

GENERAL REPORT ON WEATHER CONDITIONS FOR THE YEAR 1946

Rainfall.

The rainfall for 1946 was very similar to those of 1944 and 1945, described respectively in these reports as "lean" and "most disastrous." 1946 continued cumulatively the adverse effects of the two previous years, resulting in a further decrease of sugar output from 1945 and a poor prospect for the 1947 crop.

The rainfall for the three successive years was 30.32, 28.50 and 29.55 inches respectively, each approximately only about 80 per cent. of the average annual rainfall at this station of 36.76 inches for the 20 years ending 1945.

There have been lower annual totals than these, such as 24.35 inches in 1941 and 25.42 inches in 1925, but the three-year total of 88.37, showing a deficit below the average rainfall of 21.91 inches over the three-year period, is by far the lowest total for any period of three consecutive years over our 21 years of records or compared with those of Natal Estates Ltd., Mount Edgecombe, going back 60 years. The only comparable three-year deficiency totals of rainfall are those of 89.36 inches for the period ending 1889, and 90.61 inches for that ending 1924. However, if we multiply the two last named totals by the factor 0.93 which, experience shows, represents the average approximate ratio of the annual rainfall at the Experiment Station site to that of Natal Estates' factory, we arrive at presumptive three-year totals even lower than those of the period now under review. This view is borne out by the fact that the total rainfall over the past three consecutive years at Natal Estates Ltd. is 93.60 inches.

Each of the past three years is remarkable not only for a number of rain-days well below the average of 116 for this station, but also for an average fall per rain-day much below the average of 0.314 inches for this station. February and the months of May to October inclusive in particular had rain-days with abnormally slight totals. This may be connected in some way with the very small number of thunderstorms over the greater part of the period.

The distribution of rainfall during 1946 was not so unfavourable as during the two preceding years, so that if it had not been for the accumulated deficiency of natural reserves of water as represented in springs and the like, accentuated by the remarkable lack of rainfall during the May-August period, crop conditions would not have been so bad in 1946, even with such a low rainfall.

Thus the important growing period of January to April inclusive was well supplied with rain, the total

for these four months being 16.96 inches, or 1 inch above the average for this period.

The sudden change to dry conditions in May promoted the early ripening of the crop, which might otherwise have been seriously delayed in view of the late rains in April; but the increasing drought which followed, culminating in a record for this station in August, when, for the first time here in any calendar month, no measurable rainfall, that is to say less than 0.01 inch was recorded, had disastrous results on the sugarcane crop.

The total rainfall for the period from May to August was 0.82 inches, or only one-ninth of the average rainfall of 7.34 inches for this period, and by far the lowest total for any consecutive four months at this station.

The remaining four months of the year were also all deficient in rainfall but not so much below the average, so that conditions were much better for sugarcane planting, especially in November and December, than in the corresponding period of 1945.

Only January, March and April in 1946 had rainfalls higher than the averages for the respective months, and December was the thirtieth out of 36 consecutive months to have a rainfall below the average.

There was no soaking rain of more than one inch on any one day between April 1st and November 21st, nor any rainfall greater than half an inch on any day between April 27th and October 2nd. There was no measurable rainfall between June 10th and July 27th or between July 27th and September 4th.

The highest rainfall for any single day throughout the year was 3.11 inches on March 31st, followed by 2.92 inches on April 1st. This total of 6.03 inches is the highest for any two consecutive days at this station since May 4th and 5th, 1940, when there were 8.12 inches. The total for the three days ending April 1st, 1946, of 6.11 inches is also the highest for any period of consecutive days since the seven days ending November 12th, 1940, when there were 6.43 inches of rain.

There were no other days in 1946 with more than 2 inches of rain, and only January 27th, November 21st and December 23rd with between 1 and 2 inches. Normally there are many more days in the year than this with a rainfall of over one inch.

