‖	Brazos	.65		1.75					.15	T.	T.					.55	.95	T.						.10			T.				.80	4.95
Graham	do			.35	.34				.08	T.				.06	.04	T.	.06	.02	.01					.52		.10	.09				.40	2.07
Grand Saline	Sabine	1.30		1.20				T.	1.04		T.	.30			T.	.32	.20	.82	.90	2.05						.03	.12				.65	8.93
Grapevine	Trinity			1.04	.31	.01											.20	.27	.02								.35	T.			.88	3.08
Greenville ‖	Sabine	.15			1.02	.50				T.		.37				.35		.17	.75	.95				1.75	.38			.10				6.49
Hallettsville	Lavaca	.20		T.	.72				T.		T.						T.	.16	T.		1.06			.75		.45	.53				1.12	4.99
Hamlin	Brazos	.90					.14									.11						.50				.12					.42	2.19
Harper	Colorado	.15		1.35			.37		.72							2.83	.05	.10			1.25					.20					.40	7.42
Haskell ‖	Brazos		.95																	.22				.30			.13				.09	1.69
Hebbronville	Coast			.18																		.90			.80	.20	.15					2.23
Hempstead ‖	Brazos	1.00			1.53					.20		T.						T.	.20	.90		.30			.50	T.	1.50	T.		T.		6.13
Henderson	Neches	.04		.78	.54	.04			1.09			2.75				.45		1.12	.04	.35					.98		.27	.20			.09	8.74
Hewitt	Brazos	.57		1.10	.72				.19		T.	.05	T.		T.	.60	.64	.31			T.		T.	T.		.09	.09			T.	.78	5.14
Hico	do			.59	.50	.07			.19	T.			.01			.38	.41	.09	.02		T.			.34	.02	.27	.04		T.		.48	3.41
Hillsboro	do	1.30	.62		1.00				.29									.75	.08	.04											1.75	5.83
Hondo ‖	Nueces			.96													.25	.05		.20	1.27		.75			.20						3.68
Houston	Coast	1.32	T.	1.32	.13				.15	T.	.05	.10				T.		.90	.19	.07			T.	.65		.56	3.00		T.	T.	.23	8.67
Huntsville ‖	Trinity	.94			3.18				.44	.80					T.			.41	.26	.70		2.18			.89		1.25	.98				11.33
Jayton	Brazos			.80					.01	.01													1.15	.10			.35					2.42
Jewett ‖	Trinity				1.26	T.				1.00		.23					1.05	.90	.25		T.				.94		.23	T.				5.86
Junction	Colorado	.66		1.80					.50							2.00																4.96
Kaufman	Trinity	1.02		.63	.38	.13			.30			.57				.27		.64	3.56					.44								.73	8.67
Kerrville ‖	Guadalupe			.60	1.56			.18	.90							1.29	.07						.50				.27					5.37
Knickerbocker	Colorado			1.25					T.						T.	.25	.33	T.								.12	.62				.18	2.75
Kopperl ‖	Brazos	.50		1.20	1.40	T.			T.	T.		T.			T.	T.	T.	.56	T.			.40		T.	.10		.20	T.				4.36
Lagrange	Colorado	.90		.36	.53				.15	.09	.01						.01	.01	.03		.30	T.		.58		.80	.13	T.			.98	4.88
Lamesa	do		.91						.03													.05	.61		.32	.75	.13					2.80
Lampasas ‖	Brazos	.18		.60	.90				.21					.06			1.36	.72	.02			.18			1.07	T.	.65	T.				5.95
La Parra	Coast					.50																.60		1.56		1.25					.36	4.27
Laureles Ranch	do			.89																				1.75		1.64						4.28
Liberty ‖	Trinity	.79			1.30					.15		.14				T.			1.00	.45	T.	.20				.85	1.50	.14			T.	6.52
Llano ‖	Colorado	.02	T.	.08	.05				1.00	.01		T.			T.	.05	1.09	T.	.01					1.03	.01		.06			T.	3.41
Llano Grande ‖	Rio Grande									T.	T.						T.						.25		T.		1.25	T.				1.50
Long Lake ‖	Trinity	.78			1.80				1.50	.66		.78					1.16	.50	.19			.50			1.28		.14				.60	9.89
Longview ‖	Sabine	.05			1.69	.07			1.46		.75	.78				.08	.20	.05	1.01	1.34								.48				7.96
Lubbock	Brazos			.21	.02				.09	T.				.03									.11		1.81	.09	T.					2.36
Lufkin	Neches	2.00		.78	.01				2.78			.60				.19	.17	2.00	.55		.45			.50		.07	1.55				.30	11.95
Luling ‖	Guadalupe	.21			.88				.12	.10		.10							.12	.08	.50	.47	.02		.70		1.48					4.78

TABLE 2.—*Daily precipitation for April, 1911. District No. 8*—Continued.

