WEATHER REPORT FOR THE YEAR 1st JUNE, 1968—31st MAY, 1969

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General Scope of Report

This report records the weather experienced in the South African sugar industry during the year ending May, 1969, and compares it with conditions experienced in the past. Some changes have been made in the form of the report. For example, temperature and Class A pan evaporation data from meteorological stations recently established throughout the sugar industry, are included. Climatic data from Swaziland and the new quota areas such as Melmoth, Muden, the Natal Midlands and the Eastern Transvaal are also reported for the first time. Included in these records are the mean monthly temperatures at grass level, and the number of days per month when sub-zero temperatures were recorded. The sub-zero records do not necessarily indicate that a dangerous frost has occurred, since a temperature of −0.5°C or −1.0°C (31°F or 30°F) at ground level for one or two nights is unlikely to harm the plants. Nevertheless they are a guide to the possibility of severe frost in the area, particularly on low lying ground. The report for the Mount Edgecombe meteorological station now includes data on relative humidity, sunshine hours and run-of-wind, in addition to details of temperature and evaporation. These data will reflect broadly the weather conditions prevailing in a large part of the industry.

Tabulated Data

Table I gives the annual rainfall recorded at each of the 54 measuring stations for the past 5 years.

Table II gives this year's rainfall distribution compared with the 45 year average for 54 stations in the sugarbelt.

Table III gives the mean monthly rainfall during the past year for each district covered by this survey, as well as for each of the main subdivisions.

Table IV gives the mean monthly screen temperatures and Class A pan evaporation data for 26 meteorological sites in the sugar industry.

Table V gives the mean monthly grass minimum temperatures and the number of days when sub-zero temperatures were recorded during the last two years for 7 meteorological sites.

Table VI gives the mean monthly screen and soil temperatures, relative humidity, sunshine hours and run-of-wind for Mount Edgecombe.

Note: Due to rounding off of decimal points, the sum of monthly averages does not in all cases exactly equal the annual average.

TABLE II

This year's rainfall distribution compared with the mean of the 45 year average for 54 stations in the sugarbelt

Months	Computed mean rainfall for 54 centres 1924-1969	Actual rainfall for 54 centres June, 1968-May, 1969
June	1.55	0.85
July	1.16	0.24
August	1.45	3.67
September	2.45	2.41
October	3.59	2.78
November	4.29	3.38
December	4.56	4.04
January	4.49	1.78
February	4.54	3.21
March	5.17	10.34
April	2.89	2.96
May	1.96	4.05
Total	38.10	39.71

Note: Data from Mehlomnyama is no longer available so data from the Umzimkulu mill site has been used instead from the 1st June, 1968.

Comments on the Rainfall

The total rainfall for the year throughout the sugar industry was very slightly greater (1.6 inches) than the long term average, but distribution was poor. Rainfall during the year June, 1967 to May, 1968 was 8 inches below the average, so that the year under review started with a soil moisture deficit which deteriorated further as a result of a dry June and July. August brought good rains to most parts, with the exception of northern Zululand and areas to the north where dry conditions continued. Rainfall in September, October and November was below average in the greater part of the industry but in the Natal Midlands and, ironically, in the irrigated areas of the eastern Transvaal and Swaziland good rains were experienced. December rainfall was again slightly lower than average with the exception of the mistbelt areas of Zululand and the Natal Midlands where high rainfall was recorded. January was a particularly dry and hot month in the coastal belt and severe moisture stress was experienced by the crop. The situation did not improve in February when rainfall was again below average. The first day of March brought relief from the dry conditions, and good rains fell throughout the industry.

