

University of Cambridge
Department of Agriculture

Farm Economics Branch

Report No. 16

(Issued August, 1930)



No. 3

Sugar Beet in the
Eastern Counties
1929

Being the Final Report on an Investigation into the Financial
Results of Sugar Beet Growing, and the Principal Factors
Influencing Them, during the Three Seasons 1927, 1928 and
1929, with Particular Reference to the Latter Year.

BY

C. BURGESS, M.A., DIP. AGRIC. ECON.

AND

P. E. GRAVES

FER & SONS LTD., CAMBRIDGE

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DIAGRAM I.

Distribution of the Costed Fields during the three years 1927, 1928 and 1929,
in relation to the Factories.



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FARM ECONOMICS BRANCH, 1930

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Table of Contents

	<i>Page</i>
ACKNOWLEDGMENTS - - - - -	ix
CHAPTER I.	
1. INTRODUCTION - - - - -	1
2. THE SAMPLE - - - - -	2
CHAPTER II.	
1. FIELD DATA - - - - -	4
2. MANURING - - - - -	6
3. YIELD, TARE, SUGAR CONTENT AND TOPS - - - - -	8
4. SOIL CLASSES - - - - -	10
CHAPTER III.	
1. INFLUENCE OF TIME OF DELIVERY UPON SUGAR CONTENT - - - - -	14
2. WEATHER CONDITIONS - - - - -	18
3. HAULAGE AND TRANSPORT - - - - -	21
CHAPTER IV.	
1. OVER-ALL COSTS PER ACRE AND PER TON - - - - -	24
2. OVER-ALL RECEIPTS AND PROFITS PER ACRE AND PER TON - - - - -	27
3. RESULTS GROUPED ACCORDING TO SOIL TYPE - - - - -	30
CHAPTER V.	
1. FACTORS AFFECTING COSTS AND RETURNS - - - - -	34
(a) Farm-yard Manure - - - - -	34
(b) Subsoiling - - - - -	35
(c) Farm-yard Manure and Subsoiling - - - - -	35
(d) Preceding Crop - - - - -	36
(e) Rate of Seeding - - - - -	37
(f) Date of Drilling - - - - -	38
(g) Distance between Drills - - - - -	39
(h) Ridge and Flat Work - - - - -	40
(i) Nitrogenous Manuring - - - - -	40
(j) Phosphatic Manuring - - - - -	42
(k) Potassic Manuring - - - - -	43
CHAPTER VI.	
1. SEASONAL DISTRIBUTION OF LABOUR ON SUGAR BEET - - - - -	45
2. QUANTITATIVE REQUIREMENTS - - - - -	49
3. THREE YEARS' ACHIEVEMENTS - - - - -	49
4. CONCLUSION - - - - -	50

List of Diagrams

	<i>Page</i>
I. Distribution of the Costed Fields during the three years 1927, 1928 and 1929, in relation to the Factories <i>Frontispiece</i>	
II. Effect of Time of Delivery on Sugar Content in 1927, 1928 and 1929 - - - - -	15
III. Mean Daily Temperature as recorded at Cambridge during the Harvesting Period in 1927, 1928 and 1929 - -	20
IV. Frequency Distribution of Gross Cash Receipts - -	28
V. Frequency Distribution of Cash Profits and Losses - -	29
VI. Seasonal Distribution of Labour required for 10 acres of Sugar Beet - - - - -	46
VII. Seasonal Distribution of Labour required for 10 acres of Mangolds - - - - -	47
VIII. Seasonal Distribution of Labour required for 10 acres of Wheat - - - - -	48

List of Tables

1. Comparison of Major Characteristics of Farms costed during each year with Normal Conditions - - - - -	2
2. County Distribution of the Costed Area - - - - -	3
3. Soil Grouping of Costed Area - - - - -	11
4. Yield Data in different Soil Groups - - - - -	12
5. Average Estimated Yield of Tops in each Soil Group in 1927, 1928 and 1929 - - - - -	13
6. Frequency Distribution of Sugar Decimal Numbers - -	18
7. Air Temperatures recorded at Cambridge during the 1929 Growing and Harvesting periods - - - - -	20
8. Rainfall and Sunshine recorded at Cambridge during the 1929 Growing and Harvesting periods - - - - -	20
9. Cost per Unwashed Ton of Haulage and Transport by Road, Rail and Water in 1929 - - - - -	21
10. Cost per Unwashed Ton-mile of Haulage and Transport by Road, Rail and Water in 1929 - - - - -	22
11. Over-all Average Costs and Returns per Acre - - -	25

List of Tables— <i>continued</i>		Page
12.	Average Costs and Returns per Acre for Three Years combined and arranged in Soil Groups - - - - -	32
13.	Average Costs and Returns per Washed Ton for Three Years combined and arranged in Soil Groups - - - - -	33
14.	Influence of Farm-yard Manure - - - - -	34
15.	Influence of Subsoiling - - - - -	35
16.	Influence of Farm-yard Manure and Subsoiling - - - - -	36
17.	Influence of Preceding Crop - - - - -	36
18.	Influence of Rate of Seeding - - - - -	37
19.	Influence of Date of Drilling - - - - -	38
20.	Influence of Distance between Drills - - - - -	39
21.	Comparison of Ridge with Flat Work - - - - -	40
22.	Influence of Nitrogenous Manuring - - - - -	41
23.	Influence of Phosphatic Manuring - - - - -	42
24.	Influence of Potassic Manuring - - - - -	43
25.	Influence of Excessive Potassic Manuring - - - - -	44
26.	Labour Requirements per 10 acres of Crop, excluding Labour on Manuring and Threshing - - - - -	45
27.	Quantitative Requirements per Acre on Light to Medium Soil in 1929 - - - - -	49
28.	Costs and Returns per Acre on 44 Farms Costed for Three Consecutive Years - - - - -	50

List of Appendices

A.	General Economic Data, 1929 - - - - -	54
B.	Field Data, 1929 - - - - -	56
C.	Yield Data, 1929 - - - - -	59
D.	Organic Manures and the Manurial Equivalents of Artificials per Acre applied direct to the 1927, 1928 and 1929 Sugar-Beet Crop	62
E.	Table I. Average Yields, Costs and Returns per Acre in 1927 arranged in Soil Groups - - - - -	65
„	II. Average Yields, Costs and Returns per Acre in 1928 arranged in Soil Groups - - - - -	66
„	III. Average Yields, Costs and Returns per Acre in 1929 arranged in Soil Groups - - - - -	67

List of Appendices—<i>continued</i>		<i>Page</i>
E. Table	IV. Average Yields, Costs and Returns per Acre for Three Years, 1927, 1928 and 1929, combined and arranged in Soil Groups - - - -	68
„	V. Average Costs and Returns per Washed Ton in 1927, arranged in Soil Groups - - - -	69
„	VI. Average Costs and Returns per Washed Ton in 1928 arranged in Soil Groups - - - -	69
„	VII. Average Costs and Returns per Washed Ton in 1929 arranged in Soil Groups - - - -	70
„	VIII. Average Costs and Returns per Washed Ton for Three Years, 1927, 1928 and 1929, combined and arranged in Soil Groups - - - -	70

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ONLY those who have an intimate knowledge of time-sheet costing methods can appreciate the sacrifice of time and care which an investigation of this type, on a large scale, demands from those who undertake to provide the fundamental material. During the last three seasons one hundred and fifty-two Eastern Counties farmers have, for varying periods, supplied the Department with detailed particulars of the costs of production and circumstances surrounding the growing of five hundred and thirty fields of Sugar-Beet. The mass of information which has thus accumulated at the Department, amounting to over ten thousand completed forms of varying descriptions, bears testimony to the labour involved. Without liberal support of this nature, which has been given frequently at those periods of the farming year which make it most costly, this investigation could not have been carried out, and these growers, at least, have responded to and justified the Sugar-Beet Subsidy Act. The industry in general owes them thanks, and the Department is most grateful for their assistance.

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APPENDIX A.

GENERAL ECONOMIC DATA, 1929.