Stations.	Watershed.	Day of month.																													
		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	Total.
Texas—Continued.																																
McGregor	Brazos			1.38	1.00				.25							1.00	1.00									.55					.80	5.98
Marathon	Rio Grande			T.					T.													T.	.35		.60	1.20	T.					2.15
Marble Falls ‖	Colorado	.20		1.44	1.50				.85							.20	2.38					.20		1.77	T.	.05	.99					9.58
Marfa	Rio Grande																								1.70							1.70
Marshall	Sabine	.05		1.55	1.13	.04			.97			1.50				.53		.62	.50	1.48							1.18	.51			.47	10.53
Matagorda	Coast	.73			1.23												.42						.10	1.23		1.40	1.60					6.71
Mexia ‖	Brazos	.68		.10	1.65	.02			1.30	.27		.11				T.	.50	.85	.24	.18		.04		.01	1.65		.14	.04				7.78
Midland	Colorado			.43					.15								.11									1.62	.50				.86	3.67
Mission ‖	Rio Grande									T.	.07						1.04	.02					.59			.48	.62					2.82
Mont Belvieu	Coast	1.32		.33	.39				T.									.80	.31	.02				*	1.92	*	2.04				1.45	8.58
Mountain View	Pecos																															
Mount Blanco	Brazos			.30				.20											T.				T.		1.48	.06	.06					2.10
Nacogdoches ‖	Neches	.52			2.07				.50	.95		.67		T.		T.	.18	.78	1.27	T.		T.			.90		1.03	.75				9.62
New Braunfels	Guadalupe			1.67					.25										.07		.33	.06	.65			1.13						.48	4.64
Palestine	Trinity	.20		1.28	.08			T.	1.04	T.	1.14	.02				.61	.25	1.07	.02		.15			1.74	.02	.02	.09	.01			.50	8.24
Panter	Brazos	.79	.41	.29					.07	T.	T.					.43	.10	.12		.19	T.				.10	.05	.04	T.		T.	.75	3.34
Pearsall	Nueces			.85					.40									.10			.01		.39	.05	.04	.36						2.20
Pierce	Colorado	.38		.20	1.28													1.74	.10			.33		1.18		.72	1.40					7.33
Plainview	Brazos			2.00				T.	.17																2.36	.18	.09					4.80
Port Arthur	Coast				.24				1.00	.21	.02													.30			1.62					3.39
Port Lavaca	do	.36		1.43	.48			T.			T.							.25		T.	.43			1.12	T.	1.42	.66					6.15
Post City	Brazos		.47						T.						T.						.18	.28		.23	1.10	.21	.15					2.62
Putnam	do			.85	.57				.25						.09	.05	.11		.07					.54		.37					.61	3.51
Raymondville ‖	Coast										.05						.06						.09		.30	.18	.82					1.50
Ricardo	do			.82							.11						T.		.07			.65		1.01		1.08	.12				.09	3.95
Riverside ‖	Trinity								2.25	.55		T.						.47	.45			1.63			1.20		1.30	.10				7.95
Robert Lee ‖	Colorado			1.03					.13	.42							.01	.08	.05							.10	.17				.70	2.69
Rockland ‖	Neches	.60			.96						.77	.61						.85	.16		1.10		.56		.95		2.50		.32			9.38
Rockport	Coast				1.00						T.							.20						1.00		2.05					1.80	6.05
Rossville	Nueces			1.26					.39	T.							T.	T.	T.	.80				.84	T.	1.09	.07				T.	4.45
Runge	San Antonio			.27																				1.10		1.15						2.52
Sabinal	Nueces			.35	.73				1.05								.23	.10			.96			1.17		.20	.05					4.84
Salado	Brazos	1.28		.84	1.50				.81							.54	.40	.02	.12		.21			.20		.57					1.28	7.77