TABLE I
The annual rainfall recorded at 54 centres—in the sugarbelt

	Rainfall for year 1st June, 1964 to 31st May, 1965	Rainfall for year 1st June, 1965 to 31st May, 1966	Rainfall for year 1st June, 1966 to 31st May, 1967	Rainfall for year 1st June, 1967 to 31st May, 1968	Rainfall for year 1st June, 1968 to 31st May, 1969
Port Shepstone:					
Mehlomnyama/Umzimkulu*	33.32	36.03	35.41	28.53	43.15
Umzinto:					
Hibberdene	51.11	42.19	35.57	27.79	44.12
Mtwalume	45.91	39.32	29.29	25.02	32.93
Sezela Mill	52.44	48.75	35.60	28.88	38.76
Esperanza	41.02	45.67	33.68	28.23	35.86
Renishaw Mill	40.87	45.20	33.36	35.92	36.44
Dumisa	42.20	48.95	35.91	26.44	30.45
Durban, Camperdown, etc:					
Illovo Mill	43.06	42.86	34.80	41.11	39.36
Umbumbulu	29.51	44.40	36.67	30.48	30.96
Thornville	24.53	33.75	37.98	25.21	26.56
Inanda:					
Mount Edgecombe					
Effingham	26.78	35.02	31.66	27.52	31.72
Experiment Station	23.50	35.20	30.88	32.28	36.50
Burnside	26.12	36.08	31.81	34.80	39.60
La Mercy	29.08	35.20	35.75	36.78	43.55
Canelands	24.73	48.14	34.33	28.55	37.97
Tongaat					
Frosterly	26.28	32.29	35.93	27.35	36.98
Inyaninga	22.50	32.88	34.71	29.84	37.99
Inanda	32.34	41.06	44.25	30.36	43.44
Tongaat					
Mwawine	30.47	38.30	38.61	27.90	45.28
Lower Tugela:					
Maidstone Mill	25.74	31.74	34.42	28.30	40.60
Sinembe	26.90	37.77	40.26	32.57	43.32
Upper Tongaat	31.02	37.92	42.02	30.03	41.88
Frasers Estate	27.70	37.62	42.43	31.84	43.97
Chakas Kraal Expt. Farm	26.82	38.76	43.74	29.66	40.43
Chakas Kraal	26.69	41.14	43.72	36.21	37.68
Groutville	23.46	35.22	40.17	25.17	36.82
Kearsney	28.77	44.85	48.13	34.25	46.03
Doornkop Mill	22.71	33.21	45.47	29.59	40.69
Doornkop Sprinz	25.54	46.08	52.29	35.79	43.80
Gledhow Mill	24.99	37.50	37.38	28.87	38.36
Darnall Mill	26.33	43.30	43.16	33.71	42.77
Tugela Mouth	37.16	50.21	45.96	42.62	49.98
Mtunzini:					
Mandini	24.87	45.32	44.22	35.21	42.51
Amatikulu Mill	24.50	37.29	38.50	28.95	38.06
Inyoni	24.52	43.70	43.38	32.55	40.49
Mtunzini	37.16	48.75	63.73	40.61	55.13
Blackburn	27.34	38.66	44.78	30.47	37.33
Eshowe:					
Entumeni Mill	25.07	37.21	43.86	29.95	39.88
Eshowe	29.10	45.72	46.56	36.40	48.51
Nkwaleni	15.69	26.48	32.68	17.07	31.34
Lower Umfolosi:					
Felixton Mill	41.19	57.41	57.60	37.53	62.04
Empangeni West	24.66	31.92	37.94	24.61	39.50
Empangeni Mill	30.90	42.45	44.26	34.54	51.45
Kulu Halt	26.55	38.97	41.61	29.71	44.71
Ukulu Properties	27.55	33.19	37.20	28.03	39.44
Mposa	25.94	37.95	32.97	30.61	39.15
Kwambonambi	31.24	47.68	38.17	28.50	39.44
Eteza	27.69	43.88	33.61	26.19	40.87
Hlabisa:					
Mtubatuba Mill	22.06	29.47	27.43	23.20	33.21
U.L.O.A.	31.09	43.50	31.81	32.18	42.18
Nyalazi River	21.04	36.36	34.97	24.92	40.16
Hluhluwe	14.49	28.03	25.23	22.25	30.47
Ubombo:					
Mkuzi	17.48	19.54	32.39	16.66	24.52
Piet Retief:					
Pongola	16.95	25.21	28.21	22.46	26.12
Mean	29.02	39.17	38.65	30.08	39.71

*Data from Mehlomnyama is no longer available, so data from the Umzimkulu mill site has been used instead from 1st June, 1968.