Farm Number.	General Description of Soil.	Total Acreage.	% Arable.	Rent and Rates per Acre.	Density per 100 Acres*		Number of Tractors.†	Total Beet Grown expressed as a % of Total Arable.					1929 Beet Crop actually Costed.		Factories Supplied.	Approximate Road Distance (Miles) to Factory.
					Labour.	Horses.		1925	1926	1927	1928	1929	Number of Fields.	Acres.		
502	Sandy loam ..	689	86	24/0½	3-4	2-7	1	13-8	16-1	18-7	16-4	15-1	5	90½	Bury ..	2.
504	Light loam ..	465	86	21/4	3-0	1-7	1	7-5	16-0	32-5	28-5	22-1	3	52	Bury ..	44.
505	Light mixed ..	236	58	22/9	2-5	2-5	—	—	3-7	4-4	5-9	7-3	2	10	Bury ..	30.
507	Very light ..	602	88	11/5½	4-0	3-3	1	5-3	8-7	11-7	23-3	24-9	6	131½	Bury, Ely and Ipswich.	4, 40, 25.
507A	Clay loam ..	120	100	15/2	3-3	3-3	—	—	—	—	—	12-5	1	15	Bury ..	6.
508	Strong loam ..	1015	75	31/5½	4-5	3-4	—	2-1	5-2	7-8	10-5	13-2	2	35	Bury ..	11.
510	Gravel loam ..	280	54	23/6½	3-6	2-9	—	5-3	11-3	18-0	18-7	22-0	3	33	Bury and Ipswich	23, 23.
520	Sand and warp ..	242	66	46/8½	3-5	3-7	1	3-8	3-8	3-8	1-4	2-5	1	4	Brigg ..	12.
523	Fen ..	600	88	33/-	3-0	2-8	3	3-4	3-4	8-8	5-9	15-2	4	53	Bardney and Brigg	4, 25.
524	Medium loam ..	350	80	28/6½	2-6	2-3	—	3-2	3-2	5-0	2-1	3-4	1	9½	Bardney ..	6.
526	Mixed loam ..	144	79	36/2	3-5	4-9	—	8-8	10-5	14-0	14-9	15-8	3	18	Cantley ..	14.
536	Strong loam ..	150	87	27/10½	5-3	3-3	1	7-5	7-5	9-6	11-5	55-4	3	17½	Ipswich and Cantley.	25, 35.
539	Gravel loam ..	178	64	33/7½	5-6	2-8	1	—	1-8	2-6	6-1	9-2	1	10½	Peterborough ..	29.
542	Loam on clay ..	380	68	32/10½	5-8	2-6	1	4-6	6-9	6-9	9-6	7-3	2	19	Cantley ..	21.
543	Fen ..	1411	96	48/6	5-7	5-0	3	11-8	11-8	12-5	15-4	11-0	1	15	Ely ..	8.
544	Gravel loam ..	500	60	26/7½	2-0	1-8	1	2-7	6-0	6-0	6-0	11-5	2	34½	Peterborough and Spalding.	13, 16.
551	Sewage farm on sand	300	83	27/1½	4-0	3-3	—	6-0	9-2	13-8	18-8	21-6	5	54	Kelham, Colwick and Bardney.	11, 25, 30.
553	Very mixed ..	800	75	25/8½	2-0	1-9	—	—	2-3	2-3	1-7	1-6	4	9½	Bardney and Kelham.	6, 20.
554	Gravel ..	73	96	23/6½	4-1	4-1	—	2-9	5-7	8-6	8-6	8-2	1	6	Bardney ..	6.
556	Gravel loam ..	70	69	33/6½	4-0	4-3	—	—	7-3	16-7	31-3	20-8	1	4	Kelham and Bardney.	20, 5.
557	Sandy loam and clay	400	65	20/10	5-0	3-7	1	2-2	4-1	5-5	6-8	9-6	2	26	Cantley ..	16.
560	Black fen ..	144	100	47/11	4-2	4-2	1	—	3-5	3-8	13-9	13-9	1	12	Peterborough ..	4.
562	Medium to heavy	95	68	43/5½	3-2	4-2	1	—	3-1	6-2	3-1	3-1	1	2	Peterborough ..	8.
566	Fen ..	44	77	71/7½	4-6	4-6	—	5-9	17-6	26-5	35-3	41-2	1	8	Peterborough and Spalding.	8, 11.
567	Limestone ..	1353	19	21/3½	0-9	1-0	—	—	2-2	4-4	2-2	5-5	1	14	Peterborough ..	8.
568	Medium fen ..	196	87	70/8½	5-1	4-6	—	8-8	8-8	8-8	20-0	30-6	4	52	Ely, Peterborough and Spalding.	24, 22, 24.
578	Light loam ..	200	80	33/0½	4-0	4-0	—	3-1	5-0	6-3	6-3	6-3	1	10	Cantley ..	15.
583	Sewage farm on sand	541	55	29/5	3-1	2-2	1	5-1	5-1	11-5	19-5	19-5	5	68	Cantley ..	14.
584	Light loam on chalk	750	95	22/1½	4-8	5-1	—	2-8	5-6	3-4	5-6	3-9	1	23	Bury ..	34.
586	Light loam ..	1179	21	13/4½	1-8	0-7	—	7-3	—	4-9	7-3	7-8	1	19	Bury ..	14.
589	Silt loam ..	400	90	35/6	6-2	4-0	1	2-8	6-9	8-3	2-8	6-9	1	15	King's Lynn	17.
590	Skirt ..	50	76	34/0½	2-0	4-0	—	—	5-3	5-3	15-8	31-6	2	12	Bury ..	20.
591	Very light ..	999½	22	13/7½	1-0	1-0	1	8-2	13-6	22-7	13-6	9-1	4	20	Ipswich ..	18.
592	Gravel loam ..	137	62	32/7½	2-9	2-9	—	9-4	9-4	12-9	5-9	5-9	1	5	Ipswich ..	23.
593	Light to loam ..	1487	55	26/5	3-7	3-0	1	5-9	9-9	11-0	5-6	6-3	2	24½	Ipswich ..	10.
594	Light ..	230	87	23/2½	4-8	3-9	—	8-0	8-0	11-5	13-0	12-5	2	25	Ipswich ..	6.
596	Light loam ..	800	50	23/3	3-5	1-9	—	6-8	7-5	11-3	25-0	9-5	1	7	Ipswich ..	9.
598	Skirt ..	54	70	49/1½	3-7	5-6	—	7-9	15-8	18-4	15-8	15-8	1	6	Ely ..	13.
600	Clay loam ..	168	84	31/0½	5-4	4-2	1	4-2	7-0	6-5	10-2	9-9	1	6½	Ipswich ..	5.
605	Chalk loam and clay	215	81	34/3½	6-0	3-7	—	9-7	12-0	12-0	14-3	17-7	3	31	Ely and Bury	18, 14.
606	Fen ..	260	90	33/0½	5-0	6-2	—	17-0	30-0	23-8	13-4	26-2	4	61½	Peterborough ..	18.
608	Mixed heavy ..	260	86	19/3½	4-6	3-5	1	1-8	4-5	6-4	2-9	7-1	3	16	Bury ..	14.
609	Black fen ..	760	79	52/10½	4-7	5-5	1	4-2	10-0	15-0	41-7	63-3	1	8	Ely ..	15.
611½	Very mixed ..	426	60	30/9	4-8	3-3	1	1-2	3-1	4-8	5-0	5-8	2	14½	Ely ..	21.
612	Light loam ..	236	98	31/10½	3-4	2-1	2	1-3	3-0	3-0	3-0	3-0	1	7	Bury and Felsted	50, 45.
614	Light to Chalk ..	362	75	14/0½	3-0	2-2	1	2-1	5-2	6-9	5-2	4-2	1	11½	Bury, Felsted, Ely and Wisington.	35, 23, 30, 70.
615	Mixed loam ..	84	64	28/1½	3-0	6-0	—	—	22-7	33-0	31-1	40-6	3	21½	Bury and Ely	15, 12.
616	Heavy ..	46	93	36/6½	4-4	4-4	—	7-0	11-6	11-6	11-6	11-6	1	5	Ipswich ..	13.
618	Light to strong ..	72	76	30/-	4-2	7-0	—	—	7-3	8-2	8-2	10-0	1	5½	Bury ..	8.
621	Medium loam ..	112	64	21/5½	4-0	2-7	—	6-1	6-1	18-4	15-3	9-7	1	7	Cantley ..	16.
622	Mixed clay to sandy loam.	130	88	33/5½	6-7	4-3	—	—	—	3-7	5-6	5-7	1	6	Cantley ..	17.
623	Sandy loam ..	204	74	36/4½	3-4	3-9	—	—	—	4-7	1-3	2-7	1	4	Cantley ..	16.
624	Sandy loam to strong	73	82	52/10½	4-1	4-1	—	—	—	6-7	12-5	10-8	2	6½	Brigg and Selby	8, 35.
627	Loam ..	4½	100	52/4½	—	—	—	—	—	—	44-4	50-0	1	2½	Bury ..	17.
628	Sandy loam ..	230	74	23/10½	4-4	3-0	1	8-8	23-5	35-3	35-3	31-2	5	53	Ipswich ..	20.
629	Sand ..	1600	88	6/5½	1-9	1-6	3	—	—	7-2	15-0	22-6	1	317	King's Lynn	20.
629A	Light mixed ..	626	80	6/5½	2-1	1-9	1	—	—	—	—	19-9	1	100	King's Lynn	21.

