

# CLIMATOLOGICAL DATA.

## NEVADA SECTION.

HENRY F. ALPS, Meteorologist.

VOL. XXXVII. RENO, NEVADA, JULY, 1922. No. 7.

### GENERAL SUMMARY.

The mean temperature and the average precipitation for the entire State were above normal. The greater part of Nevada was considerably warmer than normal, although there was a slight deficiency in temperature in the extreme north portion. The monthly mean temperature at Reno was 5.8° above normal. The temperature reached or exceeded 100° at 25 stations during the month, and above 90° was recorded at all stations. A moderately cool period occurred from the 19th to the close of the month, except in the extreme west portion where it ended on the 27th. The precipitation was above normal in northern counties and in the extreme west, and less than normal in the central and south portions. Only five stations recorded amounts in excess of one inch.

The warm weather favored the rapid development of vegetation and no damage to crops by high temperatures was apparent at the close of the month. The change to normal temperature came before the critical stage in the development of potatoes was reached, and the crop seemed to suffer no deterioration from the excessive temperature. The warm weather benefited cantaloupe development in the Newlands Project. The first cutting of alfalfa was completed during the first half of the month, and the harvesting of wild hay had started at the close of the month. Wheat, oats, and barley, were maturing well in irrigated districts. Dry-land crops were in need of more rain. Ranges were in fair to good condition. The supply of water was sufficient for irrigation and hydroelectric power.

### TEMPERATURE.

The monthly mean for the State, as shown by the records of 34 stations, was 74.1°. The mean for the 23 stations having ten or more years' record was 1.1° above normal. The highest recorded was 116°, at Logandale on the 5th; the lowest was 33°, at Rye Patch on the 26th. The greatest daily range was 62°, at Logandale on the 6th. The highest monthly mean was 87.6°, at Logandale; the lowest was 64.6°, at Lamoille.

### PRECIPITATION.

The average for 46 stations reporting was 0.54 inch. For the 33 stations having ten or more years' record, the mean was 0.19 inch above the normal. The average amount at 5 stations in the Columbia Basin was 0.69 inch; at 16 stations in the Humboldt Basin, 0.64 inch; at 1 station in the Truckee Basin, 0.33 inch; at 3 stations in the Carson Basin, 0.26 inch; at 5 stations in the Walker Basin, 0.41 inch; at 2 stations in the Colorado Basin, 0.62 inch; at 14 stations in the minor basins, 0.47 inch. The greatest monthly fall was 1.80 inches

at Lamoille. The least was 0.00 at Arthur. The average number of days with precipitation was 3.

### PRESSURE, HUMIDITY, AND WIND DATA.

Stations.	Barometric pressure (sea level).			Mean relative humidity.		Wind.			
	Mean.	Highest.	Lowest.	5 a. m.	5 p. m.	Average hourly velocity.	Max. velocity.		
						Miles per hour.	Dirac.	Date.	
Reno.....	29.96	30.16	29.72	53	21	6.7	42	sw.	4
Winnemucca.....	29.98	30.15	29.71	52	19	6.0	38	nw.	4
Tonopah.....	29.96	30.16	29.62	35	20	7.5	39	nw.	5

### SUNSHINE AND CLOUDINESS.

At Reno, 88 per cent of the possible sunshine was recorded; at Winnemucca, 90 per cent; at Tonopah, 82 per cent. For the State, the average number of clear days was 20; partly cloudy, 7; cloudy, 4.

### MISCELLANEOUS PHENOMENA.

(Dates of).

Hail.—16, 19, 20.

Thunderstorms.—4, 5, 15, 16, 17, 18, 19, 20, 21, 22, 29, 30, 31.

Brisk winds.—4, 5, 7, 8, 9, 13, 17, 30.

Solar Halos.—8, 26.

