

Report to the directors of the Aylesbury Dairy Company, Limited, on the work done in the Company's Laboratory during 1886.

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REPORT

TO THE DIRECTORS OF

THE AYLESBURY DAIRY COMPANY, LIMITED,

ON THE

Work done in the Company's Laboratory during the year

1886.

Although the work of the Laboratory has been conducted during the year 1886 on the same lines as in former years, it has been my endeavour to extend its range and thereby to more completely carry out the object for which it was established, and to generally increase its usefulness.

The number of the Analyses made has again increased, as will be seen by the following figures :—

In 1881	..	8,817	Analyses	were	made.
„ 1882	..	12,430	„	„	
„ 1883	..	15,005	„	„	
„ 1884	..	15,773	„	„	
„ 1885	..	17,896	„	„	
„ 1886	..	18,862	„	„	

In addition to the number of Analyses, about 200 specific gravity determinations were made daily, and in all Milk samples analysed the specific gravity was also determined, so that a total of some 80,000 were made during the year 1886.

The Analyses may be arranged under different heads as follows :—

MILK.—Samples taken from the railway churns	12,181
" " by the Company's Inspectors from the men	4,135
" " on the platform, St. Petersburg Place.. .. .	776
" sent in by customers	81
Sundries	96
	————— 17,269
CREAM.—Samples taken on arrival	226
" " before being sent out.. .. .	448
" " by the Company's Inspectors from the men	349
" " on the platform, St. Petersburg Place	3
" sent in by customers	23
" of Clotted Cream	21
Sundries	12
	————— 1,082
SKIM MILK.—Ordinary Samples	336
Sundries	19
	————— 355
BUTTERMILK.—Ordinary Samples	32
Sundries	2
	————— 34
BUTTER AND BUTTER-FAT	27
CHEESE	10
MILK PREPARATIONS.—Koumiss	23
Artificial Human Milk	3
Peptonized Milk	3
Special Milk Food for Infants	3
Whey	10
Buttermilk.. .. .	6
	————— 48
WATER	13
SUNDRIES	24
	—————
Total	18,862
	—————

The following remarks refer to the part of the work which is of especial importance and most general interest.

MILK.—Samples of Milk from every farmer supplying the Company were analysed daily. The monthly averages of these analyses are given in Table I.

TABLE I.
AVERAGE COMPOSITION OF MILK.

1886.	SPECIFIC GRAVITY.	FAT. Per cent.	SOLIDS (N. FAT) Per cent.	TOTAL SOLIDS. Per cent.
January	1·0322	3·77	9·10	12·87
February	1·0322	3·73	9·10	12·83
March	1·0323	3·69	9·09	12·78
April	1·0321	3·70	9·05	12·75
May	1·0323	3·71	9·09	12·80
June	1·0322	3·70	9·08	12·78
July	1·0318	3·69	8·98	12·67
August	1·0319	3·74	9·03	12·77
September	1·0321	3·89	9·09	12·98
October	1·0321	4·11	9·15	13·26
November	1·0322	4·14	9·18	13·32
December	1·0324	4·06	9·21	13·27
Yearly Average..	1·0322	3·83	9·09	12·92

The Table clearly shows that the high average quality, by which the Milk supplied by THE AYLESBURY DAIRY COMPANY has always been distinguished, was fully maintained during last year.

The number of samples sent in for examination by customers has been smaller than in any of the preceding years, a clear indication of their continued and increasing satisfaction.

CREAM.—“Samples taken on arrival” refer to Cream as supplied by farmers on contract during the early part of the year, and to Cream received from the Company’s own Farms near Horsham.

Of the Cream as supplied to customers, samples were taken regularly twice a day—morning and afternoon delivery. The average amount of “fat” in these samples is shewn by the following Table II.

TABLE II.

AVERAGE AMOUNT OF FAT IN CREAM.