Following is the Experiment Station rainfall by months compared with the average of the past 20 years:—

	1946.					Mean 1926-1945 inclusive.					
	Total for month inches.	Aggregate from 1st January.	Per cent. of average aggregate.	No. of rain days.	Average rainfall per rain day in ins.	Total for month in ins.	Aggregate from 1st January.	No. of rain days.	Average rainfall per day.	Per cent. of wet days.	Average rainfall per rain day.
January ...	4.86	4.86	132.1	14	0.347	3.68	3.68	14	0.119	45	0.263
February ...	2.32	7.18	86.2	13	0.178	4.65	8.33	12	0.165	42	0.388
March ...	5.28	12.46	92.0	13	0.406	5.21	13.54	12	0.168	39	0.434
April ...	4.50	16.96	106.6	10	0.450	2.37	15.91	8	0.079	27	0.296
May ...	0.50	17.46	94.6	7	0.071	2.55	18.46	6	0.082	19	0.425
June ...	0.13	17.59	85.9	2	0.065	2.02	20.48	4	0.067	13	0.505
July ...	0.19	17.78	81.0	1	0.190	1.47	21.95	5	0.047	16	0.294
August ...	0.00	17.78	76.5	0	0.000	1.30	23.25	6	0.041	19	0.217
September .	1.75	19.53	77.2	8	0.219	2.04	25.29	8	0.068	27	0.255
October ...	2.21	21.74	76.4	16	0.138	3.18	28.47	14	0.103	45	0.227
November .	3.81	25.55	78.4	14	0.272	4.11	32.58	14	0.137	47	0.294
December...	4.00	29.55	80.4	12	0.333	4.18	36.76	15	0.135	48	0.279
Total...		29.55	80.4	110	0.269		36.76	117	0.101	32	0.314

Table of Rainfall and Mean Temperature.

Year.	Rainfall in inches.	Per cent. of present mean.	Number of rain days.	Average fall per rain day.	Mean shade temperature.
1926 ...	25.42	69.15	116	0.219	—
1927 ...	42.46	115.51	128	0.332	—
1928 ...	27.56	74.97	114	0.242	67.8
1929 ...	43.83	119.23	129	0.340	67.5
1930 ...	30.03	81.69	123	0.244	67.8
1931 ...	28.01	76.20	112	0.250	68.8
1932 ...	41.36	112.51	126	0.328	69.2
1933 ...	27.14	73.83	109	0.249	68.9
1934 ...	39.42	107.24	127	0.310	68.9
1935 ...	53.25	144.86	111	0.480	66.8
1936 ...	45.36	123.39	110	0.412	67.9
1937 ...	33.21	90.34	101	0.329	68.8
1938 ...	37.97	103.13	117	0.325	68.7
1939 ...	42.87	116.62	134	0.320	68.1
1940 ...	37.31	101.50	108	0.345	69.9
1941 ...	24.35	66.24	107	0.227	69.9
1942 ...	45.41	123.53	116	0.391	69.4
1943 ...	51.32	139.61	124	0.414	68.2
1944 ...	30.32	82.48	105	0.289	69.5
1945 ...	28.50	77.53	105	0.271	68.9
Means	36.76	99.98	116	0.314	68.6
1946 ...	29.55	80.39	110	0.269	69.4

District Rainfall Returns.

As in 1945, every one of the 44 stations included in our returns showed a rainfall below the average; the average rainfall of all stations was 32.02 inches, which is very little more than in 1945 and is only 78.4 per cent. of the total mean of the past 18 years. The mean annual rainfall over the past three years

is 33.49 inches, thus showing an average annual deficiency from the mean of 7.37 inches over this period.

In both 1944 and 1945 the drought was most severe on the South Coast, the progressively less further north. In 1946, however, this position was reversed, the drought being most severe in Zululand and progressively less southwards.

	Average rainfall for 1946 in inches.	Average for years 1929-1946 inclusive in inches.	1946 rainfall as per cent. of average.
South Coast: mean of 9 stations south of the Umgeni River ...	34.09	41.15	82.8
North Coast: mean of 21 stations between the Umgeni and Tugela Rivers ...	31.84	39.67	80.3
Zululand: mean of 14 stations north of the Tugela River.	30.94	42.49	72.8
Total averages...	32.02	40.86	78.4

Stations with the lowest relative deficiency were Umzumbi and Effingham, with rainfalls below the average of only 2.95 inches and 2.83 inches respectively, representing totals of 92.5 per cent. and 91.1 per cent. of their respective averages.

On the other hand three stations, all in Zululand, had a deficiency of more than 14 inches, Gingindhlovu 14.95 inches below normal, representing a rainfall of 66.7 per cent. of the average; Eteza with 14.54 inches below normal, representing a rainfall of only 62.7 per cent. of the average; and Kwambonambi with a deficiency of 14.30 inches.

The wettest portion of the coast is represented in our returns by Eshowe, Mtunzini and Felixton. These areas have an average rainfall of 50.50 inches, but it was only 40.20 inches on this occasion.