TABLE III

Rainfall in inches by districts for months of June, 1968 to May, 1969 inclusive

District	No. of Centres	1968							1969					Total June, 1968 -May, 1969
		June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March	April	May	
Port Shepstone	1	0.00	0.24	3.80	4.13	3.75	2.69	4.20	1.30	5.29	5.87	3.70	7.92	42.89
Umzinto	6	0.20	0.05	4.23	2.72	2.99	2.29	3.03	1.12	4.20	6.40	2.92	6.82	36.97
Durban, Pinetown, etc.	3	0.18	0.09	3.49	2.60	2.67	2.52	2.50	1.60	3.59	6.38	2.76	3.92	32.30
Mean: South Coast	10	0.18	0.08	3.96	2.83	2.97	2.40	2.99	1.28	4.12	6.34	2.95	6.06	36.16
Inanda	9	0.33	0.05	4.25	2.45	2.95	2.87	2.59	2.17	3.69	9.91	3.12	4.85	39.24
Lower Tugela	13	0.60	0.06	4.27	2.90	2.37	3.91	4.97	2.14	4.02	9.94	2.64	4.25	42.07
Mean: North Coast	22	0.49	0.06	4.26	2.71	2.61	3.48	3.99	2.15	3.89	9.93	2.84	4.50	40.91
Mean: South of Tugela	32	0.39	0.07	4.16	2.75	2.72	3.15	3.68	1.88	3.96	8.81	2.87	4.99	39.43
Mtunzini	5	2.03	0.28	3.92	3.00	2.22	4.66	5.15	1.92	2.68	10.93	2.98	2.94	42.71
Eshowe	3	0.46	0.14	3.81	2.07	2.29	3.21	8.00	2.06	2.44	10.65	2.22	2.55	39.90
Melmoth	1	0.32	0.14	4.14	2.34	2.69	4.55	9.50	2.39	2.73	10.78	2.21	3.65	45.44
Lower Umfolozi	8	2.04	0.88	2.94	1.92	3.43	3.96	4.27	0.94	1.66	16.03	3.36	3.14	44.57
Hlabisa	4	1.34	0.48	2.20	1.36	3.73	3.13	3.38	1.02	1.39	12.97	3.54	1.66	36.20
Ubombo	1	0.00	0.11	0.84	0.13	2.18	2.57	1.84	3.44	2.60	5.00	2.82	2.99	24.52
Piet Retief	1	0.00	0.18	0.86	0.00	0.98	2.33	1.12	5.75	2.39	7.69	2.48	2.34	26.12
Mean: Zululand and Piet Retief	23	1.46	0.49	3.01	1.93	2.85	3.77	4.78	1.70	2.14	12.62	3.05	2.74	40.50
Seven Oaks	1	0.00	0.00	1.52	1.65	2.46	3.30	6.32	8.34	7.50	9.52	2.44	1.92	44.95
Windy Hill	1	0.00	0.04	3.85	2.31	2.61	5.31	4.34	5.25	5.39	7.99	2.42	3.09	42.70
Mean: Midlands	2	0.00	0.02	2.69	1.98	2.51	4.31	5.33	6.80	6.95	8.76	2.43	2.51	44.29
Tenbosch	1	1.00	0.41	0.07	0.43	0.67	3.47	1.33	4.07	3.28	3.93	1.03	0.30	19.99
Mhlati	1	0.97	0.50	0.30	0.23	1.45	3.36	1.40	2.90	5.74	2.20	0.96	0.43	20.44
Mean: E. Transvaal Lowveld	2	0.99	0.46	0.19	0.33	1.06	3.42	1.37	3.34	4.51	3.07	1.00	0.37	20.11
Mhlume	2	0.73	0.93	0.67	0.56	1.40	4.91	2.45	2.33	2.39	6.69	3.93	2.38	29.37
Big Bend	1	0.19	0.42	1.11	0.16	2.01	1.97	1.09	3.68	0.91	2.10	2.80	3.17	19.60
Mean: Swaziland Lowveld	3	0.55	0.76	0.82	0.43	1.60	3.93	1.99	3.78	1.90	5.16	3.55	2.64	26.11
General Mean	62	0.80	0.27	3.40	2.23	2.65	3.46	3.98	2.07	3.28	9.86	2.89	3.81	38.70