* Excludes casual labour. † Excludes tractors hired. ‡ Experimental farm.
§ Includes 7500 acres heath, for which only a nominal rent is paid.

Appendix A.

GENERAL ECONOMIC DATA, 1929—continued

Farm Number.	General Description of Soil.	Total Acreage.	% Arable.	Rent and Rates per Acre.	Density per 100 Acres*		Number of Tractors.†	Total Beet grown expressed as a % of Total Arable.					1929 Beet Crop actually Costed.		Factories Supplied.	Approximate Road Distance (Miles) to Factory.
					Labour.	Horses.		1925	1926	1927	1928	1929	Number of Fields.	Acres.		
680	Fen and skirt ..	812	84	61/9½	4.8	6.4	1	4.6	6.1	9.2	9.9	17.2	1	32	Ely and Wislington	17.6.
681	Light fen to medium loam.	350	36	28/8	1.8	2.7	—	24.0	24.0	24.0	58.4	67.5	1	16	Wislington	1.
682	Heavy fen ..	450	94	62/7½	5.8	3.6	1	13.1	13.1	13.1	11.8	9.4	1	40	Spalding ..	10½.
683	Light loam ..	250	69	27/8½	6.4	2.0	1	—	6.6	9.1	7.6	11.6	1	20	Cantley ..	5.
684	Mixed sand ..	720	61	21/8	2.9	2.6	—	4.5	9.1	6.8	6.8	6.8	2	30	King's Lynn	16.
686	Sandy loam ..	390	82	36/11½	3.6	8.1	—	—	—	1.9	3.1	3.9	2	10½	Cantley ..	18.
688	Fen ..	280	91	87/2½	2.5	2.9	—	—	—	4.7	8.0	11.0	1	28	Bardney ..	20.
689	Mixed loam ..	250	73	24/7	3.6	3.2	1	—	20.0	22.0	19.7	23.4	4	41	Cantley ..	20.
640	Fen ..	200	61	42/11½	5.0	4.6	1	32.5	40.7	48.8	50.4	48.0	5	59	Ely and Bury	9, 19.
641	Light to strong ..	601	68	19/11½	4.4	3.2	—	1.5	5.9	13.2	13.1	13.2	1	12½	Bury and Cantley	20, 20.
642	Sand to clay loam ..	300	50	23/4	0.0	3.3	1	8.0	20.0	23.8	18.0	21.0	4	81½	Ipwich and Bury	13, 35.
648	Clay loam ..	212	81	22/10½	3.8	3.8	—	5.8	11.6	11.6	12.8	16.3	4	28	Ipwich and Bury	20, 20.
644	Sandy loam ..	160	76	34/10	5.8	4.0	—	—	17.7	16.8	24.6	4	22½	Ipwich ..	6.	
645	Gravel loam to strong.	407	63	22/10	2.2	1.7	—	—	14.1	15.6	14.1	13.9	3	35½	Bury and Ely	7, 20.
647	Medium loam ..	53	79	42/10½	7.5	5.7	—	—	7.1	11.9	9.5	15.5	1	6½	Cantley ..	13.
648	Sand and clay loam	110	56	52/1½	5.5	4.6	—	5.5	17.1	24.7	9.6	14.9	2	9½	Cantley ..	7.
650	Mixed on chalk ..	50	80	42/10½	6.0	6.0	—	20.0	30.0	12.5	12.5	12.5	1	2½	Ely ..	38.
651	Medium loam ..	790	73	20/3	4.7	3.4	1	—	1.4	2.9	4.5	4.3	3	25	Cantley ..	17.
652	Medium ..	47	92	41/8½	4.8	6.4	—	9.3	18.6	18.6	14.0	13.9	1	6	Cantley ..	15.
653	Heavy loam ..	740	86	31/6½	4.0	2.7	2	—	0.1	1.4	2.3	3.9	2	25	Ely ..	40.
654	Skirt ..	21	81	60/6½	4.8	9.5	—	17.7	23.5	47.1	35.3	39.4	1	5	Wislington and Ely	9, 30.
655	Clay silt ..	80	60	69/-	3.3	3.3	—	—	11.1	11.1	16.7	19.4	1	3½	King's Lynn	7.
656	Loam ..	220	59	23/10½	2.3	2.7	—	9.2	9.2	9.2	9.2	9.2	1	12	Felsted ..	32.
660	Light to mixed loam	110	55	24/4	2.7	1.8	—	—	—	—	5.0	16.7	1	10	Ipwich ..	12.
661	Light on chalk ..	700	94	13/7½	3.4	2.6	1	—	—	—	—	2.3	1	15	King's Lynn	11.
662	Fen ..	250	100	61/3½	4.6	6.0	—	—	4.1	10.0	12.0	20.0	1	15	Ely and Wislington	10, 20.
663	Gravel loam ..	320	78	19/3½	2.7	3.1	1	—	—	2.8	8.0	14.4	2	36	Cantley ..	15.
664	Mixed on chalk and gravel.	1200	80	22/4	3.2	2.8	2	10.4	18.7	31.2	20.8	22.6	8	217	King's Lynn and Bury.	14, 30.
666	Light to medium loam.	387	72	20/3½	3.4	3.1	1	2.0	4.7	9.4	9.7	11.2	1	31	Bury ..	3½.
667	Very light mixed ..	804	56	11/8½	3.2	2.0	—	4.4	8.9	13.3	17.6	18.1	6	31½	Bury, Cantley and Ely.	16, 40, 25.
668	Mixed loam ..	193	61	20/2½	2.6	2.1	1	—	7.6	5.9	6.4	6.8	1	8	Felsted ..	20.
669	Very mixed ..	444	71	17/1½	2.0	1.8	1	0.3	2.8	3.5	6.3	7.2	1	23	Ely and Peterborough.	18, 18.
670	Clay loam ..	287	72	26/5½	4.2	3.5	1	5.8	8.0	8.7	11.1	13.0	1	27	Cantley, Ipwich and Bury.	40, 22, 22.
671	Very light ..	142	92	32/10	2.6	2.1	1	2.7	5.3	6.9	14.1	21.0	1	27½	Bury and Ely	3, 35.
672	Light to medium ..	395	73	30/8	3.3	2.0	2	1.7	2.4	7.3	11.8	12.1	1	35	Ely ..	18.
673	Medium to heavy ..	489	83	22/-	3.6	3.1	1	—	2.5	9.9	9.9	9.9	1	40	Bury and Wislington.	20, 40.
674	Light ..	385	89	30/9	3.2	3.5	—	—	2.0	2.8	3.6	6.3	1	16	Cantley ..	30.
675	Medium to heavy ..	410	56	16/10	2.3	2.4	1	2.2	3.5	3.5	7.8	7.8	1	13	Cantley ..	13.
Totals and averages		36,761½	74.3	32/11½	3.8	3.4	55	4.5	8.1	11.2	13.0	15.7	191	2760		17.9

* Excludes casual labour.