The driest area of the coast is that part of Mount Edgecombe district including Effingham, Duffs Road, Milkwood Kraal, Phoenix, the Experiment Station and Blackburn. The general average rainfall over this area is 34.40 inches and in 1946 it was 28.46 inches, so that the deficiency was not particularly marked here.

The only station with a rainfall of over 40 inches in 1946 was Eshowe with 41.57 inches. Four other stations, Mtunzini, Felixton, Kearsney and Point (Durban) had rainfalls of over 38.9 inches.

Riverview, the most northerly station in our records, had only 22.83 inches and was the only station to have less than 23 inches. Eteza and Kulu, also in northern Zululand, were the only other stations to have 25 inches or less.

Temperatures.

The mean temperature for 1946 was 69.4° F., which is among the highest annual means recorded at this station, and 0.8° above the 20-year average of 68.6° F.

This is not due to any excessive temperature in the warmer months of January and February, for which no more than average mean temperatures were recorded; but March with a mean temperature of 74.6° was much above the average for that month, and every subsequent month of the year, excepting June and October, were also considerably above normal.

The screen temperatures by months in degrees Fahrenheit are as follows:—

	1946.				1928-1945 inclusive.			
	Maxi- mum.	Mini- mum.	Mean.	Daily range.	Maxi- mum.	Mini- mum.	Mean.	Daily range.
Jan. ...	81.1	67.0	74.1	14.1	81.4	67.0	74.2	14.4
Feb. ...	81.2	68.1	74.7	13.1	81.8	67.3	74.6	14.5
March ...	81.8	67.3	74.6	14.5	80.3	65.5	72.9	14.8
April...	79.0	64.2	71.6	14.8	78.3	61.9	70.1	16.4
May ...	76.3	58.5	67.4	17.8	75.9	56.7	66.3	19.2
June...	72.5	51.2	61.8	21.3	72.6	52.7	62.6	19.9
July ...	74.4	61.1	62.8	23.3	71.7	52.0	61.8	19.7
Aug....	74.8	52.9	63.9	21.9	72.8	53.8	63.3	19.0
Sept....	78.1	59.0	68.5	19.1	74.3	57.0	65.6	17.3
Oct. ...	75.1	61.4	68.3	13.7	76.2	60.7	68.4	15.5
Nov....	80.7	63.9	72.3	16.8	78.0	63.2	70.6	14.8
Dec. ...	81.1	66.0	73.6	15.1	80.3	65.6	73.0	14.7
Means	78.0	60.9	69.4	17.1	77.0	60.3	68.6	16.7

February was, as usual, the warmest month of the year; but the coolest was June, for the third successive year, instead of July as in most previous years.

There was the usual monthly sequence of mean temperature, except that October, for the second year in succession, was somewhat cooler than September, instead of the average increase of temperature of 2.8° from September to October.

The highest shade temperature for the year was 106.5° on September 16th. This is the second highest

shade temperature recorded at this station, the absolute maximum being 113.5° on December 30th, 1941.

A remarkable feature of the year was the number of days with a shade temperature of over 90°, 15 in all, of which November had no less than 6. Temperatures as high as this are not very frequent in most years at this station. The lowest maximum shade temperatures for the year were 64° on September 30th, and 62° on the following day. These two days had a daily range of only 1° and 5° respectively.

The lowest screen temperature for the year was 41.5° on August 14th. This is the lowest temperature recorded at this station since July 20th, 1943, when it was also 41.5°. The absolute minimum at this station is 41.0° on July 9, 1934, when there were appreciable ground frosts, not observed on this occasion.

There were only three other days when screen temperatures below 45° were recorded.

The mean daily range of temperature for the year was again above the average, characteristic of a low rainfall. On September 16th a range of 46° was recorded. For the month of July the daily range was as high as 23.3°.

The lowest grass thermometer reading was 35° on August 13th. This is the lowest recorded since the cold spell of July 20th to 23rd, 1943, when minimum readings ranged from 32.5° to 34.5°. For the first five months of 1946 no grass thermometer was available, so that readings refer only to the period from June onwards.

The average earth thermometer readings for the year were again above the average, as is characteristic of dry years. The means were 73.4° at 4 feet depth, 73.2° at 2 feet, and an estimated mean of 71.9° at 1 foot (the temperature at this depth was not recorded during February and March).