1886.	FAT. Per cent.
January	42.1
February.....	43.5
March	45.4
April.....	45.7
May	45.0
June.....	42.6
July	41.7
August.....	43.3
September	45.1
October	46.0
November	45.0
December	44.2
Yearly Average.....	44.2

These figures prove that an exceedingly rich Cream has been supplied to the customers throughout the year.

As was the case with Milk, so Cream samples sent in by customers for examination were less in number than in

preceding years, again indicating that the increased control exercised by the Company is appreciated.

Samples of SKIM MILK were frequently taken and analysed for the purpose of exercising a control over the work of separating Cream from Milk. The amount of "fat" left in the Skim Milk was, with few exceptions, very small, proving that the Cream Separators did their work well, and that they were properly attended to.

In the BUTTERMILK samples there was generally more "fat" present than there ought to have been, a consequence, I believe, of the extremely rich quality of the Cream churned.

The average composition of KOUMISS AND OTHER MILK PREPARATIONS FOR INFANTS AND INVALIDS, calculated from analyses made in 1886 and preceding years, were published in July last, for the information of the Members of the Medical Profession.

The samples of WATER examined were taken on farms, the occupiers of which had entered into negotiations with a view of supplying the Company with Milk.

In last year's Report I gave a summary of the temperature observations which were commenced in the early part of the year 1881. The observations were continued with the greatest regularity and punctuality during last year. The following Table III. contains the monthly averages of minimum and maximum temperatures; further, the actual minima and maxima in each month, and the dates on which they were observed.

TABLE III.
TEMPERATURE OBSERVATIONS.

1886.	AVERAGE.		LOWEST MINIMUM.	DATE.	HIGHEST MAXIMUM.	DATE.
	MINIMUM.	MAXIMUM.				
January	33·6	42·4	22	8	52	2
February	31·4	40·1	23	10	49	13
March	36·0	47·0	25	7	62	24
April	41·4	54·8	34	12	66	24
May	46·8	61·5	34	1	73	7
June	51·1	67·2	43	5	77	29
July	56·2	71·7	46	28	84	4
August	52·8	71·3	47	3	87	30
September	54·4	66·7	45	23	81	1
October	49·6	59·9	41	22	75	4
November	41·5	50·0	32	23	58	1
December	33·9	43·2	22	20	54	6
	44·1	56·1	22	—	87	—

The yearly averages, lowest minima and highest maxima, observed in former years were as follows:—

TABLE IV.
TEMPERATURE OBSERVATIONS, 1882—1885.

YEAR.	AVERAGE.		LOWEST MINIMUM.	HIGHEST MAXIMUM.
	MINIMUM.	MAXIMUM.		
1882	45·4	57·0	23	78
1883	44·9	56·7	24	82
1884	46·2	58·1	28	88
1885	44·0	56·0	25	85

I must not omit to remark that the registering thermometer used for the observations is protected against the direct influence of the sun, and that the observations, which are carried out in the closed yard of the Bayswater premises, do not represent the extreme differences of temperature generally.

January 11th, 1887.