Further soaking rains continued during March, resulting in a mean monthly rainfall of 10.5 inches, which is the highest March rainfall on record for 42 years. April's rainfall was average but May produced twice the expected rainfall and has therefore reduced the likelihood of plant moisture stress being experienced during the winter months ahead.

Comments on the Climate in General

The winter months were relatively cold, with mean air and soil temperature below the long term averages. Winter came early in the Natal Midlands, sub-zero temperatures at grass level being recorded as early as April, 1968. This was followed by a cold June, when the mean monthly grass minimum temperatures at Muden, Seven Oaks and Windy Hill were sub-zero. Temperatures at Mount Edgecombe were below the long term average right up to November. However, the situation was reversed in December, January and February when mean air and soil temperatures were well above the long term average. It was these hot conditions and the exceptionally high mean daily evaporation rates (Symons tank)—of 0.25, 0.26 and 0.20 inches compared with a long term average of 0.18, 0.19 and 0.18 inches respectively for December, January and February at a time of below average rainfall, that was responsible for a reduction in the growth rate of cane on the coastal belt. However, excellent autumn rains have resulted in good growth recovery and have helped to make up for the moisture stress suffered by the crop during the dry summer months.

TABLE IV—Mean: Maximum (max) and minimum screen temperature

Month	1968																					
	June			July			August			September			October			November			December		
Met. Centres	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo
Umzimkulu	22.2	9.6	0.18	22.5	10.5	0.13	21.9	12.2	0.12	22.2	13.6	0.16	22.3	14.9	0.20	23.7	16.1	0 22	27.8	19.0	0.22
Powerscourt	19.1	7.0	0.14	20.3	8.7	0.13	19.9	10.0	0.12	20.7	11.1	0.15	21.5	12.2	0.17	22.0	13.4	0 17	25.6	16.4	0.23
Illovo	21.7	11.9	0.11	22.1	9.1	0.09	21.1	7.7	0.13	22.6	12.6	0.17	23.4	14.1	0.17	24.1	15.8	0.21	26.7	19.0	0.22
Mt. Edgecombe	20.9	9.4	0.14	22.0	11.0	0.12	21.2	12.1	0.11	21.8	13.9	0.18	22.9	14.6	0.15	23.8	15.2	0.20	27.3	18.6	0.27
Tongaat	21.1	7.3	0.17	22.6	9.0	0.14	21.8	11.1	0.15	22.7	12.7	0.24	23.1	14.3	0.21	23.9	15.9	0.26	27.4	19.4	0.29