† Excludes tractors hired.

APPENDIX B.

FIELD DATA, 1929.

Farm Number.	Field Number.	Soil Class.	Acres.	Preceding Crop.	Variety of Seed.	Seed lb. per acre.	Mean Date of Drilling.	Ridge or Flat.	Distance (ins.) between		Succeeding Crop.
									Drills.	Plants	
502	1	L.-M.	8½	Rye ..	K.W. ..	13	May 10	Flat	21	9	Barley.
	2	L.-M.	25	Barley ..	K.W. ..	14	May 1	Flat	21	9	Barley.
	3	L.-M.	10	Barley ..	K.W. ..	15	May 7	Flat	21	9	Barley.
	4	L.-M.	42	Barley and Oats	Kuhn, Marsters	16½	April 21	Flat	21	9	Barley.
504	5	L.-M.	5	Brussel Sprouts	K.W. ..	12	May 12	Flat	21	9	Barley.
	6	V.L.	21	Oats ..	Kuhn ..	12	?	Flat	16	10	Roots.
	7	L.-M.	16	Sugar Beet ..	K.W. "Z."	12	May 3	Flat	16	10	Barley.
	8	L.-M.	15	Wheat ..	Dippe ..	12	April 26	Flat	16	10	Barley.
505	9	L.-M.	4	Barley ..	K.W. ..	16	April 23	Flat	21	10	Barley.
	10	L.-M.	6	Barley ..	K.W. ..	16	April 20	Flat	21	10	Barley.
507	11	L.-M.	10½	Rye ..	K.W. ..	23	May 21	Flat	19	9	Sugar Beet.
	12	L.-M.	23½	Sugar Beet ..	K.W., Kuhn "P."	14	April 16	Flat	19	9	Oats.
	13	L.-M.	22	Sugar Beet ..	K.W. ..	14	May 15	Flat	19	9	Barley.
	14	L.-M.	15½	Sugar Beet ..	K.W. ..	16	May 9	Flat	19	9	Oats.
	15	L.-M.	32	Oats and S. Beet.	Strube "Z."	22	May 27	Flat	19	9	Oats and S. Beet.
	16	L.-M.	28	Rye and S. Beet	K.W. ..	15	April 19	Flat	19	9	Sugar Beet.
507A	17	M.-H.	15	Barley ..	K.W. ..	15	May 5	Flat	19	9	Sugar Beet.
508	18	M.-H.	20	Barley ..	K.W. ..	16	April 22	Flat	22½	9	Barley.
	19	M.-H.	15	Wheat ..	Kuhn ..	16	April 18	Flat	22½	9	Barley.
510	20	M.-H.	9	Wheat ..	Mixed ..	18	April 12	Flat	18-22	8	Barley.
	21	L.-M.	6	Oats ..	K.W., Marsters	17	May 23	Flat	18-22	8	Oats.
	22	L.-M.	18	Barley and S. Beet.	K.W., Schreiber "S.S."	17	April 29	Flat	18-22	8	Barley.
520	23	F.	4	Wheat ..	Kuhn ..	15	May 5	Ridge	21	10	Potatoes.
523	24	F.	24	Oats ..	Kuhn "P."	21	May 10	Flat	21½	9	Wheat.
	25	F.	8	Wheat and Oats	Mixed ..	20	May 24	Flat	21½	9	Sugar Beet.
	26	F.	9	Wheat ..	Mixed ..	20	May 24	Flat	21½	9	Oats.
	27	F.	12	Potatoes ..	Schreiber	17	June	Flat	21½	9	Wheat.
	28	L.-M.	9½	Sainfoin ..	K.W., Rimpao	16	May 9	Flat	18	10	Oats.
524	29	L.-M.	7½	Sugar Beet ..	Kuhn, Dippe	18	April 19	Flat	20	9	Barley.
526	30	L.-M.	2½	Sugar Beet ..	K.W. ..	18	April 26	Flat	20	9	Barley.
	31	L.-M.	3½	Sugar Beet ..	Schreiber	18	May 3	Flat	20	9	Barley.
528	32	L.-M.	6½	Wheat ..	Kuhn ..	14	April 11	Flat	18	10	Sugar Beet.
	33	L.-M.	6½	Oats ..	Kuhn ..	14	April 24	Flat	18	10	Barley.
	34	M.-H.	4½	Barley ..	K.W. ..	14	April 26	Flat	18	10	Barley.
	35	L.-M.	10½	Potatoes and Cabbage.	K.W. "N." and "E."	14	April 14	Flat	21	10	Brussel Sprouts.
542	36	M.-H.	5	Barley ..	Kuhn ..	15	April 19	Flat	20	9	Barley.
	37	L.-M.	14	Barley ..	K.W. ..	15	May 5	Flat	20	9	Barley.
543	38	F.	16	Wheat ..	Kuhn ..	12	?	Flat	19½	9	Sugar Beet.
544	39	L.-M.	30	Barley ..	Kuhn, Marsters	16	May 2	Flat	21	8	Barley.
	40	L.-M.	4½	Swedes ..	Kuhn ..	16	May 16	Flat	21	8	Barley.
551	41	S.	15	Wheat ..	K.W. ..	12	May 17	Ridge	23	8	Oats.
	42	S.	9	Roots ..	K.W. ..	12	May 3	Ridge	23	8	Sugar Beet.
	43	S.	9	S. Beet and Wheat.	Mixed ..	12	May 8	Ridge	23	8	Sugar Beet.
	44	S.	12	S. Beet and Sewage treatment.	K.W. ..	12	May 15	Ridge	23	8	Sugar Beet.
	45	S.	9	Barley ..	K.W. ..	12	May 17	Ridge	23	8	Oats.
	46	L.-M.	3	Sugar Beet ..	K.W. "E."	15	April 23	Ridge	24	10	Barley.
	47	V.L.	2	Sugar Beet ..	K.W. "E."	15	April 9	Ridge	24	10	Barley.
	48	L.-M.	2½	Wheat ..	K.W. "E."	15	April 15	Ridge	24	10	Barley.
554	49	V.L.	2	Wheat ..	K.W. "E."	15	April 11	Ridge	24	10	Mangolds.
556	50	L.-M.	6	Sugar Beet ..	K.W., Johnsons	15	May 8	Ridge	19	10	Roots.
	51	L.-M.	4	Rye ..	Kuhn ..	13	June 4	Ridge	27	8	Barley.
557	52	L.-M.	21	Barley ..	Kuhn ..	15	April 24	Flat	19	9	Barley.
	53	M.-H.	5	Wheat ..	Johnsons	15	May 17	Flat	19	9	Roots.
560	54	F.	12	Barley ..	K.W. "Z."	12	April 18	Flat	20	10	Wheat.
562	55	M.-H.	2	Barley ..	K.W. ..	14	May 4	Flat	22	9	Barley.
566	56	F.	8	Wheat ..	Kuhn ..	15	April 18	Flat	19	10	Sugar Beet.
567	57	L.-M.	14	Wheat ..	?	15	April 20	Flat	22	9	Wheat.
568	58	F.	8	Potatoes ..	Kuhn ..	13	April 16	Flat	19½	10	Oats.
	59	F.	16	Wheat ..	Kuhn ..	13	April 26	Flat	19½	10	Potatoes.
	60	F.	7	Potatoes ..	Garroux	13	May 7	Flat	19½	10	Wheat.
	61	F.	21	Wheat ..	Garroux	13	May 3	Flat	19½	10	Potatoes.
578	62	L.-M.	10	Oats ..	Kuhn, Marsters	18	April 25	Flat	18	9	Barley.
583	63	S.	12	Oats ..	Kuhn ..	15	April 14	Flat	18	9	Oats.
	64	S.	8½	Oats ..	Kuhn ..	15	May 7	Flat	18	9	Oats.