### COMPARATIVE DATA FOR JULY.

Year.	Temperature.			Average precipi- tation.	Average snowfall.	Number of days.				Prevailing wind.
	Mean.	Highest.	Lowest.			With precipi- tation.	Clear.	Partly cloudy.	Cloudy.	
1889.....	76.1	119	36	0.17	.....	1	29	1	1	S.
1890.....	74.0	118	28	0.15	0	1	22	1	2	SW.
1891.....	70.4	102	26	0.53	0	3	17	8	6	W.
1892.....	70.6	115	30	0.67	0	1	23	5	3	SW.
1893.....	70.3	110	24	0.40	0	2	26	4	1	SW.
1894.....	71.7	108	32	0.75	0	5	17	9	5	W.
1895.....	70.2	112	28	0.05	0	1	25	4	2	W.
1896.....	72.7	112	33	0.79	0	2	14	9	8	W.
1897.....	69.4	116	25	0.28	0	1	20	7	4	SW.
1898.....	73.5	114	30	0.12	0	1	23	6	2	W.
1899.....	72.6	106	34	0.14	0	2	22	5	4	W.
1900.....	70.9	113	33	0.37	0	1	23	4	4	W.
1901.....	70.8	109	31	0.31	0	2	21	6	4	SW.
1902.....	67.9	116	25	0.44	0.5	2	21	5	5	SW.
1903.....	65.4	111	26	0.01	0	1	27	3	1	SW.
1904.....	68.7	110	30	0.51	0	3	19	8	4	SW.
1905.....	72.1	109	31	0.03	0	1	24	5	2	SW.
1906.....	74.7	114	32	0.68	0	4	17	9	5	W.
1907.....	69.2	113	27	0.06	0	1	22	6	3	SW.
1908.....	74.3	116	32	0.42	0	3	18	10	3	W.
1909.....	69.5	112	23	0.14	0	2	23	6	2	SW.
1910.....	72.9	110	28	0.65	0	3	18	8	5	W.
1911.....	70.9	109	30	0.31	0	3	17	10	4	W.
1912.....	68.6	113	25	0.67	0	4	17	7	7	W.
1913.....	69.1	113	18	1.30	0	6	16	9	6	W.
1914.....	72.4	118	32	0.52	0	3	16	10	5	W.
1915.....	70.8	110	31	0.38	0	2	19	8	4	W.
1916.....	71.0	113	30	0.31	0	2	25	4	2	SW.
1917.....	74.5	111	31	0.46	0	2	21	7	3	SW.
1918.....	72.9	112	21	0.33	0	2	21	7	3	SW.
1919.....	75.2	113	35	0.28	0	1	23	5	1	SW.
1920.....	72.7	113	33	0.19	0	1	24	5	3	W.
1921.....	74.2	114	27	0.19	0	1	24	4	3	W.
1922.....	74.1	116	33	0.54	0	3	20	7	4	W.
Entire period.....	71.6	119	18	0.39	T.	2	21	6	4	W.