Chakas Kraal	22.0	5.7	0.11	23.6	7.7	0.10	23.0	10.9	0.11	23.7	13.2	0.15	24.6	14.6	0.15	25.2	15.8	0.20	28.1	19.4	0.24
Gledhow	21.3	7.9	0.16	22.7	9.8	0.11	21.9	11.7	0.14	22.6	13.1	0.18	23.9	14.6	0.22	24.8	16.4	0.29	28.1	19.7	0.31
Glendale	21.0	6.8	0.12	24.5	7.4	0.10	24.0	10.7	0.11	26.4	12.1	0.14	25.8	13.7	0.17	27.8	15.4	0.19	30.5	19.0	0.25
Doornkop	20.0	10.0	0.18	22.2	11.9	0.16	21.9	12.4	0.16	22.4	13.2	0.20	23.2	14.1	0.19	24.8	15.4	0.23	27 0	18.0	0.25
Amatikulu	21.8	7.5	0.24	24.2	9.1	0.13	24.3	12.6	0.14	24.9	14.0	0.23	26.4	14.8	0.23	27.1	16.7	0.32	29.5	19.0	0.32
Muden	19.1	2.0	0.13	22.0	6.1	0.15	22.1	8.5	0.17	24.3	10.4	0.24	26.8	12.7	0.25	25.9	14.0	0.28	29.1	17.2	0.26
Darnall	21.4	9.4	0.14	23.4	11.5	0.13	22.4	12.9	0.13	23.5	14.0	0.17	24.4	15.6	0.18	25.5	16.3	0.25	28.2	19.3	0.26
Seven Oaks	15.9	2.3	0.17	19.6	5.0	0.18	21.1	7.2	0.20	21.4	7.4	0.19	22.0	10.8	0.23	22.6	11.6	0.21	26.2	13.8	0.23
Windy Hill	17.3	5.5	0.17	19.8	8.3	0.17	19.2	9.2	0.15	22.4	9.6	0.21	21.9	11.5	0.22	22.2	12.4	0.21	26.3	15.4	0.30
Entumeni	19.4	4.0	0.16	21.8	7.9	0.15	21.5	10.3	0.20	22.1	11.1	0.20	23.3	13.0	0.20	24.2	14.3	0.22	26.5	17.2	0.26
Melmoth	19.4	4.5	—	22.7	7.6	0.13	21.3	7.8	—	21.8	9.1	—	23.9	10.9	—	23.4	12.8	—	26.0	16.0	—
Mtunzini	21.1	7.6	0.16	23.4	9.9	0.14	22.5	13.1	0.15	23.9	15.8	0.21	24.6	16.4	0.23	26.2	17.4	0.24	28.7	20.2	0.25
Empangeni	20.7	—	0.21	23.2	—	0.27	22.8	12.1	0.21	24.0	12.9	0.26	26.2	15.6	0.28	25.0	16.8	0.25	28.4	19.7	0.31
River View	21.8	9.9	0.15	23.7	12.4	0.13	23.8	14.0	0.15	24.3	16.1	0.23	26.4	16.5	0.23	26.4	17.4	0.24	30.2	20.9	0.28
Hluhluwe	24.9	11.1	0.13	26.8	12.6	0.13	28.6	12.9	0.15	30.9	15.5	0.22	30.6	16.3	0.21	31.9	18.1	0.22	35.3	21.2	0.33
Pongola	21.2	7.5	0.14	23.9	9.6	0.12	24.2	11.9	0.15	25.7	13.9	0.24	29.3	16.1	0.25	26.7	16.9	0.24	31.8	20.2	0.33
Big Bend	23.0	2.5	0.12	25.8	6.3	0.13	26.1	11.1	0.17	28.1	14.8	0.26	30.0	15.9	0.31	28.0	17.2	0.27	33.2	21.3	0.36
Mhlume Mill	21.9	5.7	0.16	24.9	10.1	0.19	25.2	12.9	0.22	27.4	14.7	0.30	29.4	16.7	0.33	27.2	16.7	0.25	31.8	20.4	0.32
Mhlume	22.9	5.9	0.14	25.7	12.3	0.15	25.8	15.4	0.20	27.2	16.8	0.26	29.7	18.5	0.30	27.6	18.6	0.24	32.0	21.2	0.31
Tenbosch	32.3	6.0	0.15	30.9	7.8	0.16	34.5	11.0	0.19	33.8	13.1	0.27	38.7	15.4	0.30	38.8	16.0	0.25	38.6	19.2	0.30
Mhlati	22.1	5.7	0.14	25.4	7.8	0.15	25.5	10.7	0.17	27.1	12.7	0.24	29.4	15.1	0.27	27.6	16.1	0.22	33.1	19.5	0.28

