

DECEMBER, 1875.

PRIVATE OBSERVATORY, HOBART TOWN.

Day of Month.	Bar. 37ft abv sea level, corrected and reduced.		Self-registering Thermometers.				Wind.		
	Highest.	Lowest.	Highest in Shade.	Lowest in Shade.	Highest in Sun	Lowest on Grass.	Direction from three daily registers.	Force in lbs. per square foot.	Rain in Inches.
	In.	In.			°				
1	29·164	28·979	68	44	99·0	40·0	NW	1·04	0·15
2	29·612	29·520	63	45	101·5	40·0	SW SE	12·92	0·40
3	29·770	29·487	68	47	107·0	42·5	SW NE	13·54	0·09
4	29·435	29·351	66	48	103·0	43·5	NW SW	13·02	0·16
5	29·333	29·257	66	43	104·0	41·5	NW SW	5·72	0·05
6	29·244	29·133	67	45	100·5	40·0	NW SE	5·72	0·05
7	29·233	29·255	62	40	98·0	37·0	NW SE	·26	0·05
8	29·771	29·641	61	46	98·0	42·5	SE	5·72	0·82
9	29·834	29·800	72	40	110·0	37·5	NW SE	·52	0·02
10	29·929	29·924	68	52	82·5	44·0	SE	·78	0·02
11	29·874	29·777	63	48	72·0	43·0	NW S	0·	0·25
12	29·738	29·624	63	48	68·0	42·5	SW S	·52	0·58
13	29·430	29·377	67	49	92·5	41·5	SE S	·52	1·80
14	29·680	29·552	61	51	95·5	45·0	SW SE	3·12	0·28
15	29·839	29·821	59	49	85·5	44·5	N SE	·52	0·02
16	30·029	30·016	64	50	97·5	45·0	SE S	·78	0·08
17	30·267	30·215	70	48	110·0	44·5	SE	·52	
18	30·165	30·116	77	51	114·0	45·0	N SE	1·04	
19	30·152	30·105	84	57	112·5	50·5	NW	0·	
20	30·289	30·223	83	56	111·0	50·5	NW SE	·52	
21	30·240	30·166	95	60	130·0	51·0	W SE	·52	
22	30·111	29·909	88	53	122·0	50·0	NW N	·78	
23	29·799	29·637	89	57	119·0	51·5	W N	1·30	0·01
24	29·671	29·630	77	63	112·5	58·0	SW SE	3·38	0·01
25	29·653	29·625	73	61	110·0	57·0	SE	·26	0·06
26	29·559	29·510	71	58	71·5	54·5	SE S	·26	
Monthly mean	29·737		63·85	101	45·52	Total Force...	75·46	9·00	

The mean in all cases is taken from the sums of the three daily registers, and not from the maximum and minimum.

The direction of the wind is registered from currents moving at a height of 192 feet and the force according to Lind's Wind Gauge. The supposition, however, of a uniform velocity during the month is a very arbitrary one, and the results can be considered only approximately correct.

The relations of the quantities of rain which fell under the different winds are registered each evening at sundown.

The 30 years' standard tables are used for obtaining the difference from the average.

Barometer mean, 29·737in., being 0·01in. below the average.

Temperature mean, 63·85°, being 2·66° above the average.

Solar intensity mean, 101°, being 3·82° below the average.

Dew Point mean, 53·8°, being 4·80° above the average.

Humidity of air mean, 71, being 7·04 per cent. above the average.

Elastic force of vapour mean, 426, being 7·073 above ditto.

Total amount of rain, 9in., being 7·19in. above ditto.

Increase of rainfall on spontaneous evaporation, 4·09.

Mean amount of Ozone, 4·08, being 2·03 of chromatic scale below ditto.

The above abstract is taken from a series of records which have extended over the last 35 years without intermission. Results of these observations for 30 years, embodying all the elements usually recorded hitherto, have been previously published by the Royal Society of Tasmania in three separate parts. It has now, however, been determined to commence a new series of observations more in accordance with forms which have recently been adopted for Meteorological purposes.

FRANCIS ABBOTT

Leafing, Flowering, and Fruiting of a few Standard Plants in the Royal Society's Gardens during the month.

- 20th.—Common Privet commencing to flower.
 24th.—First bunch Red Currants ripe.
 30th.—Ditto Black ditto ditto.
 31st.—*Melia Azederach* commencing to flower.
 „ —Doyenne d'Ete Pear ripe.
 „ —Juneating Apple commencing to ripen.

