

CLIMATOLOGICAL DATA.

RABAU (BOTANIC GARDENS)—LAT. 4° 12' S., LONG. 152° 11' E.; HEIGHT ABOVE M.S.L. 40 FEET.

Month, 1938.	Bar. Cor. to 32° F. M.S.L. and Standard Gravity from 9 a.m. and 3 p.m. readings.	Amounts of Clouds Means of— 9 a.m., 3 p.m., 9 p.m.	Clear Days.	Highest Barometer Reading (Corrected).	Date.	Lowest Barometer Reading (Corrected).	Date.
January	29.757	7.2	8	29.878, 9 a.m.	12th	29.634, 3 p.m.	26th
February	29.758	8.5	6	29.917, 9 a.m.	26th	29.622, 3 p.m.	8th
March	29.756	6.2	11	29.874, 9 a.m.	3rd	29.663, 3 p.m.	24th
April	29.771	5.8	17	29.880, 9 a.m.	28th	29.668, 3 p.m.	4th
May	29.783	4.5	22	29.908, 9 a.m.	20th	29.685, 3 p.m.	2nd
June	29.866	5.5	18	29.914, 9 a.m.	10th	29.694, 3 p.m.	3rd
July	29.807	5.8	24	29.894, 9 a.m.	23rd	29.720, 3 p.m.	15th
August	29.799	4.5	25	29.894, 9 a.m.	8th	29.693, 3 p.m.	22nd
September	29.797	5.0	24	29.896, 9 a.m.	12th	29.672, 3 p.m.	19th
October	29.825	4.8	21	29.920, 9 a.m.	12th	29.681, 3 p.m.	28th
November	29.766	6.5	12	29.898, 9 p.m.	12th	29.657, 3 p.m.	6th
December	29.728	7.0	14	29.845, 9 a.m.	2nd	29.621, 3 p.m.	28th
Total	357.413	71.3	202	358.718	..	356.010	
Average	29.784	5.9	16.8	29.893	..	29.667	
Extremes	29.866 June 29.728 December	8.5 February	25 August 6 February	29.920	12.10.38	29.621	28.12.38

CLIMATOLOGICAL DATA—continued.

HUMIDITY AND RAINFALL.

Month, 1938.	Humidity.			Rainfall. Monthly. 1938.	Average Rainfall Since 1914.	Greatest Monthly Rainfall.	Year.	Least Monthly Rainfall.	Year.	Wet Days, Monthly, 1938.	Wet Days, Average Since 1914.	Greatest Fall in 24 hours.	
	Mean, 9 a.m.	Mean, 3 p.m.	Mean, Monthly.									1938.	Date.
January	79	79	79	12.10	14.32	37.74	1916	4.77	1918	23	21.0	3.01	16th
February	83	83	83	11.33	10.59	23.54	1923	3.38	1921	22	12.7	2.98	8th
March	76	65	70.5	5.96	9.53	22.23	1919	0.00	1915	20	18.8	0.90	29th
April	76	69	72.5	7.17	9.66	18.57	1925	0.93	1937	13	17.9	1.45	8th
May	76	66	71	4.02	5.07	11.27	1930	0.74	1932	9	13.2	1.47	27th
June	79	69	74	3.22	3.42	7.78	1923	0.79	1914	12	12.5	1.21	27th
July	79	65	72	1.25	5.55	18.00	1930	0.09	1914	7	14.6	0.28	10th
August	71	56	63.5	1.36	4.33	12.45	1937	0.36	1924	6	14.7	0.60	19th
September	68	56	62	2.20	3.67	7.15	1921	0.32	1914	6	12.5	0.91	5th
October	72	62	67	6.70	5.21	11.86	1928	0.62	1914	10	12.5	2.66	9th
November	75	65	70	5.34	6.41	14.23	1912	1.73	1933	18	15.5	1.08	30th
December	79	72	75.5	11.87	10.32	16.22	1919	3.66	1933	17	18.2	1.99	30th
Total	913	807	860.0	72.52	88.08	..	..	..	..	163	184.1	18.54	..
Average	76.1	67.2	71.7	6.04	7.34	..	..	..	..	13.6	15.3	1.54	..
Extremes	83 Feb.	56 Aug., Sept.	83 Feb., 62 Sept.	12.10 Jan., 1.25 July	14.32 Jan., 3.42 June	37.74 Jan.	1916	0.00 March	1915	23 Jan., 6 Aug., 6 Sept.	21.0 Jan.	3.01	16.1.38

CLIMATOLOGICAL DATA—continued.