The records show that it would have been profitable to irrigate for increased growth during every month of the year excepting July and August and possibly September; a particularly good response would have been gained in January, February, March April and December.

Atmospheric Conditions.

The average barometer reading for the year was 29.76 inches, which is about the average for this station. June had the highest monthly average, 29.98 inches, and December the lowest, 29.63 inches. Within these limits the months followed the usual seasonal change, except that August, with 29.92 inches, was slightly higher than July. The highest reading for the year was 30.39 inches on August 12th, during a long spell of fine weather, and the lowest 29.22 inches on December 19th, followed by cloudy and showery weather.

The mean relative atmospheric humidity, per cent. of saturation, was 72.0 per cent. at 8-30 a.m., which is not particularly low in view of the conditions prevailing throughout most of the year; but the average humidity at 1 p.m. was no more than 59.5 per cent., which is considerably the lowest for any year at this station. For the three months ending August the humidity at 1 p.m. was only 47.5 per cent. of saturation.

The total evaporation from a free water surface was 48.76 inches for the year. This, while not so high as for 1945 when it was 50.64 inches, is one of the highest ever recorded here, and is 19.21 inches more than the rainfall. December had the highest monthly evaporation, 5.90 inches, and June the lowest, 2.54 inches. The evaporation greatly exceeded the rainfall in every month except March and April.

The total hours of sunshine during the year were 2,466.3 or 56.3 per cent. of total hours of daylight; this is among the highest recorded at this station. The sunniest month was July with 75.5 per cent. of sunshine, and October again the cloudiest with 39.2 per cent.

Experiment Station,
South African Sugar Association,
Mount Edgecombe.
February, 1946.

The year was again very windy, especially from July to November inclusive. As in the previous year the winds were largely from the north and north-east and partially accounted for the high temperatures and excessive dryness.

Conclusions.

For the third successive year rainfall and humidity have been very low, though not quite so unfavourably distributed as in the two preceding years. This has resulted in a further reduction of the sugarcane crop, and an unfavourable outlook at present for the 1947/48 crop.

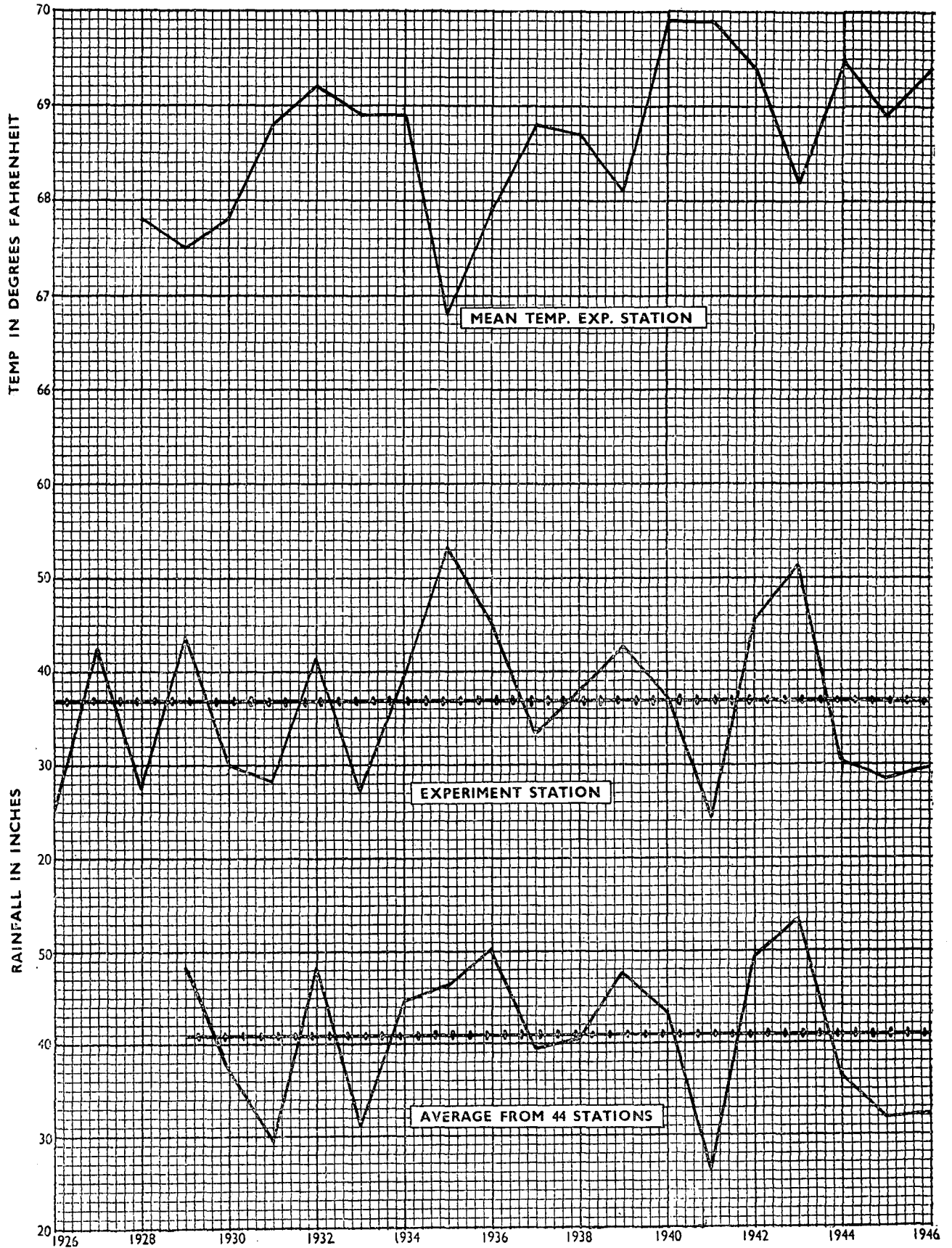
As in the preceding year, the deficient rainfall was associated with a very low average fall per rain-day, especially during the winter months.