* Part failed and was re-drilled. † Spacing drill used.
V.L. = Very light. L.-M. = Light to medium. M.-H. = Medium to heavy. F. = Fen, Silt and Warp. S. = Sewage.
"K.W." indicates *Klein Wanzleben*. "Mixed" indicates that more than two varieties were drilled.

Appendix B.

FIELD DATA—continued

Farm Number.	Field Number.	Soil Class.	Acres.	Preceding Crop.	Variety of Seed.	Seed lb. per acre.	Mean Date of Drilling.	Ridge or Flat.	Distance (ins.) between		Succeeding Crop.
									Drills.	Plants	
	65	S.	17	Rye Grass ..	Dippe ..	15	April 29	Flat	18	9	Sugar Beet.
	66	S.	9½	Oats ..	Hilleshog ..	15	May 26	Flat	18	9	Oats.
	67	S.	11	Sugar Beet ..	Kuhn ..	15	May 14	Flat	18	9	Silage.
584	68	L.-M.	28	Barley ..	Mixed ..	15	April 16	Flat	24	8	Barley.
588	69	V.L.	19	Oats ..	Kuhn ..	14	May 14	Flat	20	9	Oats.
					K.W."Z."						
589	70	F.	15	Oats ..	Marsters ..	14	April 12	Flat	18	8	Potatoes.
590	71	F.	8	S. Beet and Wheat.	K.W. ..	14	May 8	Flat	19	10	Sugar Beet.
	72	F.	4	Rye and Bare Fallow.	K.W."N."	14	April 23	Flat	19	10	Sugar Beet.
591	73	L.-M.	6	Sugar Beet ..	Dippe, Marsters	12	April 24	Flat	18	9	Barley.
	74	V.L.	5	Roots ..	Dippe, Marsters	12	May 4	Flat	18	9	Sugar Beet.
	75	L.-M.	5	Rye ..	Dippe, Marsters	12	?	Flat	18	9	Barley.
	76	L.-M.	4	Kale ..	Dippe, Marsters	12	May 11	Flat	18	9	Barley.
592	77	L.-M.	5	Linsced ..	Kuhn ..	12	April 24	Flat	24	9	Barley.
593	78	V.L.	10½	Barley ..	Johnsons ..	12	April 21	Ridge	18½	9	?
	79	L.-M.	14	Oats ..	Johnsons ..	11	May 11	Ridge	18½	9	?
594	80	L.-M.	15	Wheat ..	K.W."N."	15	?	Flat	18	8	Sugar Beet.
	81	M.-H.	10	Wheat ..	Johnsons ..	15	?	Flat	18	8	Oats.
					"Perfection."						
596	82	L.-M.	7	Roots ..	K.W."N."	*28	May 24	Flat	19	10	Barley.
					Kuhn "P."						
598	83	M.-H.	6	Barley ..	Johnsons "P."	12	April 18	Flat	19	8	Wheat.
600	84	M.-H.	0½	Barley ..	K.W. ..	14	May 4	Flat	22	10	Barley.
603	85	L.-M.	10	Beans and Oats	Kuhn "P."	15	April 12	Flat	23	8	Barley.
	86	L.-M.	16	Barley ..	Kuhn "P."	15	April 28	Flat	28	8	Barley.
	87	L.-M.	5	Oats ..	Kuhn "P."	15	April 12	Flat	23	8	Wheat.
606	88	F.	14½	Potatoes ..	Marsters ..	15	May 7	Flat	20	10	Sugar Beet.
	89	F.	21½	Potatoes and S. Beet.	Marsters ..	15	April 13	Flat	30	10	Wheat.
	90	F.	15	Sugar Beet ..	Marsters ..	15	April 23	Flat	20	10	Potatoes.
	91	F.	10½	Wheat ..	Marsters ..	15	April 24	Flat	20	10	Potatoes.
608	92	M.-H.	8	Wheat ..	?	16	?	Flat	21	9	Barley.
	93	M.-H.	8	Cabbage ..	?	16	?	Flat	21	9	Barley.
609	94	F.	8	Rape ..	Marsters ..	12	?	Flat	30	13	Sugar Beet.
611	95	L.-M.	7½	Barley ..	K.W. ..	15	April 19	Flat	18	9	Barley.
	96	L.-M.	7	Wheat ..	K.W. ..	16	May 1	Flat	18	9	Barley.
612	97	L.-M.	7	Oats ..	Kuhn ..	18	April 19	Flat	22	9	Barley.
614	98	L.-M.	11½	Barley ..	K.W., Kuhn ..	13	April 16	Flat	21	10	Barley.
615	99	L.-M.	5	Sugar Beet ..	?	13	April 10	Flat	30	10	Barley.
	100	L.-M.	7	Wheat ..	?	14	May 4	Flat	30	10	Wheat.
	101	L.-M.	0½	Wheat and Barley.	?	14	April 25	Flat	30	10	Barley.
616	102	M.-H.	5	Oats ..	Kuhn ..	15	April 21	Flat	18	10	Barley.
					K.W."N."						
618	103	M.-H.	5½	Oats ..	Dippe ..	16	April 3	Flat	24-32	10	Wheat.
631	104	L.-M.	7	Wheat, Oats and Peas.	Dippe ..	14	May 1	Flat	19	9	Sugar Beet.
					Hilleshog.						
633	105	L.-M.	6	Oats ..	Dippe ..	15	?	Flat	21	9	Barley.
635	106	L.-M.	4	Wheat ..	Dippe ..	15	April 26	Flat	21	9	Barley.
634	107	L.-M.	4	Potatoes ..	Kuhn "P."	19	May 7	Ridge	20	10	Sugar Beet.
	108	L.-M.	3½	Barley ..	Kuhn "P."	17	April 27	Ridge	20	10	Wheat.
627	109	L.-M.	2½	Sugar Beet ..	K.W., Dippe ..	15	April 18	Flat	23	10	Sugar Beet.
638	110	V.L.	13	Sugar Beet ..	Marsters, Kuhn	12	April 13	Flat	20½	9	Oats.
	111	L.-M.	10	Roots and Turnips.	Marsters, Kuhn	11	April 27	Flat	20½	9	Sugar Beet.
	112	V.L.	10	Sugar Beet ..	Marsters, Kuhn	12	May 16	Flat	20½	9	Oats.
	113	V.L.	17	Sugar Beet ..	Marsters, Kuhn	12	?	Flat	20½	9	Sugar Beet.
	114	L.-M.	3	Oats ..	Marsters, Kuhn	11	June 7	Flat	20½	9	Barley.
639	115	V.L.	317	Roots and Corn	K.W., Kuhn ..	15	?	Flat	24	9	Roots and Barley.
639A	116	V.L.	100	Barley and Rye	K.W., Kuhn ..	15	?	Flat	24	9	?
630	117	F.	32	Wheat ..	Mixed ..	16	April 24	Flat	19½	10	Sugar Beet.
631	118	L.-M.	16	Sugar Beet ..	Kuhn ..	14	May 17	Flat	18	10	Barley.
632	119	F.	40	Wheat ..	Brauno, Sharps "Z.Z."	28	April 17	Flat	17	9	Potatoes.
633	120	M.-H.	30	Barley ..	Mixed ..	20	April 23	Flat	20	9	Barley.
634	121	V.L.	25	Oats ..	Kuhn ..	15	?	Flat	21	9	Barley.
	122	L.-M.	5	Wheat ..	Kuhn ..	15	May 30	Flat	21	9	Barley.
636	123	L.-M.	4	Sugar Beet ..	Kuhn ..	16	April 19	Flat	20	9	Wheat.
	124	L.-M.	6½	Barley ..	K.W. ..	16	April 25	Flat	20	9	Barley.
638	125	F.	28	Potatoes, Wheat and Beans.	Mixed ..	18	April 20	Flat	19½	9	Wheat and S. Beet.
639	126	L.-M.	11½	Barley ..	K.W., Kuhn ..	15	April 20	Flat	18	9	Barley.
	127	M.-H.	11	Oats ..	K.W., Kuhn ..	15	May 1	Flat	18	9	Barley.
	128	L.-M.	6½	Wheat ..	K.W., Kuhn ..	15	May 3	Flat	18	9	Barley.