Climatological Data for July, 1922.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahr.						Precipitation, in inches.				Number of days.			Prevailing direction of the wind.	Observers.			
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Length of record, years.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	With precipitation (0.01 inch or more).			Clear.	Partly cloudy.	Cloudy.
<i>Columbia Basin.</i>																					
Gold Creek (near).....	Elko.....	6,600							9	0.72		0.65	0	3	19	10	2	s.	U. S. Forest Service		
Mahoney Ran. Sta.**.....	do.....	6,200							5	0.95		0.95	0	1	24	4	3	e.	Do.		
Owyhee.....	do.....	5,400	10	67.4 <sup>d</sup>	-0.2	95 <sup>a</sup>	5	41 <sup>d</sup>	10	0.91		0.70	0	4	1	19	2	nw.	E. A. Schwab.		
San Jacinto.....	do.....	5,200	18	65.7		95	13	36	12	51	10	1.00	0	1	19	2	10	w.	Utah Construction Co.		
Tuscarora (near).....	do.....								12	0.69		0.39	0	3	15	10	6	w.	D. B. Williams.		
<i>Humboldt Basin.</i>																					
Arthur.....	Elko.....	6,500							18	0.00		0.00	0	0	20	10	1		Isaac Woodhouse.		
Austin.....	Lander.....	6,594	31	70.5 <sup>a</sup>	+1.4	105 <sup>a</sup>	4	49 <sup>a</sup>	+10	48 <sup>a</sup>	33	1.47	0	4	4	4	3	nw.	Forest Service.		
Battle Mountain.....	do.....	4,513	44	75.0	-0.0	102	+3	44	25	53	52	1.10	0	1	24	4	3		Southern Pacific Co.		
Beowawe.....	Eureka.....	4,656	43	69.6	-5.2	99	+13	42	+10	51	53	0.98	0	1	21	6	4	nw.	Do.		
Clover Valley**.....	Elko.....	6,000	22	65.6 <sup>a</sup>	-1.4	94 <sup>a</sup>	13	39 <sup>a</sup>	9	60 <sup>a</sup>	28	0.45	0	1	15	9	7		Mrs. J. H. Overton.		
Elko.....	do.....	5,063	44	70.8	+0.4	103	+13	39	27	55	52	0.25	0	1	22	4	5	sw.	Western Pacific Co.		
Eureka.....	Eureka.....	6,500	22	71.8	+1.6	98	14	48	21	41	22	0.55	0	5	8	10	13	w.	Lionel Brooke.		
Golonada.....	Humboldt.....	4,592	31	80.4	+6.0	103	4	48	22	43	45	1.0	0	0	24	2	0	w.	Southern Pacific Co.		
Hylton**.....	Elko.....	7,081							13	0.62		0.22	0	4	26	5	0		Chas. Toyne, sr.		
Imlay.....	Pershing.....	4,209	30	73.1	-2.4	103	4	43	7	54	30	0.40	0	3	23	3	5	nw.	Southern Pacific Co.		
Lamoille.....	Elko.....	6,100	9	64.6		92	+13	44	9	36	19	1.80	0	5	20	11	0	w.	Elko-Lamoille Power Co.		
Lovelock.....	Pershing.....	3,977	26	72.8	-1.8	103	3	43	25	50	26	0.54	0	5	20	0	11	s.	Joe Bush.		
Metropolis.....	Elko.....	5,661	6						9				0						S. M. Woolf.		
Montello.....	do.....	4,877	34	72.3	+0.2	101	+14	43	7	53	46	0.68	0	5	13	14	4	w.	Southern Pacific Co.		
North Fork.....	do.....	6,500							13	1.55		1.40	0	2	15	8	8	w.	Roy C. Pratt.		
Paradise Valley.....	Humboldt.....	4,500	4						13	0.50		0.45	0	3					U. S. Forest Service.		
Winnemucca.....	do.....	4,344	45	71.4	-0.2	99	4	44	27	47	53	0.36	0	4	19	6	6	sw.	U. S. Weather Bureau.		
<i>Truckee Basin.</i>																					
Reno.....	Washoe.....	4,532	35	73.3	+5.8	100	3	44	24	43	35	0.33	0	2	19	10	2	w.	U. S. Weather Bureau.		
Tahoe, Cal.....	do.....	6,280	13	62.6	+2.2	90	16	34	24	45	13	0.31	0	3	22	7	2	w.	Arthur L. Smith.		
<i>Carson Basin.</i>																					
Fallon.....	Churchill.....	3,965	17	75.2	+1.8	105	4	43	24	50	24	0.10	0	2	22	5	4	sw.	U.S. Experiment Station.		
Lahontan**.....	do.....	4,200	15	80.6	+3.2	101	+4	59	+20	34	15	0.15	0	1	19	9	3	ne.	U.S. Reclam't'n Service.		
Minden.....	Douglas.....	4,830	31	72.0 <sup>a</sup>	+4.5	105 <sup>a</sup>	4	40 <sup>b</sup>	24	52 <sup>1</sup>	31	0.51	0	2				w.	Forest Service.		