San Angelo	Colorado		.92	.08	T.				.09	T.					T.	.66	.35									.52	.28				.28	3.08
San Antonio	San Antonio	.07		.98					.23		T.						.02	.03	T.	.28	.68			.49	T.	.60	.04				T.	3.41
San Augustine	Neches	.20		.90	2.00				2.48			.94				.22	T.	1.12	1.05		T.			*	1.30	.05	1.97	.05			.54	12.82
San Juanito	Coast			.04	.56				T.		.07					.10	.24	.04	.02					T.		.94	.16					2.17
San Marcos ‖	Guadalupe	.08			1.48					1.30											.30	.13	.07	1.08			.65					5.09
San Saba	Colorado	.20		1.04	.48				.36	.04					.10	1.08	.47	.09	.03		.33	.50		.36			.62	.03			1.60	7.33
Santa Gertrudes ‖	Coast				.95																			2.00	.93							3.88
Sealy	Brazos	.62		.48	.88				T.	.10	T.	T.				T.	.02	.61	.12		.47		.03	1.22	.07	.28	.94		.02	T.	1.09	6.95
Seymour	do			.75	.15									T.	T.	T.		.11					1.11		T.	.13						2.25
Somerville	do																															
Sonora	Rio Grande																															
Stamford	Brazos			.87		T.			.23	.03							.05						.57			.10					.23	2.08
Sugarland ‖	do																															
Sutherland Springs	San Antonio	.04		.59					.04		.03							.06		.36	1.50	.25		.55		2.40					T.	5.82
Taylor	Brazos	.05		1.23					.79		.02	.01				.22	T.	.02	T.	.02	.22			.58	.04	.99	T.				1.73	5.92
Temple ‖	do	.14		1.94					.30	.10		.10				.25	.60	1.10	.10			.20		T.			.44	.05				5.32
Theodore	Pecos																					.25	.02		1.45	1.18	1.23					4.13
Thurber	Brazos	.10		.93	.16	.10			.23								.37	.08	.06					.25		.21	.09				.64	3.22
Tilden	Nueces			.90					1.10										.45		.07			.62		.72	.03					3.89
Tivoli ‖	Guadalupe			1.41					.25													.40		.80		1.60					1.15	5.61
Uvalde	Nueces			.75					1.36								.15	.12			T.	T.	.82	T.	.56						.09	3.85
Valley Junction ‖	Brazos	.55			1.30				.50	1.10							.30	1.50	.40					.80			.50				1.60	8.55
Victoria ‖	Guadalupe			1.12					.04												1.75	.06		.65		1.25					3.75	8.62
Waco ‖	Brazos	2.00		.62	1.98				.28	.20	T.						.78	.24	.10	.20					T.	T.	T.	.42				6.82
Waxahachie ‖	Trinity	1.72		.44	.94	.19	T.		.20		.04					.15	.33		.24	1.47		T.		T.	T.		.05	.13			T.	5.90
Weatherford ‖	do			.58	.52	.02			.15	.03	T.					.08	.09	.17	.15	T.				T.			.17	.02				1.98
Wharton ‖	Colorado	.90								.10									.80	.11	.15				1.57		3.15					6.78
Wills Point	Sabine	.82		.52	.40	.14			.28			.85				.38	T.	.75	3.08	1.58				.60			T.	T.	T.			.70	10.10
Zapata	Rio Grande																															

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ 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 3.—*Maximum and minimum temperatures at selected stations, April, 1911. District No. 8, Texas and Rio Grande Valley.*

Date.	Colorado.				New Mexico.																Texas.							
	Garnett.		San Luis.		Agricultural College.		Carlsbad.		Fort Stanton.		Mountain-air.		Rosedale.		Roswell.		Santa Fe.		Santa Rosa.		Abilene.		Big Springs.		Brownsville.		Corpus Christi.	