The mean annual temperature was considerably above the average, and this, combined with low rainfall and humidity and many hot drying winds, affected the sugarcane crop very adversely.

ANNUAL RAINFALL 1929-1946.

Station.	Recorder.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.	1938.	1939.	1940.	1941.	1942.	1943.	1944.	1945.	1946.	Average
Port Shepstone ..	Lightkeeper, S.A.R. & H. . . .	61.89	42.82	51.06	49.71	40.58	38.55	42.01	49.63	38.25	42.52	44.08	27.66	23.12	54.16	51.65	31.24	33.43	37.14	42.19
Umzumbi	Mrs. M. G. Lomas	56.28	34.95	40.31	42.04	36.95	37.50	43.66	51.24	40.63	42.82	42.86	27.74	23.78	51.98	44.86	26.93	31.51	36.61	39.56
Esperanza	Hawksworth & Sons, Ltd. . . .	57.47	42.10	36.13	38.36	32.81	46.18	43.70	44.74	36.14	41.41	47.31	30.48	19.49	44.29	63.64	39.09	35.30	31.16	40.54
Renishaw.	Crookes Bros., Ltd.	58.24	37.22	31.86	41.56	34.43	42.17	42.69	46.10	44.40	36.13	46.90	31.83	25.16	43.33	46.74	35.26	24.35	29.63	38.78
Park Rynie	V. J. S. Crookes	58.84	39.25	38.94	44.14	37.71	46.53	47.89	52.85	46.10	43.22	56.25	34.46	27.40	47.14	51.25	40.16	31.78	35.90	43.29
Illovo	Illovo Sugar Estates, Ltd. . . .	49.22	38.12	31.54	36.89	26.94	41.00	39.03	51.65	30.79	43.09	42.22	30.10	26.17	56.12	43.40	30.49	28.85	30.67	37.57
Umbogintwini ..	African Explosives & Industries, Ltd.	47.88	42.10	32.42	39.67	36.43	45.50	52.87	53.09	34.78	41.94	48.53	31.26	28.18	51.89	49.16	37.75	31.74	34.91	41.12
Durban (Berea) ..	Natal Herbarium	46.87	38.93	31.51	44.74	31.61	42.28	58.08	46.71	36.09	41.23	47.26	38.35	30.06	51.12	52.97	31.30	28.91	32.49	40.58
Durban (Point) ..	S.A. Railways & Harbours	59.97	38.92	43.68	49.45	34.42	47.45	60.93	56.85	45.84	41.89	62.57	40.99	34.95	58.91	61.86	34.04	28.63	38.91	46.68
Effingham	Natal Estates, Ltd.	33.52	26.17	21.33	30.56	19.63	30.57	46.86	42.28	28.25	32.40	35.33	26.75	22.15	42.90	43.83	29.80	29.03	28.85	31.68
Westbrook	Natal Estates, Ltd.	46.97	33.01	27.03	45.62	31.18	38.49	55.06	52.14	33.56	41.68	45.75	40.05	29.09	52.43	60.15	37.04	33.78	31.18	40.79
Milkwood Kraal ..	Natal Estates, Ltd.	35.60	26.90	23.17	33.05	22.15	31.96	43.07	36.45	23.49	34.98	36.24	34.97	23.02	45.03	48.46	27.35	26.70	27.83	32.25
Mount Edgecombe	Natal Estates, Ltd.	48.30	34.52	32.98	40.19	30.94	40.03	57.41	49.60	36.55	43.13	46.06	40.23	28.34	51.66	55.40	32.66	30.31	30.66	40.50