Results of observations taken at New Norfolk during the month :—

Barometer, mean of three daily readings, corrected and reduced, 29·713in.
 Thermometer, mean of 3 daily readings, 61·30°.
 Solar intensity mean of maximum temperature, 123·54.
 Terrestrial Radiation, mean of minimum temperature, 44·06.
 Dew point mean position of, 3 daily readings, 51·50.
 Elastic force of vapour of ditto, ·379.
 Humidity of ditto, ·70.
 Rainfall, 5·91 inches, in excess of evaporation, ·61in.
 Evaporation, 5·30in.
 Cloud, mean amount of three daily registers, 6·08.
 Ozone, two ditto, 6·88.
 Wind, total force in lbs. per square foot, 84·47lbs.
 Ditto, horizontal movement, 2,883 miles.
 Electricity, 47 observations, 26 negative, 11 positive, 10 nil.

W. E. SHOOBRIDGE,

Valleyfield.

Rainfall at Hill Station, 1,550ft. above sea level, 10·12in.

MONTHLY MEANS OF OBSERVATIONS TAKEN AT NEW NORFOLK FOR 1875.

Latitude, 42° 46' 48" S.

Longitude, 147° 4' 45" E.

Months.	Barometer.	Thermometer.				Humidity of Air.			Condensation		Evaporation.	Ozone.	Clouds.	Winds.	
	At Temperature 32°.	Mean Temperature.	Mean Diurnal Range.	Mean Solar Intensity.	Mean Terrestrial Radiation.	Dew Point Mean Position.	Humidity of Air per 100.	Elastic Force of Vapour per 1000.	Rain in Inches.	No. of days on which Rain fell.	Spontaneous Evaporation in Inches.	Mean Daily Amount	Mean Daily Amount.	Prevailing Direction.	Force in lbs. per square foot.
January	29.738	63.39	26.30	131.50	44.40	48.92	.64	.362	1.57	10	6.90	7.70	4.30	W SE	111.42
February	29.969	64.33	25.70	131.42	44.74	52.80	.69	.415	1.97	7	5.72	7.35	4.51	W	52.40
March	30.088	61.57	26.30	129.00	43.41	51.30	.72	.388	.58	9	5.32	7.40	5.27	W SE	121.87
April	29.979	55.30	22.66	116.30	37.30	49.40	.83	.357	1.88	11	2.09	6.61	5.41	W NW	46.93
May	29.890	49.95	16.25	106.61	36.19	46.90	.91	.335	2.48	17	1.97	7.70	7.11	W NW	69.63
June	29.855	47.07	17.36	101.70	32.50	42.80	.86	.290	1.57	10	1.13	7.40	5.87	W NW	38.87
July	30.056	45.27	18.60	101.48	29.29	41.10	.87	.262	1.48	14	1.41	7.40	5.70	W	39.88
August	29.771	47.75	19.00	105.00	32.12	38.50	.73	.233	1.93	12	2.73	7.46	5.87	W	70.80
September	29.947	49.25	21.89	115.30	32.30	39.10	.69	.240	2.37	18	4.64	7.58	5.06	W SW	75.96
October	29.763	54.35	19.83	118.64	37.61	44.41	.68	.286	3.20	19	5.25	7.38	5.70	W	68.48
November	29.587	56.00	21.66	121.60	38.36	45.21	.66	.299	3.23	25	5.90	7.01	5.84	W SE	102.00
December	29.713	61.30	20.51	123.54	44.06	51.50	.70	.379	5.91	21	5.30	6.88	6.08	SE W	84.47
Sums.....	358.356	655.53	256.06	1402.09	452.28	551.94	8.98	3.846	28.17	173	48.36	87.87	66.72		882.71
Mean for 1875.....	29.863	54.62	21.33	116.84	37.69	45.99	.75	.320	2.34	14.41	4.03	7.31	5.56	W SE	73.56
Mean for 1874.....	29.912	54.90	18.47	*115.5	40.67	49.31	.83	.362	1.75	11.3	3.55	7.71	5.95	W SE	†83.8

* Mean of 3 months. † Mean of 6 months. Total Rainfall, 1874, 23.04in. Evaporation, 42.62in.

W. E. SHOBRIDGE.