	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....	68	22	67	22	80	44	83	46	74	31	76	36	67	40	81	43	66	31	82	37	80	47	86	47	83	72	76	71
2....	67	24	65	27	73	52	85	51	75	36	72	44	60	35	83	47	66	39	81	48	83	61	87	63	83	69	75	71
3....	68	28	55	27	69	40	72	49	75	33	64	34	56	28	74	41	55	34	74	43	75	58	76	55	86	74	78	60
4....	57	31	54	32	70	43	81	55	65	42	64	40	57	39	76	45	58	37	71	38	77	52	80	46	91	60	86	60
5....	56	32	50	31	75	43	86	58	72	40	67	39	67	36	86	41	57	36	75	47	81	49	84	52	92	62	92	63
6....	57	27	52	32	75	54	87	65	71	44	65	47	61	44	85	60	58	39	71	54	86	51	90	61	86	68	79	69
7....	56	39	57	29	75	44	85	52	69	48	67	33	60	37	79	47	55	37	70	50	67	47	82	46	83	74	79	74
8....	55	20	51	28	63	46	51	44	62	31	54	30	48	31	57	41	42	33	54	36	55	46	72	45	84	74	78	63
9....	57	21	51	28	68	36	64	46	64	33	50	24	50	30	61	43	50	32	63	35	60	43	63	41	76	61	68	55
10....	58	26	54	32	78	40	85	45	70	37	63	34	65	43	80	43	59	35	72	35	68	52	78	45	82	60	76	68
11....	62	14	58	19	81	35	90	40	75	33	70	30	70	45	85	35	64	31	76	41	84	54	87	48	87	57	84	71
12....	58	30	55	35	78	38	87	50	71	48	69	41	64	44	82	48	59	35	75	53	90	63	89	59	86	64	79	73
13....	52	15	49	18	77	39	88	52	68	44	68	28	64	35	77	41	55	27	67	35	74	54	78	57	87	64	79	74
14....	54	12	54	17	75	38	83	54	59	37	60	30	56	36	64	46	52	32	60	39	56	45	68	49	87	64	79	73
15....	56	12	54	14	62	50	69	46	49	31	52	27	55	32	60	39	48	30	61	35	54	45	57	43	88	64	76	61
16....	61	22	62	18	61	47	59	49	58	24	55	24	52	30	59	34	59	30	65	28	50	46	54	45	84	57	68	56
17....	59	34	54	35	75	34	82	45	67	25	59	32	63	33	80	37	54	34	75	30	57	46	61	42	82	60	72	63
18....	59	27	54	36	80	36	81	44	68	39	57	32	64	36	74	40	57	30	68	41	76	55	82	52	83	65	80	72
19....	67	20	63	25	81	35	87	39	74	26	64	34	68	33	86	34	65	33	82	31	84	48	88	41	85	73	85	73
20....	65	25	63	28	80	41	88	47	72	36	64	41	69	41	86	43	66	39	78	43	84	57	88	52	87	72	78	74
21....	67	25	66	35	84	40	89	53	77	37	68	38	73	40	84	47	68	45	83	49	82	52	85	55	89	71	82	72
22....	70	24	67	26	85	38	91	58	77	36	68	38	71	43	87	54	68	40	83	46	86	58	92	58	87	64	78	69
23....	67	23	69	25	83	35	92	45	77	34	67	37	70	43	87	42	68	39	77	39	76	59	88	57	80	66	76	64
24....	59	28	61	32	70	43	77	55	69	40	66	41	58	39	62	51	54	42	56	48	63	50	75	51	80	62	69	66
25....	63	28	61	29	63	45	65	42	52	38	51	34	54	38	63	50	57	40	56	45	58	54	68	49	71	65	66	62
26....	67	28	66	28	74	41	69	51	62	38	59	36	62	34	70	50	65	33	67	47	68	55	68	53	79	61	69	62
27....	68	40	60	39	81	51	78	53	70	39	60	44	66	40	75	51	64	41	75	50	76	51	76	49	81	61	72	59
28....	66	33	62	36	77	48	84	53	67	42	65	40	66	44	80	57	64	40	77	47	80	61	82	59	85	67	79	71
29....	59	30	55	36	77	50	86	57	66	38	68	37	63	42	71	54	56	35	74	47	78	69	86	65	85	70	79	75
30....	61	22	57	21	75	38	82	51	68	36	66	30	64	34	76	45	59	31	73	39	77	56	80	52	80	72	81	71
Mns..	61.3	25.4	58.2	28.0	74.8	42.1	80.2	49.8	68.1	36.5	63.3	35.2	62.1	37.5	76.0	45.0	58.9	35.3	71.4	41.9	72.8	52.8	78.3	51.2	84.0	65.8	77.3	67.2

Date.	Texas.																											
	Del Rio.		El Paso.		Fort McIntosh.		Fort Stockton.		Fort Worth.		Galveston.		Hallettsville.		Houston.		Lufkin.		Palestine.		Plainview.		San Antonio.		Seymour.		Taylor.	