°C (min), daily evaporation (Eo) in inches from class 'A' pan at 26 centres

1969																Mean daily Eo and screen temperatures for the Year		
January			February			March			April			May						
Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo	Max	Min	Eo		Max	Min	Eo
28.4	20.9	0.25	27.8	21.4	0.27	26.8	19.4	0.17	24.2	15.4	0.14	23.7	13.1	0.19		23.7	15.3	0.19
26.9	17.7	0.26	26.4	17.4	0.28	24.9	14.0	0.16	22.2	9.7	0.12	20.6	6.9	0.10		22.5	12.1	0.17
28.2	20.5	0.27	28.0	20.5	0.21	25.7	19.2	0.21	25.0	16.2	0.16	23.5	13.1	0.13		24.3	14.9	0.17
28.3	9.7	0.28	28.1	21.9	0.24	26.5	19.2	0.16	24.3	16.4	0.15	22.5	13.4	0.12		24.1	15.3	0.18
29.0	20.7	0.34	28.9	20.8	0.27	26.8	19.0	0.21	24.7	15.6	0.17	23.0	12.4	0.14		24.6	14.8	0.22
29.5	20.6	0.27	29.1	20.8	0.24	27.6	19.0	0.16	25.6	15.3	0.13	24.3	11.9	0.10		25.4	14.5	0.16
29.6	21.4	0.33	28.9	21.1	0.38	26.9	19.6	0.27	24.7	15.8	0.23	23.2	12.8	0.14		24.9	15.3	0.23
31.3	20.1	0.24	32.1	20.5	0.22	29.2	18.8	0.16	25.5	15.0	0.11	24.7	11.4	0.12		26.0	13.9	0.16
28.9	19.3	0.28	30.0	19.5	0.23	23.6	17.0	0.20	23.5	15.7	0.14	22.3	13.8	0.12		24.1	14.1	0.20
31.7	21.0	0.26	32.0	22.0	0.32	28.7	19.7	0.22	26.3	16.6	0.18	24.1	13.2	0.13		26.7	15.5	0.22
31.5	18.3	0.33	31.0	18.7	0.31	26.4	15.7	0.19	23.8	12.7	0.15	21.3	8.7	0.12		25.0	12.1	0.21
30.2	20.8	0.30	29.7	21.1	0.25	27.4	19.6	0.20	25.1	17.0	0.17	23.1	13.9	0.13		25.1	15.8	0.19
27.8	15.4	0.27	26.8	14.8	0.32	23.9	13.6	0.20	21.3	11.3	0.15	19.0	8.8	0.11		22.3	10.1	0.21
27.8	16.6	0.30	26.6	15.9	0.21	23.7	14.8	0.20	21.2	12.7	0.16	19.0	9.4	0.13		22.2	11.7	0.20
29.0	18.9	0.37	28.9	18.6	0.24	25.3	17.0	0.19	23.0	13.5	0.15	21.5	10.5	0.10		23.8	13.2	0.20
28.7	17.3	—	29.0	17.7	—	24.2	15.2	0.14	22.7	—	—	20.8	—	—		23.7	11.6	—
31.1	20.5	0.30	31.8	21.3	0.24	27.9	19.3	0.22	25.2	17.0	0.18	23.7	13.5	0.16		25.8	16.0	0.21
32.9	20.8	0.41	33.9	20.6	0.34	27.9	18.7	0.29	25.2	13.8	0.27	23.6	13.4	0.23		25.5	15.4	0.24
32.7	22.0	0.35	32.3	22.5	0.32	28.9	20.4	0.27	26.1	17.9	0.15	24.6	15.0	0.12		26.7	17.1	0.22
38.3	22.8	0.39	38.3	22.8	0.36	34.4	21.1	0.22	32.2	18.3	0.21	28.1	14.6	0.17		31.7	17.2	0.23
32.6	21.6	0.30	32.6	21.4	0.30	29.2	19.4	0.20	25.9	16.6	0.17	23.0	12.1	0.12		27.2	15.6	0.21
33.8	21.4	0.36	34.3	22.2	0.36	30.6	20.2	0.21	28.1	17.3	0.19	25.9	11.5	0.12		28.9	14.9	0.23
34.1	21.3	0.36	33.2	21.4	0.33	29.3	19.5	0.20	26.9	17.1	0.17	24.9	11.8	9.14		28.0	15.7	0.25
33.9	20.6	0.32	33.9	21.1	0.31	29.4	18.9	0.19	27.8	16.1	0.16	25.8	11.0	0.12		28.5	16.3	0.22
39.4	20.9	0.38	39.0	21.2	0.34	39.4	18.9	0.24	37.7	16.3	0.21	36.4	11.1	0.17		36.6	14.7	0.25
34.1	19.8	0.32	32.2	21.4	0.30	29.1	19.4	0.21	28.6	15.9	0.21	26.2	10.6	0.16		28.4	14.5	0.22