Mount Edgecombe	S.A.S.A. Experiment Station . . .	43.83	30.03	28.01	41.36	27.14	39.42	53.25	45.36	33.21	37.97	42.87	37.31	24.35	45.41	51.32	30.32	28.50	29.55	37.18
Cornubia.	Natal Estates, Ltd.	46.22	33.45	27.85	42.53	29.98	40.25	59.21	52.27	40.37	44.84	51.66	42.80	30.66	53.17	59.51	35.15	34.78	29.25	41.89
Burnside	Natal Estates, Ltd.	46.01	31.78	27.01	38.79	27.55	39.61	53.26	47.48	34.01	39.76	48.67	44.91	29.54	50.68	56.39	33.71	32.29	31.81	39.63
Blackburn	Natal Estates, Ltd.	48.97	34.09	23.78	37.52	24.94	33.94	48.78	43.67	34.70	35.45	49.84	36.90	22.68	43.48	51.96	29.73	28.49	27.98	36.50
Beach	Natal Estates, Ltd.	56.49	39.25	30.15	51.64	31.53	43.18	59.09	49.19	38.62	44.24	54.88	40.81	28.76	48.74	49.53	33.07	37.26	32.79	42.73
Saccharine	Natal Estates, Ltd.	48.73	32.82	29.76	38.37	29.22	42.38	51.95	55.98	32.07	36.91	42.05	38.41	23.73	46.57	51.70	34.14	32.04	28.83	38.65
Ottawa	Natal Estates, Ltd.	40.38	29.21	24.49	34.72	26.72	39.08	47.55	44.66	47.32	37.83	41.95	39.18	22.16	52.57	55.35	32.65	27.16	31.69	37.59
La Mercy	Gersigny Bros.	53.37	36.40	29.26	56.65	31.16	37.64	56.27	45.65	35.17	45.36	49.41	42.63	25.26	53.89	50.86	32.34	31.39	34.87	41.53
Tongaat	Tongaat Sugar Co., Ltd.	50.55	34.26	29.88	48.79	26.59	38.44	47.54	50.87	35.61	40.85	44.67	40.87	22.72	55.67	53.08	31.37	30.75	33.90	39.80
Sinembe	H. C. Heenan	49.78	37.02	30.36	52.71	38.64	49.99	41.84	56.80	35.17	42.07	45.80	43.53	25.25	51.64	50.42	34.15	30.86	33.48	41.64
Umhlali.	G. P. Ladlau	50.38	40.07	20.09	49.85	35.13	41.20	53.61	56.57	40.29	56.88	58.14	39.72	29.49	54.74	52.60	37.16	34.25	37.12	44.24
Chaka's Kraal ..	Waldene Sugar Estate	42.78	33.06	22.52	43.09	30.14	35.09	43.38	46.74	32.87	38.40	42.27	30.81	21.78	47.42	44.33	31.01	32.15	30.67	36.03
Tinley Manor .. .	Sir J. L. Hulett & Sons, Ltd. . . .	51.36	33.22	30.97	47.44	35.44	41.20	50.97	56.83	38.38	46.35	48.93	41.16	24.37	47.73	47.78	32.49	27.46	32.59	40.82
Riet Valley	H. E. Essery	50.07	35.65	25.38	54.64	37.98	47.70	44.33	65.99	35.28	41.96	51.39	45.90	27.37	54.75	61.35	39.17	36.31	33.68	43.83
Kearsney	Sir J. L. Hulett & Sons, Ltd. . . .	49.20	43.36	26.31	55.49	37.45	53.57	38.42	64.34	39.73	44.30	47.46	50.80	31.91	49.74	58.02	37.05	32.67	39.18	44.39
Darnall	Mrs. Mann	40.75	37.36	23.03	44.14	25.45	49.91	44.04	56.32	40.68	45.56	44.65	48.48	25.49	48.19	54.84	43.26	34.88	32.28	41.07
Darnall	Sir J. L. Hulett & Sons, Ltd. . . .	42.38	40.63	24.31	52.27	29.22	48.24	40.23	52.09	39.75	43.74	43.30	47.10	25.27	46.02	52.45	38.59	28.46	30.58	40.29