P. VIETH.

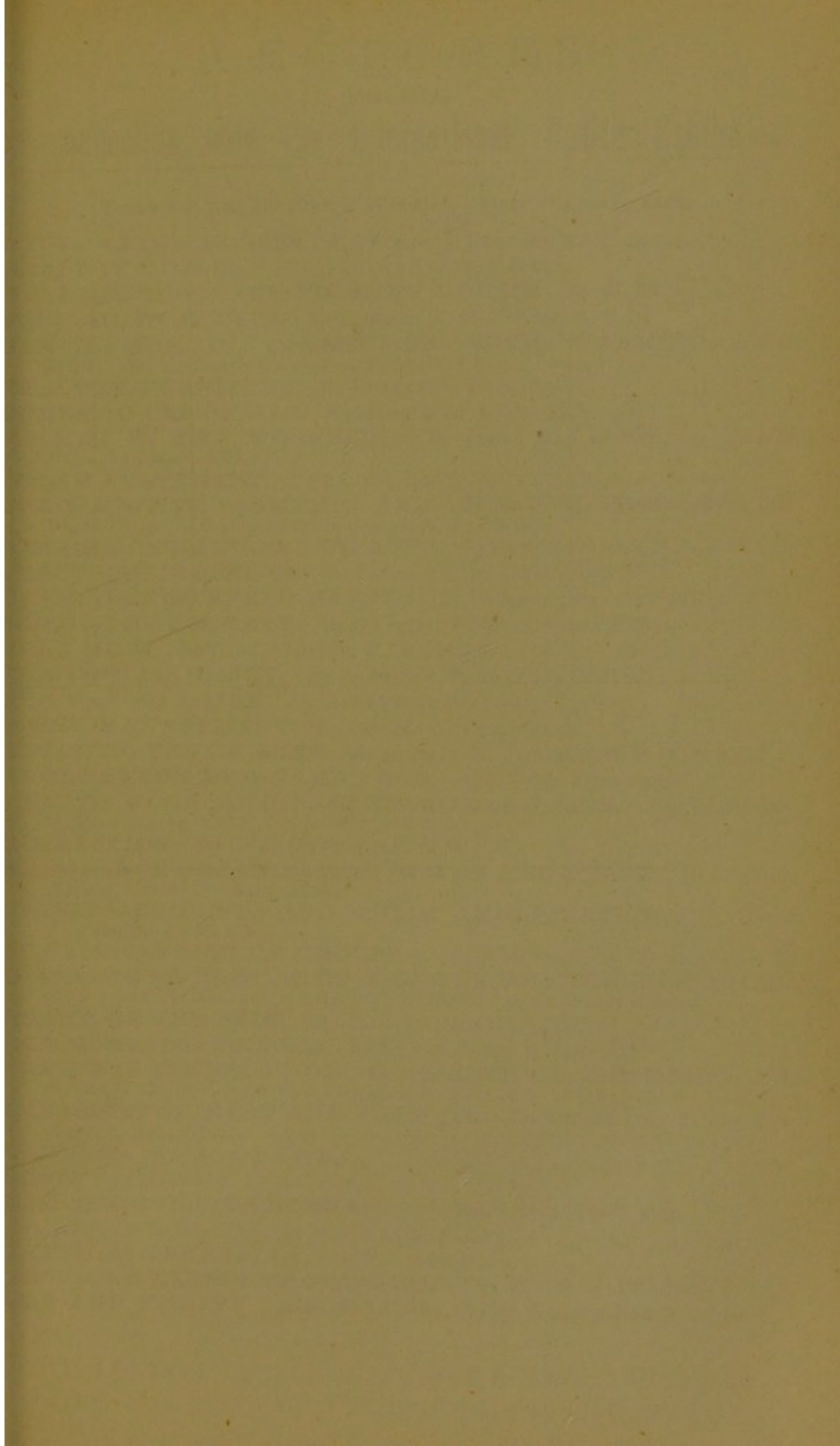


TABLE IV

Summary of Observations

Date	Temperature		Wind	Direction	Remarks
	Barometric	Surface			
January	30.2	45.1	10	S	
February	30.1	44.8	12	SE	
March	30.0	44.5	15	E	
April	29.9	44.2	18	SE	
May	29.8	43.9	20	E	
June	29.7	43.6	22	SE	
July	29.6	43.3	25	E	
August	29.5	43.0	28	SE	
September	29.4	42.7	30	E	
October	29.3	42.4	32	SE	
November	29.2	42.1	35	E	
December	29.1	41.8	38	SE	

The above observations were taken at the station during the period of the observations.

TABLE V

Summary of Observations

Date	Temperature		Wind	Direction	Remarks
	Barometric	Surface			
1901	30.1	44.7	11	S	
1902	30.0	44.4	13	SE	
1903	29.9	44.1	16	E	
1904	29.8	43.8	19	SE	

The above observations were taken at the station during the period of the observations.

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