TABLE V

Mean: Monthly grass minimum (Min) temperatures in °C, and the number of days on which sub-zero temperatures were recorded at 7 centres.

	1967												1968									
Months	June		July		August		September		October		November		December		January		February		March		April		May	
Met. Centres	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero
Tenbosch	x	x	8.0	—	9.5	—	12.0	—	13.8	—	17.0	—	18.1	—	19.9	—	19.1	—	17.7	—	13.6	—	9.7	—
Pongola	5.8	—	2.9	—	7.0	—	10.0	—	13.4	—	14.9	—	15.9	—	18.4	—	16.9	—	15.9	—	11.8	—	8.2	—
Doornkop	8.0	—	6.0	—	9.0	—	10.9	—	12.7	—	15.7	—	15.5	—	18.0	—	18.0	—	15.4	—	11.0	—	8.5	—
Muden	1.6	4	1.9	14	6.5	2	8.8	—	11.5	1	13.9	—	15.1	—	16.4	—	14.3	—	14.3	—	7.8	—	4.0	—
Seven Oaks	0.2	12	−1.8	23	2.9	3	6.2	—	7.7	—	12.1	—	11.9	—	13.6	—	12.0	—	9.9	—	6.2	6	2.9	4
Windy Hill	2.2	8	1.1	12	4.7	2	7.9	—	8.5	—	12.4	—	13.3	—	14.4	—	13.1	—	12.6	—	5.2	2	4.7	—
Mt. Edgecombe	6.9	—	5.2	—	7.3	1	8.6	—	11.4	—	12.1	—	16.9	—	18.4	—	17.4	—	16.9	—	12.2	—	10.5	—

x=data unavailable

	1968												1969									
Months	June		July		August		September		October		November		December		January		February		March		April		May	
Met. Centres	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero	Min	No. of days sub-zero
Tenbosch	5.0	—	7.8	—	6.9	—	8.2	—	13.6	—	14.3	—	18.0	—	20.7	—	20.7	—	18.2	—	15.3	—	9.7	—
Pongola	2.6	3	5.1	3	6.8	—	9.5	—	11.5	—	13.7	—	18.1	—	14.5	—	17.9	—	17.3	—	13.2	—	8.3	—
Doornkop	3.5	1	6.5	—	9.0	—	10.4	—	12.0	—	13.3	—	17.0	—	18.2	—	18.6	—	16.3	—	13.3	—	5.0	—
Muden	−3.3	25	2.0	8	5.1	2	7.5	—	10.3	—	12.0	—	15.6	—	15.8	—	16.7	—	13.7	—	10.1	—	5.5	—
Seven Oaks	−1.9	21	1.5	9	3.2	7	7.2	5	7.6	2	9.1	2	12.5	—	13.6	—	13.2	—	11.9	—	8.5	—	6.3	8
Windy Hill	−1.5	22	1.8	5	5.8	1	6.1	3	8.9	1	9.9	1	13.4	—	13.7	—	14.0	—	13.1	—	9.8	—	5.4	—
Mt. Edgecombe	5.6	—	6.4	—	8.8	—	10.4	—	11.5	—	13.9	—	17.7	—	18.4	—	19.7	—	17.4	—	13.4	—	9.3	—

