COSTA RICAN CLIMATOLOGICAL DATA.

Communicated by Mr. H. PITTIER, Director, Physico-Geographic Institute.

TABLE 1.—*Hourly observations at the Observatory, San José de Costa Rica, during January, 1904.*

Hours.	Pressure. Observed, 1904.	Pressure. Normal, 1889-1903.	Temperature. Observed, 1904.	Temperature. Normal, 1889-1903.	Relative humidity. Observed, 1904.	Relative humidity. Normal, 1889-1903.	Rainfall. Observed, 1904.	Rainfall. Normal, 1889-1903.	Rainfall. Duration, 1904.
	Inches.	*Inches.*	° *F.*	° *F.*	%	%	*Ins.*	*Ins.*	*Hrs.*
1 a. m	26.16	26.15	61.2	61.5	85	84	.....	0.01	.....
2 a. m	26.14	26.13	60.9	61.1	85	84	.....	.....	.....
3 a. m	26.13	26.11	60.3	60.7	86	86	.....	T.	.....
4 a. m	26.12	26.11	59.9	60.4	86	85	T.	0.01	0.67
5 a. m	26.13	26.12	59.5	60.3	86	86	0.01	0.01	0.67
6 a. m	26.14	26.13	59.0	59.3	88	86	.....	0.01	.....
7 a. m	26.15	26.14	59.2	59.4	85	86	.....	0.01	.....
8 a. m	26.16	26.16	61.7	61.9	80	80	.....	0.01	.....
9 a. m	26.18	26.17	66.1	66.6	68	72	0.02	0.01	0.67
10 a. m	26.18	26.17	70.2	70.0	64	67	0.14	.....	1.00
11 a. m	26.17	26.17	72.1	72.3	59	63	0.09	.....	1.00
Noon	26.16	26.15	73.9	73.8	57	61	0.17	T.	1.00
1 p. m	26.14	26.13	75.2	74.8	58	60	0.10	0.02	1.00
2 p. m	26.12	26.11	74.9	74.8	57	60	0.03	0.01	1.00
3 p. m	26.10	26.09	74.8	74.1	57	62	0.28	0.02	1.67
4 p. m	26.09	26.08	73.2	72.4	64	65	0.37	0.07	1.17
5 p. m	26.10	26.09	70.3	70.2	67	69	0.96	0.09	1.50
6 p. m	26.10	26.10	67.4	67.5	74	75	.....	0.03	.....
7 p. m	26.12	26.11	65.3	65.2	80	79	0.03	0.02	0.33
8 p. m	26.14	26.13	64.0	64.2	82	82	0.10	0.04	0.48
9 p. m	26.16	26.14	63.3	63.7	83	82	.....	T.	.....
10 p. m	26.17	26.16	62.6	63.0	84	82	0.03	0.02	0.50
11 p. m	26.17	26.16	62.0	62.5	85	84	0.13	0.01	1.83
Midnight	26.17	26.16	61.6	61.9	85	84	0.01	0.01	0.83
Mean	26.14	26.13	65.8	65.9	75	76	.....	.....	.....
Minimum	26.00	25.98	52.3	49.5	39	.....	.....	.....	.....
Maximum	26.23	26.30	81.9	86.5	100	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....	2.47	0.41	15.32

REMARKS.—At San José the barometer is 3,835 feet above sea level. Readings are corrected for gravity, temperature, and instrumental error. The hourly readings for pressure, and wet and dry bulb thermometers, are obtained by means of Richard registering instruments, checked by direct observations every three hours from 7 a. m. to 10 p. m. The thermometers are 5 feet above ground and are corrected for instrumental errors. The total hourly rainfall is as given by Hottinger's self-register, checked once a day. Under maximum, the greatest hourly rainfall for the month is given. The standard rain gage is 5 feet above ground. Since January 1, 1902, observations at San José have been made on seventy-fifth meridian time, which is 0 hours, 36 minutes, 13.3 seconds *in advance* of San José local time. The normals for pressure, temperature, and relative humidity have been adjusted to this time; the normal for rainfall in Table 1 and the sunshine observations and normal in Table 2 refer to local time. At Port Limon the hours of direct observation are 8 a. m., 2 and 8 p. m., San José local time; the barometer is 14 feet above sea level. The means for temperature and relative humidity in Table 4 are obtained from two-hourly readings given by a Richard self-registering thermometer.