* Part failed and was re-drilled.

V.L. = Very light. L.-M. = Light to medium. M.-H. = Medium to heavy. F. = Fen, Silt and Warp. S. = Sewage.

"K.W." indicates Klein Wansleben. "Mixed" indicates that more than two varieties were drilled.

Appendix B.

FIELD DATA—continued

Farm Number.	Field Number.	Soil Class.	Acres.	Preceding Crop.	Variety of Seed.	Seed lb. per acre.	Mean Date of Drilling.	Ridge or Flat.	Distance (ins.) between		Succeeding Crop.
									Drills.	Plants	
640	129	L.-M.	13	Roots ..	K.W., Kuhn ..	15	May 10	Flat	18	9	Barley.
	130	F.	18	Potatoes and S. Beet.	Mixed ..	15	May 3	Flat	20	10	Sugar Beet.
	131	F.	8	Barley ..	Sharpe ..	15	May 1	Flat	20	10	Sugar Beet.
	132	F.	13	Oats ..	Kuhn ..	15	April 17	Flat	20	10	Barley.
	133	F.	7	Barley ..	Kuhn ..	15	April 18	Flat	20	10	Wheat.
641	134	F.	13	Wheat ..	Kuhn ..	16	April 17	Flat	20	10	Wheat and Oats.
642	135	L.-M.	12½	Oats ..	K.W. ..	16	May 3	Flat	20	9	Barley.
	136	L.-M.	14	Roots ..	Kuhn "P." ..	20	April 26	Flat	21	9	Barley.
643	137	L.-M.	6	Roots ..	Dippe ..	15	May 29	Flat	21	9	Barley.
	138	L.-M.	9	Roots ..	Kuhn "P." ..	16	May 18	Flat	21	9	?
	139	L.-M.	2½	Roots ..	Dippe ..	16	May 29	Flat	21	9	?
	140	M.-H.	8	Barley ..	Mixed ..	15	April 10	Flat	18	10	Barley.
	141	M.-H.	6	Sugar Beet	K.W. ..	15	April 19	Flat	18	10	Barley.
644	142	M.-H.	6	Barley ..	Mixed ..	15	May 1	Flat	18	10	Barley.
	143	M.-H.	8	Barley ..	Kuhn ..	15	May 13	Flat	18	10	Barley.
	144	L.-M.	3	Sugar Beet	Marsters ..	15	April	Flat	19	9	Barley.
	145	M.-H.	5	Sugar Beet	Marsters ..	15	April	Flat	19	9	Barley.
	146	L.-M.	5½	Barley ..	Dippe ..	15	May	Flat	19	9	Sugar Beet.
645	147	L.-M.	9	Sugar Beet	Marsters ..	15	May 10	Flat	19	9	Barley.
	148	M.-H.	8½	Wheat ..	K.W. ..	15	April 22	Flat	20½	9	Barley.
	149	L.-M.	16½	Barley ..	K.W. ..	15	May	Flat	20½	9	Barley.
	150	L.-M.	10½	Barley ..	K.W. ..	15	May 2	Flat	20½	9	Barley.
	151	L.-M.	6½	Oats ..	Kuhn "P." ..	18	April 27	Flat	18	8	Barley.
648	152	M.-H.	5	Roots ..	Dippe ..	15	April 9	Flat	18	8	Tares and Oats.
650	153	L.-M.	4½	Barley ..	Marsters ..	15	May 2	Flat	18	8	Barley.
651	154	L.-M.	2½	Potatoes	Kuhn ..	16	May 9	Flat	19	8	Wheat.
652	155	M.-H.	12	Sugar Beet	Hilleshog ..	14	April 5	Flat	18	10	Sugar Beet.
	156	M.-H.	8	Sugar Beet	Hilleshog ..	14	April 4	Flat	18	10	Sugar Beet.
	157	M.-H.	5	Sugar Beet	Hilleshog ..	14	April 20	Flat	18	10	Sugar Beet.
	158	L.-M.	6	Wheat ..	K.W., Kuhn ..	15	April 23	Flat	21	9	Barley.
	159	M.-H.	13	Barley ..	Hilleshog ..	16	April 21	Flat	21	9	Oats.
653	160	M.-H.	12	Oats ..	Marsters and Hilleshog.	20	April 29	Flat	18	9	Sugar Beet.
654	161	F.	5	Wheat and Strawberries.	Marsters ..	12	April 30	Flat	21	9	Wheat.
655	162	F.	3½	Cabbage ..	Kuhn ..	13	May 22	Flat	22	10	Potatoes.
656	163	L.-M.	12	Barley ..	Mixed ..	10	April 25	Flat	22	9	Barley.
660	164	L.-M.	10	Wheat and Peas	Mixed ..	25	April 24	Flat	20	10	Barley.
661	165	V.L.	15	Barley ..	Kuhn ..	15	April 29	Flat	20	9	Barley.
662	166	F.	15	Oats ..	Kuhn "P." ..	17	April 26	Flat	21	8	Barley.
663	167	V.L.	17	Oats ..	Marsters, Kuhn "P." ..	18	April 22	Flat	19	9	Barley.
664	168	L.-M.	19	Oats ..	Mixed ..	17	May 18	Flat	19	9	Barley.
	169	M.-H.	48	Barley ..	K.W. ..	15	April 22	Flat	21	8-9	Barley.
	170	L.-M.	25	Barley ..	Kuhn ..	15	April 5	Flat	21	8-9	Barley.
	171	L.-M.	50	Barley and Oats	K.W. ..	15	April 10	Flat	21	8-9	Barley.
	172	V.L.	24	Wheat ..	Kuhn ..	15	April 7	Flat	21	8-9	Barley.
665	173	V.L.	17	Barley ..	K.W. ..	15	April 19	Flat	21	8-9	Barley.
666	174	M.-H.	7	Barley ..	K.W. ..	15	April 23	Flat	21	8-9	Roots.
667	175	L.-M.	40	Barley ..	K.W. ..	15	May 2	Flat	21	8-9	Barley.
668	176	L.-M.	5	Pasture ..	K.W. ..	15	May 20	Flat	21	8-9	Sugar Beet.
669	177	L.-M.	31	Tares and Oats	K.W., Kuhn "P." ..	15	?	Flat	18	6	Barley.
670	178	V.L.	25	Barley ..	K.W., Kuhn ..	18	May 3	Flat	20	10-11	Barley.
	179	V.L.	6	Sugar Beet	K.W., Kuhn ..	23	April 10	Flat	20	10-11	Sugar Beet.
	180	V.L.	6	Barley ..	K.W., Kuhn ..	13	April 12	Flat	20	10-11	Barley.
	181	V.L.	8½	Barley ..	K.W., Kuhn ..	13	April 19	Flat	20	10-11	Sugar Beet.
	182	V.L.	10	Rye and Tares	K.W., Kuhn ..	13	May 10	Flat	20	10-11	Barley.
671	183	V.L.	26	Tares and Leys	K.W., Kuhn ..	13	May 10	Flat	20	10-11	Barley.
672	184	M.-H.	8	Tares and S. Beet.	?	15	May 6	Flat	19	9	?
673	185	M.-H.	23	S. Beet, Fallow and Wheat.	K.W. "E." ..	18	April 29	Flat	19½	8	?
674	186	M.-H.	27	Wheat and Barley.	Mixed ..	10	May 1	Flat	21	10	?
675	187	V.L.	27½	Corn and Fallow.	Mixed ..	16½	April 19	Flat	18	9	?
676	188	L.-M.	35	Wheat ..	K.W., Kuhn ..	17	April 26	Flat	21	9	?
677	189	M.-H.	40	Wheat and Barley.	K.W., Kuhn ..	16	May 7	Flat	21	9	Barley.
678	190	L.-M.	16	Barley ..	?	13	April 26	Flat	21	9	?
679	191	M.-H.	18	Barley ..	K.W. "N.", Kuhn "P." ..	15	May 3	Flat	19	9	Barley.