TEMPERATURE.

Month, 1938.	Mean.		Monthly Average, 1938.	Highest Maximum.	Date.	Lowest Minimum.	Date.	Lowest on Grass.	Date.
	Maximum.	Minimum.							
January	89.3	74.5	81.9	93.5	22nd	72.0	16th	70.0	16th
February	87.3	75.9	81.1	92.1	1st	73.0	27th	72.0	2nd
March	90.8	73.9	82.3	97.0	16th	72.0	30th	69.0	31st
April	90.1	74.1	82.1	92.5	15th, 17th	72.0	10th	70.0	10th
May	90.9	73.4	82.1	94.1	6th	71.0	4th	67.8	24th
June	89.7	73.3	81.5	93.0	6th	71.8	28th	69.0	28th
July	89.8	72.8	81.3	93.5	31st	70.3	3rd	67.7	23rd
August	92.3	73.0	82.6	95.3	29th	70.9	26th	68.0	26th
September	92.7	73.2	82.9	97.0	28th	70.9	12th	67.0	27th
October	91.6	73.5	82.5	96.5	1st	69.8	26th	64.6	26th
November	90.7	73.8	82.2	94.5	6th	70.2	29th	66.4	4th
December	90.0	74.2	82.1	93.2	23rd	72.2	14th	71.0	6th, 16th, 27th
Total	1085.2	884.7	984.6	..	..	..	..	..	..
Average	90.4	73.7	82.05	..	..	..	..	..	..
Extremes	92.7 Sept.	72.8 July	82.9 Sept. 81.1 Feb.	97.0	16.3.38 28.9.38	69.8	26.10.38	64.6	26.10.38

CLIMATOLOGICAL DATA—continued.

STANDARD TIME OF SUNRISE AND SUNSET AT RABAU, 1939.

Date.	Sunrise.	Sunset.	Date.	Sunrise.	Sunset.
	h. m.	h. m.		h. m.	h. m.
January 6	5 46	6 7	July 7	5 58	5 52
13	5 49	6 10	14	5 59	5 53
20	5 53	6 12	21	6 0	5 55
27	5 54	6 12	28	6 0	5 55
February 3	5 56	6 13	August 4	5 58	5 55
10	5 58	6 13	11	5 58	5 55
17	5 58	6 12	18	5 56	5 55
24	5 58	6 10	25	5 53	5 53
March 3	5 58	6 8	September 1.. ..	5 51	5 51
10	5 57	6 6	8.. ..	5 47	5 50
17	5 57	6 3	15.. ..	5 44	5 49
24	5 54	6 1	22.. ..	5 40	5 47
31	5 53	5 57	29.. ..	5 38	5 46
April 7	5 52	5 54	October 6	5 35	5 44
14	5 51	5 52	13	5 32	5 43
21	5 49	5 49	20	5 29	5 42
28	5 49	5 48	27	5 28	5 43
May 5	5 49	5 46	November 3.. ..	5 27	5 44
12	5 49	5 46	10.. ..	5 27	5 44
19	5 50	5 46	17.. ..	5 28	5 46
26	5 50	5 45	24.. ..	5 28	5 47
June 2	5 52	5 46	December 1.. ..	5 30	5 51
9	5 53	5 46	8.. ..	5 31	5 53
16	5 54	5 47	15.. ..	5 35	5 57
23	5 56	5 49	22.. ..	5 39	6 0
30	5 58	5 51	29.. ..	5 42	6 4

PHASES OF THE MOON, 1939.

RABAU.