Markleville, Cal.....	do.....	5,525							13	0.83		0.33	0	4	21	8	2	s.	Mrs. Mary Thornburg.		
<i>Walker Basin.</i>																					
Mina.....	Mineral.....	4,350	27	77.7	-0.1	104	14	51	22	45	28	T.	-0.34	T.	0	0	12	9	10	n.	Southern Pacific Co.
Schurz.....	do.....	4,617	3	72.7		101	3	40	24	48	3	0.27	0	5	22	8	1	w.	Susan R. Kronquist.		
Smith.....	Lyon.....	4,800							14	0.27		0.25	0	2	22	5	4	sw.	C. M. Carter.		
Thorne.....	Mineral.....	4,200	25			105	15		29	0.98		0.70	0	6	22	6	3	nw.	Southern Pacific Co.		
Yerington.....	Lyon.....	4,375	20			102			23	0.55		0.44	0	3					W. H. Churchyard.		
Shields Ranch, Cal.**.....	do.....	5,300							13	1.32		0.45	0	6	23	4	4		Bruce H. Chichester.		
<i>Colorado Basin.</i>																					
Las Vegas.....	Clark.....	2,033	19	85.9	+2.9	112	16	58	25	47	19	0.20	0	3	19	6	6	s.	C. P. Squires.		
Logandale.....	do.....	1,355	23	87.6	+0.6	116	5	50	6	62	23	1.03	0	3	25	4	2		Bert Mills.		
<i>Minor Basins.</i>																					
Alamo.....	Lincoln.....	3,880	1	79.0		110	15	48	+23	54	1	1.17	0	3	22	7	2	s.	Gardner L. Chism.		
Beatty.....	Nye.....	3,309	8						8	0.12		0.12	0	1					E. W. Shirk.		
Gerlach.....	Washoe.....	3,931	10						10				0						Western Pacific Co.		
Goldfield.....	Esmeralda.....	5,700	17	73.0	-0.7	100	16	43	+1	49	17		0						Fred Inman.		
Jungo.....	Humboldt.....	4,165							8	0.28		0.28	0	1					Western Pacific Co.		
McGill.....	White Pine.....	6,338	31	73.0	+3.6	100	+4	48	+21	45	31	0.58	0	5	17	10	4	n.	W. J. Hendry.		
Millet.....	Nye.....	5,040	15	70.4	+1.8	98	4	41	24	51	15	0.41	0	2	12	11	8	sw.	Ida G. Jones.		
Pahrump.....	do.....	2,668	3	85.0		113	16	54	26	49	6	0.39	0	1	21	6	4	e.	Oaks Realty Company.		
Quinn Riv. Ranch**.....	Humboldt.....	4,850	20						43 <sup>b</sup>	+7	21	0.62	+0.43	0	2				F. M. Payne.		
Rebel Creek**.....	do.....	4,300	11	69.6		101	+3	40	+1	54	11	0.02	-0.26	0	2	22	6	3	sw.	I. J. Studebaker.	
Rye Patch.....	Washoe.....	4,725		65.8		98	3	33	26	61	6	0.42	0.25	0	2	24	6	1	nw.	Max McCarthy.	
Sand Pass**.....	do.....	4,198	9	78.2		104	+3	42	26	49	9	0.19	0.16	0	2	23	4	4	w.	R. R. Mott.	
Searchlight.....	Clark.....	3,445	9	85.5		107	+4	67	79	31	9	0.95	0.35	0	6	16	8	7	sw.	C. L. Aug. Mahn.	
Sharp.....	Nye.....	6,200	7	72.6		97	+4	48	1	42	7	0.35	0.35	0	1	24	0	7	sw.	Pauline F. Youngs.	
Sulphur.....	Pershing.....	4,044	8	74.8		102	3	48	25	47	8	0.25	0.25	0	1	23	2	6	sw.	Western Pacific Co.	
Tonopah.....	Nye.....	6,090	17	75.5	+2.9	98	15	53	19	29	17	0.84	+0.53	0.83	0	3	17	14	0	w.	U. S. Weather Bureau.
Vya.....	Washoe.....	5,500	2						8				0						L. A. Mariette.		
For the State.....				74.1	+1.1	116	5	33	26	62		0.54	+0.19	1.40	0	3	20	7	4	w.	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete reports are used in determining section or division means.  
 \*\*Post-office addresses of these stations are as follows: Of Alamo, Hiko; of Clover Valley, Wells; of Hylton, Jiggs; of Lahontan, Hazen; of Mahoney Ranger Station, Jar-bridge; of Quinn River Ranch, Amos; of Rebel Creek, Orovida; of Rye Patch, Rye Patch Ranch, via Gerlach; of Sand Pass, Flanigan; of Shields Ranch, Coleville, Cal.  
 Reference letters, <sup>a</sup>, <sup>b</sup>, <sup>c</sup>, appearing in the table indicate number of days missing, for example, <sup>b</sup> represents two days missing, etc.  
 † Also on other dates. †† Received too late to be included in means and summaries.  
 T. Precipitation is less than 0.01 inch rain or melted snow.