Mandini	St. Andrews Estate	42.05	40.41	24.40	50.98	27.41	55.34	45.88	51.25	35.34	40.86	38.34	41.01	26.70	48.91	56.67	41.28	30.24	30.41	40.42
Amatikulu	Sir J. L. Hulett & Sons, Ltd. . . .	42.23	40.80	21.09	47.16	29.86	47.66	43.41	47.86	35.38	37.24	47.53	50.40	27.80	48.87	55.37	39.08	28.45	26.34	39.81
Gingindhlovu .. .	P. C. Lilburn	42.42	47.72	24.60	53.85	33.08	50.91	53.16	52.68	39.62	40.10	54.12	53.75	30.35	56.40	62.73	47.02	36.28	29.98	44.93
Mtunzini	R. D. Shaw.	42.57	48.99	32.92	61.97	40.03	59.28	53.02	55.62	43.57	44.23	65.11	62.16	39.08	60.31	66.31	53.71	50.98	39.63	51.08
Eshowe.	District Forest Officer	49.97	44.26	30.36	65.05	47.31	71.85	46.18	66.61	47.56	46.40	52.55	70.67	36.57	47.44	68.80	50.17	45.40	41.57	51.60
Felixton	Sir J. L. Hulett & Sons, Ltd. . . .	59.39	44.57	38.03	69.03	31.43	58.72	50.16	58.71	51.96	38.62	54.99	61.15	30.08	53.45	52.48	48.62	37.62	39.40	48.81
Empangeni West..	W. H. Simpson	51.61	36.82	20.56	48.32	22.92	41.08	36.40	36.62	39.10	32.93	47.01	41.24	24.50	40.74	48.47	38.05	28.64	25.00	36.67
Empangeni	Morris Bros.	46.05	33.56	30.35	49.58	27.72	45.60	37.28	47.54	45.31	35.99	52.02	53.46	26.79	48.11	54.13	44.67	33.98	33.13	41.40
Empangeni	Zululand Sugar Millers & Plant- ers.	48.95	33.80	31.98	55.34	29.55	48.72	38.18	49.48	47.87	33.49	51.79	53.11	24.54	45.06	50.05	39.56	30.78	33.21	41.41
Kulu Halt	S. B. Forrest	51.94	37.44	25.96	66.55	30.15	48.26	35.03	48.39	56.80	36.95	52.91	57.61	23.97	52.28	55.73	43.02	32.45	31.75	43.73
Mposa	W. Springorum	45.80	37.83	24.29	59.33	25.43	46.45	29.59	46.81	51.80	33.08	47.63	51.62	20.58	43.56	44.64	34.04	29.49	28.05	38.89
Kwambonambi ..	S. Larsen	55.97	42.99	28.14	64.34	29.35	64.21	34.27	41.64	49.37	33.42	42.91	53.82	20.81	47.01	50.75	36.50	28.38	27.44	41.74
Eteza	Haworth Bros.	41.27	36.86	31.27	59.43	29.85	44.05	25.73	42.21	49.95	35.98	41.26	61.81	22.04	41.15	54.36	33.55	26.90	24.47	39.01
Riverview	Umfolozu Co-op. Sugar Planters, Ltd.	34.65	38.45	22.38	51.29	25.05	37.36	21.44	35.93	39.45	36.33	39.93	54.95	16.45	38.92	50.42	36.11	33.97	22.83	35.33
		48.30	37.20	29.39	48.20	31.12	44.60	46.12	50.10	39.48	40.38	47.63	43.37	26.18	49.41	53.31	36.45	31.99	32.02	40.86

ANNUAL RAINFALL AND MEAN TEMPERATURE



RAINFALL AND MEAN TEMPERATURE ———
 RAINFALL AVERAGE 1926-1945 AND 1929-1946 - - - - -

RAINFALL AND TEMPERATURE AT THE EXPERIMENT STATION BY MONTHS