V.L. = Very light. L.-M. = Light to medium. M.-H. = Medium to heavy. F. = Fen, Silt and Warp. S. = Sewage.
 "K.W." indicates *Klein Wansleben*. "Mixed" indicates that more than two varieties were drilled.

APPENDIX C. YIELD DATA, 1929.

Field Number	Yield in Tons per Acre.		% Pure.	Effective % Sugar Content.	lb. Sugar (Sucrose) per Acre.	lb. Sugar (Sucrose) per £ labour.	Haulage Miles.	Method of Transport.	Estimated Tons.	Tops per Acre.	
	Unwashed.	Washed.								Method of Disposal.	Value. £ s. d.
1	9-022	7-886	12-56	18-1	3197	509			6	Part carted and part ploughed in	2 5 0
2	9-022	7-886	12-56	18-1	3197	369			6	Part carted and part ploughed in	2 5 0
3	9-022	7-886	12-56	18-1	3197	344			6	Part carted and part ploughed in	2 5 0
4	9-022	7-886	12-56	18-1	3197	400			6	Part carted and part ploughed in	2 5 0
5	9-022	7-886	12-56	18-1	3197	510			6	Part carted and part ploughed in	2 5 0
6	5-726	5-311	7-24	19-7	2344	282			4	Folded	1 10 0
7	10-994	9-479	13-78	17-7	3758	555			7	Folded	2 12 6
8	9-169	7-282	20-60	18-0	2936	347			5½	Folded	2 1 3
9	12-603	10-103	19-84	17-8	4028	297			7	Carted off	2 12 6
10	11-790	9-994	15-28	18-0	4030	300			7	Carted off	2 12 6
11	8-611	7-083	17-01	17-4	2733	315			5	Part carted and part ploughed in	1 12 6
12	4-640	4-314	7-03	20-6	1991	220			3	Folded	1 2 6
13	7-555	6-860	9-11	19-2	2953	359			5	Part carted and part ploughed in	1 12 6
14	6-783	5-858	13-64	18-0	2362	200			4	Folded	1 10 0
15	11-791	9-397	20-30	10-7	3515	366			6	Part carted and part ploughed in	1 19 0
16	6-733	6-100	8-07	20-6	2850	334			4	Folded	1 10 0
17	11-127	8-636	22-89	17-8	3443	329			8	Ploughed in	2 4 0
18	14-446	11-918	17-50	17-8	4752	481			12	Carted off	4 10 0
19	11-880	10-928	8-04	21-0	5141	604			10	Carted off	3 15 0
20	18-054	10-049	11-11	18-2	6543	388			12	Part folded, part carted and part ploughed in	4 10 0
21	14-348	12-792	10-85	17-6	5043	295			10	Part folded, part carted and part ploughed in	3 15 0
22	13-037	11-620	10-87	19-1	4972	375			9	Part folded, part carted and part ploughed in	3 7 6
23	12-958	11-116	14-19	17-6	4352	364			15	Carted off	4 17 6
24	10-275	9-751	5-10	17-4	3301	487			10	Part carted and part folded	3 5 0
25	10-558	9-770	7-40	17-6	3362	398			10	Part carted and part folded	3 5 0
26	11-826	10-080	9-64	16-9	4045	489			10½	Part carted and part folded	3 8 3
27	11-465	10-493	8-72	20-6	4842	761			10½	Part carted and part folded	3 8 3
28	13-374	12-293	8-80	16-9	4642	527			8	Folded	3 0 0
29	14-343	12-608	13-13	18-5	5225	565			9	Carted off	3 7 6
30	10-300	9-395	8-79	20-1	4230	477			7	Carted off	2 12 6
31	12-898	11-206	13-12	17-9	4493	537			8	Carted off	3 0 0
32	11-638	11-042	4-94	18-7	4626	460			10	Part carted and part folded	3 15 0
33	11-544	10-885	5-71	20-1	4301	439			9	Part carted and part folded	3 7 6
34	8-603	7-086	10-66	17-7	3047	201			7	Part carted and part folded	2 12 6
35	8-444	7-446	8-20	19-4	3366	319			5½	Carted off	2 1 3
36	7-167	6-828	4-74	19-6	2998	302			6	Carted off	2 5 0
37	14-492	12-566	13-29	18-7	5264	347			10	Carted off	3 15 0
38	12-742	12-257	3-81	15-8	4338	411			12	Ploughed in	2 14 0
39	5-148	4-770	7-34	30-9	2233	270			2½	Folded	18 9
40	5-148	4-770	7-34	30-9	2233	264			2½	Folded	18 9
41	10-700	9-112	15-32	17-9	3654	510			9	Part carted and part folded	2 18 6
42	6-877	6-261	8-96	16-6	2328	364			6	Part carted and part folded	1 19 0
43	9-304	7-845	13-17	17-5	3075	410			8	Part carted and part folded	2 12 0
44	9-466	8-161	13-78	17-6	3217	460			8	Part carted and part folded	2 12 0
45	6-877	6-261	8-96	16-6	2328	353			6	Part carted and part folded	1 19 0
46	9-633	8-062	6-90	18-3	3674	533			8	Folded	3 0 0
47	10-887	9-812	9-87	17-1	3758	525			8	Folded	3 0 0
48	10-375	9-100	12-29	17-7	3608	477			8	Folded	3 0 0
49	9-294	8-662	6-79	17-7	3494	367			8	Folded	3 0 0
50	9-010	8-423	6-52	17-8	3358	458			6	Carted off	2 5 0
51	8-100	7-306	11-03	16-5	2603	340			6	Carted off	2 5 0
52	11-710	9-799	16-31	17-0	3731	382			7	Carted off	2 12 6
53	11-710	9-799	10-31	17-0	3731	344			7	Carted off	2 12 6
54	14-902	13-006	9-06	18-2	5547	676			11	Folded	3 11 6
55	6-450	5-919	8-24	19-5	2585	286			4	Folded	1 10 0
56	12-487	11-742	8-97	17-8	4682	484			10	Ploughed in	2 5 0
57	4-138	3-897	5-83	20-8	1903	265			5	Folded	1 17 6
58	14-066	12-173	13-45	17-1	4663	486			10	Carted off	3 5 0
59	14-066	12-173	13-45	17-1	4663	419			10	Carted off	3 5 0
60	14-066	12-173	13-45	17-1	4668	425			10	Carted off	3 5 0
61	14-066	12-173	13-45	17-1	4663	475			10	Carted off	3 5 0
62	13-476	12-082	10-33	18-9	5115	494			7	Ploughed in	1 18 6
63	11-200	10-383	7-29	15-5	3005	366			10½	Part carted and part ploughed in	2 17 9
64	11-529	10-090	7-28	16-5	3712	322			11	Part carted and part ploughed in	3 0 6
65	12-000	11-126	7-29	15-5	3363	341			11	Part carted and part ploughed in	3 0 6
66	8-947	8-296	7-28	16-5	2880	221			9	Part carted and part ploughed in	2 9 6
67	9-545	8-849	7-29	15-5	3072	297			9	Part carted and part ploughed in	2 9 6

* Weighted average of individual consignments.

† From field to roadside, wharf or rail station.

‡ From roadside, wharf or rail station to factory: where more than one destination data are given in same order as factories in Appendix A.

Appendix C.