TABLE 2.—*San José, January, 1904.*

Time.	Sunshine. Observed, 1904.	Sunshine. Normal, 1889-1903.	Cloudiness. Observed, 1904.	Cloudiness. Normal, 1889-1903.	Temperature of the soil at depth of— 6 inches.	12 inches.	24 inches.	48 inches.	120 inches.
	Hours.	*Hours.*	%	%	° *F.*	° *F.*	° *F.*	° *F.*	° *F.*
7 a. m	10.42	7.67	36	39	67.3	67.8	68.7	68.6	69.6
8 a. m	25.10	22.19	.....	.....	.....	.....	.....	.....	.....
9 a. m	25.27	22.29	.....	.....	.....	.....	.....	.....	.....
10 a. m	24.47	20.70	49	46	67.6	67.7	68.7	69.0	.....
11 a. m	22.45	19.48	.....	.....	.....	.....	.....	.....	.....
Noon	19.75	18.25	.....	.....	.....	.....	.....	.....	.....
1 p. m	19.61	17.75	64	54	68.4	68.0	68.7	68.9	.....
2 p. m	20.29	19.60	.....	.....	.....	.....	.....	.....	.....
3 p. m	19.03	19.05	.....	.....	.....	.....	.....	.....	.....
4 p. m	17.63	17.37	69	58	69.2	68.5	68.7	68.9	.....
5 p. m	13.93	12.78	.....	.....	.....	.....	.....	.....	.....
6 p. m	2.31	2.53	.....	.....	.....	.....	.....	.....	.....
7 p. m	.....	.....	63	55	69.3	68.7	68.8	68.7	.....
8 p. m	.....	.....	.....	.....	.....	.....	.....	.....	.....
9 p. m	.....	.....	.....	.....	.....	.....	.....	.....	.....
10 p. m	.....	.....	63	44	68.8	68.6	68.8	68.7	.....
11 p. m	.....	.....	.....	.....	.....	.....	.....	.....	.....
Midnight	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mean	.....	.....	53	50	68.4	68.3	68.8	68.8	69.6
Total	220.26	199.57	.....	.....	.....	.....	.....	.....	.....

TABLE 3.—*Rainfall at stations in Costa Rica, January, 1904.*

Stations.	Height above sea level.	Observed, 1904. Amount.	Observed, 1904. Number of days.	Averages. Number of years.	Averages. Amount.	Averages. Number of days.
	Feet.	*Inches.*			*Inches.*	
Sipurio (Talamanca)	197	9.65	16	4	13.11	18
Boca Banano	10	4.65	16	8	12.80	19
Port Limon	10	0.67	7	10	14.33	19
Swamp Mouth	10	.....	.....	6	10.87	17
Zent	66	4.96	15	3	15.79	17
Siquirres	197	.....	.....	6	16.06	13
Dos Novillos	400	.....	.....	.....	.....	.....
Guapiles	984	.....	.....	4	12.56	17
Cariblanco (Sarapiqui)	2,740	7.60	21	6	20.55	22
San Carlos	528	7.87	20	6	9.37	17
Las Lomas	873	.....	.....	4	14.57	15
Peralta	1,089	.....	.....	6	9.37	16
Turrialba	2,034	.....	.....	9	8.86	18
Juan Viñas	3,412	.....	.....	8	8.11	12
Santiago	3,609	.....	.....	3	5.67	16
Paraiso	4,383	.....	.....	3	1.46	3
Cachi	3,346	8.11	9	3	7.17	20
Las Concavas	4,386	20.71	18	3	6.30	19
Cartago	4,761	.....	.....	3	3.39	18
Tres Rios	4,265	2.84	6	15	0.98	4
San Francisco Guadalupe	3,894	1.89	7	8	0.67	4
San José	3,806	2.48	8	15	0.55	3
La Verbena	3,740	13.31	11	8	1.26	4
Nuestro Amo	2,595	0.20	2	8	2.48	2
Alajuela	3,117	.....	.....	4	.....	.....
San Isidro Alajuela	4,416	1.30	2	3	.....	.....
Las Cañas	2,559	.....	.....	.....	.....	.....