Daily Precipitation for July, 1922.

Stations.	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											
<i>Columbia Basin.</i>																																										
Gold Creek (near).....				T.	.05														.65		.02															0.72						
Mahoney Ranger Station [   ].....					.95														.10	.70	.09															0.95						
Owyhee.....					.02														T.																	0.91						
San Jacinto.....																			T.			.20														0.20						
Tuscarora (near).....					T.														.39	.14		.16														0.69						
<i>Humboldt Basin.</i>																																										
Arthur.....																																				0.00						
Austin [   ].....					T.														.05	.17													.22	.03	1.47							
Battle Mountain.....																			.10	T.																0.10						
Beowawe.....																				.98																0.98						
Clover Valley.....					T.														.45	T.			T.													0.45						
Elko.....																			.25																	0.25						
Eureka.....					T.										T.	T.	T.	T.	.11	.33	.08	T.	T.								T.	.02	.01		0.55							
Golconda.....																				T.	T.															T.						
Hylton.....																			.10	.10		.18													.22	0.60						
Fullay.....																			.10	.28													.04		0.42							
Lamoille [   ].....																				.48	.49	.23	.39	.23											1.80							
Lovelock.....						.08													.13	.06	.24	.03														0.54						
Metropolis.....																																										
Montello.....																			.06	.26	.28	.06	.02													0.68						
North Fork.....																			1.40			.15														1.55						
Paradise Valley.....																			T.	.45																0.50						
Winnemucca***.....					T.	.04	.01												T.	.01	.08	.25	T.													0.36						
<i>Truckee Basin.</i>																																										
Reno***.....					T.	T.	T.												T.	.30	T.															.03	0.33					
Tahoe, Cal. [   ].....																				T.	.05	.19															T.	.03	0.31			
<i>Carson Basin.</i>																																										
Fallon [   ].....																																						T.	0.10			
Lahontan [   ].....																				.18																		0.18				
Minden.....																				.35																		.16	0.51			
Markleeville, Cal.....																				.33	.02																	T.	.23	.25	0.83	
<i>Walker Basin.</i>																																										
Mina.....																																							T.			
Schurz.....																				.02	.02	.19	.01															.08	0.27			
Smith.....																				T.	.25	T.																T.	.02	0.27		
Thorne.....																				.05	.06																		.09	0.92		
Yerington.....																				.24	.26	.05																	T.	.03	0.95	
Shields Ranch, Cal.....																			.45	.10	.38	T.																	T.	.17	.07	1.32
<i>Colorado Basin.</i>																																										
Las Vegas.....																				.09	T.																			T.	T.	0.20
Logandale.....																					.50	.05																		T.	T.	1.03
<i>Minor Basins.</i>																																										
Alamo.....																						.55																		.02	1.17	
Beatty.....																							.12																		0.12	
Gerlach.....																																										
Goldfield.....																																										
Jungo.....																																										
McGill.....																																										
Millett.....																																										
Pahrump [   ].....																																										
Quinn River Ranch.....																																										
Rebel Creek.....																																										
Rye Patch.....																																										
Sand Pass.....																																										
Searchlight.....																																										
Sharp.....																																										
Sulphur.....																																										
Tonopah***.....																																										
Vya.....																																										

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for the 24 hours ending at the time of observation. \*\*\* Regular Weather Bureau stations; precipitation is for the 24-hour period, midnight to midnight. T. Trace, or less than 0.01 inch. [|||] Precipitation measured in the morning; amount then recorded is for the preceding 24 hours. \* Precipitation included in next following measurement. † Separate dates of falls not recorded.

Daily Evaporation (inches) and Wind Movement (miles) for July, 1922.

(See temperature and precipitation data in climatological tables, pages 34 to 36.)

Stations.	Data.	Day of month.																															Monthly.		
		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			
Lamoille*.....	Evaporation.....	223	347	333	355	405	279	331	...	...	209	477	376	249	478	420	385	308	377	300	066	490	227	008	317	325	300	...	...	...	353	199	204	9	577
	Wind movement.....	61	52	72	62	46	52	68	64	108	66	76	66	63	60	35	60	41	37	43	53	36	40	52	58	64	45	46	21	33	28	48	1	656	
Pahrump*.....	Evaporation.....	362	480	193	727	336	476	434	456	398	412	557	179	289	545	243	526	275	377	289	230	269	454	417	616	395	399	264	188	429	237	285	11	736	
	Wind movement.....	...	14	16	12	21	34	13	48	39	31	11	22	7	11	11	9	14	60	83	10	7	40	36	17	14	27	27	13	10	9	...	...	...	...
Tahoe, Cal. ** †.....	Evaporation.....	175	175	160	185	140	145	170	165	190	190	170	165	170	135	195	180	175	185	175	155	230	245	205	145	185	190	135	175	150	175	095	5	330	
	Wind movement.....	23	46	46	25	51	23	23	32	48	41	54	54	31	28	33	49	47	63	67	55	48													

Daily Temperatures for July, 1922.

Table with columns for Stations, 1-31, and Mean. Rows are grouped by basin: Columbia Basin (Owyhee, San Jacinto), Humboldt Basin (Austin, Battle Mountain, Beowawe, Clover Valley, Elko, Eureka, Golconda, Inlay, Lamolles, Lovelock, Montello, Winnemucca), Truckee Basin (Reno, Tahoe, Cal. §§), Carson Basin (Fallon, Lahontan §§, Minden), Walker Basin (Mina, Schurz, Thorne, Yerington), Colorado Basin (Las Vegas, Logandale), and Minor Basins (Alamo, Beatty, Gerlach, Goldfield, McGill, Millett, Pahump §§, Quinn River Ranch, Rebel Creek, Rye Patch, Sand Pass, Searchlight, Sharp, Sulphur, Tonopah). Each station entry includes maximum and minimum temperature values for each day.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.