	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....	84	66	80	53	91	72	87	47	80	54	72	61	82	62	78	60	80	58	77	60	78	36	82	60	81	40	80	57
2....	83	70	74	49	89	70	88	56	82	63	73	68	84	65	78	65	82	60	80	60	81	53	81	64	87	67	80	60
3....	77	52	60	43	95	68	75	46	72	58	76	61	69	64	79	59	82	60	69	57	74	41	72	55	80	64	71	55
4....	87	48	69	50	92	56	77	52	71	54	76	61	80	57	81	59	81	57	78	56	62	39	82	54	80	62	80	56
5....	91	48	78	50	100	58	90	50	76	48	79	66	86	60	85	64	84	56	79	51	79	41	89	56	89	.....	83	55
6....	95	61	76	55	105	67	90	56	90	55	78	70	86	61	85	63	89	63	87	65	71	49	92	64	85	.....	88	60
7....	81	66	79	55	102	68	82	60	65	51	78	72	86	71	86	71	84	68	71	60	79	34	83	71	77	.....	72	63
8....	73	60	63	47	90	61	77	45	61	49	79	57	71	61	80	51	80	49	66	50	61	34	71	56	70	40	67	51
9....	66	56	70	44	90	55	67	45	65	42	69	53	71	52	72	50	67	45	64	47	60	39	67	53	69	45	65	47
10....	75	56	79	51	80	56	91	44	66	54	72	61	70	57	71	56	71	52	66	51	80	40	66	60	72	55	67	56
11....	92	63	82	53	91	68	92	49	83	60	78	71	85	68	86	68	86	59	84	59	82	36	86	61	88	41	86	61
12....	89	66	79	57	98	72	94	53	84	66	78	72	86	72	83	68	87	67	85	67	83	45	86	70	95	65	84	69
13....	93	69	80	52	99	72	92	52	81	59	78	73	85	72	83	73	86	70	85	69	65	41	84	68	85	55	84	68
14....	78	57	77	56	99	73	80	57	59	47	77	73	89	72	86	70	80	50	84	58	62	41	88	62	85	40	85	54
15....	57	47	57	48	95	58	57	42	57	46	77	57	72	56	75	56	81	50	58	49	58	32	62	50	68	46	54	48
16....	53	47	57	47	62	53	50	41	59	50	66	56	67	52	67	54	60	50	58	49	62	34	57	49	78	43	56	49
17....	63	49	75	40	74	57	77	45	56	48	73	62	72	57	70	55	57	50	59	49	68	43	70	50	58	40	66	49
18....	83	56	78	51	97	62	87	52	78	56	78	72	84	66	79	68	75	55	72	59	74	44	84	64	83	45	80	65
19....	83	55	80	44	97	66	87	46	84	58	78	73	87	70	84	70	86	66	84	65	84	38	85	62	90	42	84	61
20....	87	60	80	52	89	70	89	54	79	61	80	69	83	66	77	68	81	64	71	63	83	44	80	60	87	51	76	65
21....	86	67	84	53	94	69	86	62	84	56	78	69	81	66	83	65	85	60	82	57	82	50	80	62	88	45	79	62
22....	88	63	85	52	93	66	90	58	87	62	80	70	86	65	86	64	89	58	85	65	90	46	84	61	91	52	85	60
23....	80	62	82	53	89	66	90	55	73	55	77	63	72	63	78	62	85	62	75	56	78	44	75	61	82	45	72	62
24....	71	60	68	50	85	63	79	57	66	48	73	62	69	61	71	60	78	62	64	49	70	45	65	59	80	52	64	54
25....	68	58	63	46	74	61	70	51	62	55	70	62	68	59	69	58	68	62	65	52	51	47	61	57	71	53	59	54
26....	77	60	73	49	76	61	70	52	63	53	65	57	70	60	67	56	68	52	59	54	64	47	66	57	80	41	60	56
27....	79	60	79	57	80	59	78	51	71	51	71	58	75	62	74	58	85	54	69	53	69	46	76	53	84	54	70	56
28....	84	66	79	60	92	67	83	55	79	54	77	67	85	60	81	62	88	69	81	56	75	54	83	63	83	52	80	57
29....	87	72	79	59	94	74	87	63	79	69	78	72	86	72	84	72	79	54	84	70	80	59	84	70	80	62	82	70
30....	89	62	74	50	94	73	84	54	77	60	82	72	86	69	85	69	80	63	73	63	77	46	79	66	80	50	74	63
Mean	80.0	59.4	74.6	50.9	90.2	64.7	81.5	51.7	73.0	54.7	75.5	65.3	79.1	63.3	78.8	62.5	79.5	58.2	73.8	57.3	72.7	42.9	77.3	60.0	80.9	51.8[c]	74.4	58.1

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