TABLE VI

Mean daily screen temperature in °C, soil temperatures in °C at 08.00, relative humidity % (means of 08.00 and 14.00 data), sunshine hours/day, run of wind in miles per day, evaporation in inches/day and monthly rainfall in inches for the year June, 1968 to May, 1969 at Mount Edgecombe Experiment Station, and the corresponding long term means.

Year	June, 1968—May, 1969												Long term means							
Months	Max. screen temp.	Min. screen temp.	Mean screen temp.	Soil temperatures 1′	Soil temperatures 2′	Soil temperatures 4′	Relative humidity %	Sunshine	Run of wind	Evaporation Class 'A' Pan	Evaporation Symons tank	Rainfall	42 years mean screen temp.	35 years soil temperatures 1′	35 years soil temperatures 2′	35 years soil temperatures 4′	42 years relative humidity %	42 years sunshine hours per day	34 years Symons tanks evaporation in inches	44 years rainfall
June	20.9	9.8	15.4	16.0	17.5	18.5	53.0	7.9	110.1	0.14	+	0.26	17.1	17.6	19.0	20.7	61.0	7.3	0.08	1.47
July	22.0	11.0	16.5	17.1	17.8	18.2	61.5	7.0	76.3	0.12	0.10	0.07	16.5	16.9	17.9	19.3	60.9	7.3	0.08	1.01
August	21.2	12.1	16.7	17.5	18.0	18.4	70.0	5.5	103.6	0.11	0.10	4.42	17.5	18.1	18.6	19.2	65.4	7.1	0.10	1.46
September	21.8	13.9	17.9	19.8	19.6	19.4	71.5	6.2	+	0.18	0.15	2.34	18.8	19.9	20.1	20.0	67.3	6.3	0.12	2.11
October	22.9	14.6	18.8	21.1	21.0	20.8	72.0	5.1	123.7	0.15	0.14	3.35	20.0	21.5	21.5	21.1	69.9	5.5	0.14	3.30
November	23.8	15.2	19.6	22.4	22.0	21.6	73.0	5.7	+	0.20	0.17	2.40	21.3	23.1	22.9	22.4	70.9	5.4	0.16	4.11
December	27.3	18.6	23.0	26.5	25.2	23.8	72.5	6.5	+	0.27	0.25	1.87	22.7	24.8	24.5	23.5	71.1	5.9	0.18	4.24
January	28.3	19.7	24.0	27.4	26.3	25.1	72.0	7.3	160.3	0.28	0.26	1.56	23.4	26.0	25.9	24.7	72.1	6.1	0.19	4.50
February	28.1	20.9	24.5	27.6	26.8	25.8	75.5	6.3	144.8	0.24	0.20	4.39	23.7	26.4	26.3	25.4	73.7	6.6	0.18	4.25
March	26.5	19.2	22.9	25.8	25.7	25.4	79.5	5.8	+	0.16	0.15	9.73	22.9	25.6	25.9	25.5	75.1	6.5	0.15	4.52
April	24.3	16.4	20.4	23.0	23.6	23.8	76.0	5.3	107.2	0.15	0.13	2.10	21.1	23.6	24.3	24.6	71.8	6.9	0.12	2.90
May	22.5	13.4	18.0	19.9	21.0	21.6	72.9	5.8	81.8	0.12	0.10	4.01	19.0	20.6	21.7	22.8	67.5	7.1	0.09	1.85

+ Incomplete Records