TABLE 4.—*Observations taken at Port Limon and Zent, January, 1904.*

Stations.	Pressure. Minimum.	Pressure. Maximum.	Pressure. Mean.	Temperature. Minimum.	Temperature. Maximum.	Temperature. Mean.	Relative humidity.
	Inches.	*Inches.*	*Inches.*	° *F.*	° *F.*	° *F.*	%
Port Limon	29.64	29.95	29.77	.....	.....	.....	.....
Zent	.....	.....	.....	67.1	88.5	77.4	86

Stations.	Cloudiness.	Sunshine.	Rainfall. Amount.	Rainfall. Number of days.	Temperature of soil at depth of— 6 inches.	12 inches.	24 inches.
	%	*Hours.*	*Inches.*		° *F.*	° *F.*	° *F.*
Port Limon	.....	.....	0.67	7	.....	.....	.....
Zent	66	172.10	4.96	15	76.6	77.9	77.2

MEXICAN CLIMATOLOGICAL DATA.

By Señor MANUEL E. PASTRANA, Director of the Central Meteorologic-Magnetic Observatory.

January, 1904.

Stations.	Altitude.	Mean barometer.*	Temperature. Max.	Temperature. Min.	Temperature. Mean.	Relative humidity.	Precipitation.	Prevailing direction. Wind.	Prevailing direction. Cloud.
	Feet.	*Inches.*	° *F.*	° *F.*	° *F.*	%	*Ins.*		
Frontera	.....	30.10	88.5	57.2	72.3	.....	0.87	ne, se.	.....
Guadalajara (Obs. del. Est.)	5,186	24.95	75.2	44.6	59.7	56	0.00	nw.	.....
Guanajuato	6,640	.....	.....	.....	.....	.....	.....	.....	.....
Leon (Guanajuato)	5,899	24.31	73.8	32.7	57.2	52	T.	ne, nw.	w.
Mazatlan	25	29.96	75.0	51.1	66.7	74	0.02	nw.	.....
Merida	50	29.92	94.8	45.0	73.6	43	0.00	ne.	.....
Mexico (Obs. Cent.)	7,472	23.12	71.2	45.5	55.8	50	0.00	ne.	sw.
Mexico (E. N. Agric.)	7,442	.....	.....	.....	.....	.....	.....	.....	.....
Monterey (Seminario)	1,626	.....	.....	.....	.....	.....	.....	.....	.....
Morelia (Seminario)	6,401	23.92	72.5	41.0	56.1	53	0.00	s.	.....
Pachuca	7,959	22.54	73.4	45.0	51.4	61	0.00	ne.	.....
Parral	5,676	24.52	71.2	14.7	47.7	.....	0.08	w.	.....
Puebla (Col. Cath.)	7,108	23.35	73.6	37.0	55.0	63	0.00	ne. sw.	.....
Puebla (Col. d Est.)	7,118	23.32	74.8	34.7	53.4	57	0.00	ne.	.....
Queretario	6,070	24.13	76.1	41.0	57.9	45	T.	e.	.....
San Juan, Bautista	.....	29.99	81.3	64.0	73.2	83	2.56	ne.	.....
Vera Cruz	40	29.99	80.6	57.6	70.7	84	1.46	.....	.....
Zacatecas	8,015	22.51	70.2	40.1	53.2	46	0.00	w.	.....
Zapotlan	5,078	.....	.....	.....	.....	.....	.....	.....	.....

*The monthly barometric means are reduced to the international standard of gravity.