January—	May—
6—Full moon	4—Full moon
12—Last quarter	11—Last quarter
20—New moon	19—New moon
29—First quarter	26—First quarter
6—Perigee	11—Apogee
21—Apogee	23—Perigee
February—	June—
4—Full moon	2—Full moon
11—Last quarter	10—Last quarter
19—New moon	17—New moon
27—First quarter	24—First quarter
4—Perigee	8—Apogee
17—Apogee	20—Perigee
March—	July—
6—Full moon	2—Full moon
13—Last quarter	10—Last quarter
21—New moon	17—New moon
28—First quarter	23—First quarter
4—Perigee	31—Full moon
17—Apogee	5—Apogee
April—	18—Perigee
4—Full moon	August—
12—Last quarter	8—Last quarter
20—New moon	15—New moon
27—First quarter	22—First quarter
1—Perigee	30—Full moon
13—Apogee	2—Apogee
28—Perigee	15—Perigee
	29—Apogee

PHASES OF THE MOON, 1939—continued.

September—

7—Last quarter ..	6.24 a.m.
13—New moon ..	9.22 p.m.
20—First quarter ..	8.34 p.m.
29—Full moon ..	12.27 a.m.
13—Perigee ..	4.0 a.m.
25—Apogee ..	7.0 p.m.

October—

6—Last quarter ..	3.27 p.m.
13—New moon ..	6.30 a.m.
20—First quarter ..	1.24 p.m.
28—Full moon ..	4.42 p.m.
11—Perigee ..	11.0 a.m.
23—Apogee ..	9.0 a.m.

November—

4—Last quarter ..	11.12 p.m.
11—New moon ..	5.54 p.m.
19—First quarter ..	9.21 a.m.
27—Full moon ..	7.54 a.m.
8—Perigee ..	7.0 a.m.
20—Apogee ..	5.0 a.m.

December—

4—Last quarter ..	6.40 a.m.
11—New moon ..	7.45 a.m.
19—First quarter ..	7.4 a.m.
26—Full moon ..	7.28 p.m.
3—Perigee ..	5.0 p.m.
18—Apogee ..	2.0 a.m.
29—Perigee ..	9.0 p.m.

ECLIPSE, 1939.

A total Eclipse of the Moon, 3rd May, the beginning and ending visible generally in Australia, New Guinea and Western Pacific Ocean. Magnitude of Eclipse, 1.82 (Moon's diameter, 1.0). Begins, 3.28 a.m. Ends, 6.55 a.m. Total Phase: Begins, 4.40 a.m. Ends 5.43 a.m. (*Rabaul time*).

NOTES.

RAINFALL AND MOON PHASES IN THE TROPICS.⁽¹⁾

On the low-lying east bank of the Demerara River, about 8 miles from its mouth, is situate Diamond Plantation, the largest sugar factory in British Guiana, located approximately at 6 degrees 42 minutes North and 58 degrees 10 minutes West. Preserved at Diamond is a valuable record of the daily rainfall for the past 46 years. Through the courtesy of the plantation authorities, I have been able to secure a copy of the register.

So many farmers and planters in the West Indies and British Guiana have faith in the new moon or the full moon bringing rain, that it seemed of value to determine, from the Diamond data, what actual foundation there is for the belief.

Popular belief does not definitely fix the fall of rain for the actual date of the new or full moon, but for some time near the date. Thus one frequently overhears such remarks as: 'It will be new moon to-morrow and we should get some rain to-night or to-morrow,' or 'the moon is full to-night so we may get some rain to-night or to-morrow.' It was therefore decided to compare the average rainfall for (a) the three-day period made up of the day before new moon, the new moon day and the day after the new moon; (b) the three-day period immediately preceding (a); (c) the three-day period immediately following (a); (d) the three-day period made up of the day before full moon, the full moon day and the day following the full moon; (e) the three-day period immediately preceding (d); (f) the three-day period immediately following (d).

This was done for the year as a whole and for the dry seasons only, since it might be argued that it is only during the latter that farmers are worried about rain and trouble to note the supposed relationship between precipitation and moon phases. At Diamond the weekly rainfall averages less than 2 inches from the week ending 21st January to that ending 29th April, and again from the week ending 12th August to that ending 25th November. These periods were taken as constituting the dry seasons. During the rest of the year the rainfall averages more than 2 inches per week.

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