YIELD DATA, 1929—continued

Field Number	Yield in Tons per Acre.		% Tare.	Effective % Sugar Content.	lb. Sugar (Su-crose) per Acre.	lb. Sugar (Su-crose) per lb. labour.	Haul- age, Miles.	Method of Trans- port.	Esti- mated Tons.	Tops per Acre.	
	Un- washed.	Washed.								Method of Disposal.	Value. \$ s. d.
68	12-045	10-104	16-12	18-6	4210	458	1	Road	8	Folded	3 0 0
69	5-966	4-924	17-47	18-4	1809	207	1	Road	3	Folded	1 2 6
70	20-363	16-992	16-56	17-2	6547	713	1	Road	12	Ploughed in	2 14 0
71	5-947	4-959	16-61	16-6	1844	214	3	Rail	4	Ploughed in	18 0
72	10-375	8-697	16-17	17-3	3370	346	6		6	Ploughed in	1 7 0
73	7-590	6-534	13-91	17-1	2503	265	6		6	Folded	2 5 0
74	7-590	6-534	13-91	17-1	2503	267	3 1/2	Rail	6	Folded	2 5 0
75	7-590	6-534	13-91	17-1	2503	331	6		6	Folded	2 5 0
76	7-590	6-534	13-91	17-1	2503	327	6		6	Folded	2 5 0
77	6-355	5-733	10-38	18-4	2359	276	1	Road	7	Folded	2 12 6
78	7-577	6-935	8-48	20-0	3107	356	1	Road	4 1/2	Part carted and part ploughed in	1 9 3
79	8-776	7-859	10-45	18-7	3292	349	1		6	Part carted and part ploughed in	1 19 0
80	12-808	10-972	14-34	18-0	4424	694	1	Road	8	Carted off	3 0 0
81	7-731	6-995	9-52	19-2	3008	408	1		6	Carted off	2 5 0
82	14-755	12-134	17-77	16-9	4593	405	1	Rail	8	Folded	3 0 0
83	9-762	7-981	18-25	17-1	3057	302	1	Rail	5	Ploughed in	1 7 6
84	11-885	10-238	13-85	17-4	3990	366	1	Road	7	Part carted and part ploughed in	2 5 6
85	10-204	8-565	16-08	16-1	3089	241	6		6	Ploughed in	1 13 0
86	8-071	6-898	13-29	17-9	2306	236	1	Road	5	Ploughed in	1 7 6
87	6-532	6-187	5-28	20-7	2869	235	5		5	Ploughed in	1 7 6
88	14-888	13-243	11-05	16-9	5013	470	10		10	Part folded and part ploughed in	2 15 0
89	14-888	13-243	11-05	16-9	5013	580	10	Rail	10	Part folded and part ploughed in	2 15 0
90	14-888	13-243	11-05	16-9	5013	507	10		10	Part folded and part ploughed in	2 15 0
91	14-888	13-243	11-05	16-9	5013	574	10		10	Part folded and part ploughed in	2 15 0
92	10-559	9-281	12-10	19-9	4137	432	1	Road	8	Part carted and part folded	3 0 0
93	15-438	11-961	22-52	17-6	4716	533	1		10	Part carted and part folded	3 15 0
94	23-873	19-370	18-87	14-4	6248	681	2 1/2	Water	15	Folded	4 17 6
95	12-156	10-266	15-55	17-6	4047	298	2 1/2	Rail	5	Folded	1 17 6
96	13-279	11-120	16-26	16-6	4135	285	7		7	Folded	2 12 6
97	8-696	7-452	14-31	18-1	3021	317	2	Rail	5	Folded	1 17 6
98	7-904	7-335	7-20	18-5	3040	302	2	Rail	5	Folded	1 17 6
99	10-737	8-845	17-63	17-0	3368	396	6		6	Ploughed in	1 13 0
100	14-188	12-120	15-28	16-6	4507	318	1	Road	8	Ploughed in	2 4 0
101	5-991	5-375	10-28	17-9	2155	211	4		4	Ploughed in	1 2 0
102	9-060	7-767	14-27	18-5	3219	277	1	Road	8	Part carted and part ploughed in	2 12 0
103	6-886	6-632	3-70	20-8	3090	288	1 1/2	Rail	8	Ploughed in	2 4 0
104	9-748	8-334	14-51	16-7	3118	298	1 1/2	Road	7	Carted off	2 12 6
105	11-473	10-029	12-58	18-6	4178	373	1 1/2	Rail	8	Ploughed in	2 4 0
106	10-203	9-863	3-34	20-6	4599	301	1	Water	9	Carted off	3 7 6
107	15-081	12-325	18-23	17-3	4776	549	1	Road	8	Carted off	3 0 0
108	12-253	10-330	15-71	16-1	3725	343	1		9	Carted off	3 7 6
109	11-933	11-478	3-89	19-5	5014	498	1 1/2	Road	8	Ploughed in	2 4 0
110	8-986	8-035	10-59	18-6	3348	400	8		8	Part carted and part ploughed in	2 12 0
111	11-425	9-385	17-88	17-4	3658	410	9		9	Part carted and part ploughed in	2 18 6
112	10-748	7-945	26-08	16-9	3008	372	1	Road	8	Part carted and part ploughed in	2 12 0
113	10-748	7-945	26-08	16-9	3008	309	8		8	Part carted and part ploughed in	2 12 0
114	8-288	6-750	18-55	16-8	2540	247	7		7	Part carted and part ploughed in	2 5 6
115	5-502	4-897	12-42	16-6	1830	286	1	Road	4	Part folded and part ploughed in	1 8 0
116	5-592	4-897	12-42	16-6	1830	291	1 1/2	Road	4	Part folded and part ploughed in	1 6 0
117	13-104	12-388	5-46	16-9	4690	431	1 1/2	Rail	9	Part folded and part ploughed in	2 18 6
118	13-296	11-205	15-73	18-8	4719	468	1 1/2	Water	7	Part carted and part folded	2 12 6
119	11-939	11-089	7-12	18-8	4670	388	1	Road	12	Ploughed in	2 14 0
120	12-602	11-404	9-50	18-7	4777	448	3	Rail	8	Carted off	3 0 0
121	7-986	7-080	11-34	16-7	2648	274	1	Road	5	Folded	1 17 6
122	7-986	7-080	11-34	16-7	2648	259	5		5	Ploughed in	1 7 6
123	13-462	11-627	13-63	18-0	4688	436	1	Rail	8	Part carted and part ploughed in	2 12 0
124	13-462	11-627	13-63	18-0	4688	436	8		8	Part carted and part ploughed in	2 12 0
125	15-281	14-406	5-73	18-5	5970	584	1	Road	10	Folded	3 5 0
126	8-130	7-514	7-58	18-6	3131	293	6		6	Carted off	2 5 0
127	6-988	6-242	10-67	16-5	2307	297	1	Road	6	Carted off	2 5 0
128	7-339	6-389	13-95	15-9	2276	304	2	Water	6	Carted off	2 5 0
129	11-812	10-226	13-42	16-2	3940	511	8		8	Carted off	3 0 0
130	17-719	14-776	16-61	15-4	5097	563	10		10	Part folded and part ploughed in	2 15 0
131	11-487	10-670	7-11	17-7	4230	580	8		8	Part folded and part ploughed in	2 4 0
132	15-208	12-691	16-55	16-8	4776	593	1	Road	9	Part folded and part ploughed in	2 9 6
133	9-321	9-007	3-37	17-7	3571	468	7		7	Part folded and part ploughed in	1 18 6
134	9-693	9-060	6-54	17-1	3470	472	7		7	Part folded and part ploughed in	1 18 6
135	9-338	8-432	9-65	20-1	3796	248	1	Road	6	Carted off	3 5 0
136							3	Rail	7		
137	12-433	10-581	14-90	17-8	4210	431	1	Road	7	Part carted and part folded	2 12 6
138	12-433	10-581	14-90	17-8	4210	430	1	Rail	7	Part carted and part folded	2 12 6
139	12-433	10-581	14-90	17-8	4210	439	1		7	Part carted and part folded	2 12 6

* Weighed average of individual consignments.

† From field to roadside, wharf or rail station.

‡ From roadside, wharf or rail station to factory: where more than one destination data are given in same order as factories in Appendix A.

Appendix C.

YIELD DATA, 1929—continued

Field Number	Yield in Tons per Acre.		% Tare.	Effective % * Sugar Content.	lb. Sugar (Su-crose) per Acre.	lb. Sugar (Su-crose) per £ labour.	† Haul- age. Miles.	‡ Method of Trans- port.	Esti- mated Tons.	Tops per Acre.	
	Un- washed.	Washed.								Method of Disposal.	Value. \$ s. d.
140	10-739	9-791	8-83	20-2	4430	340			8	Part carted and part folded	3 0 0
141	14-862	12-933	12-98	19-0	5504	470			10	Part carted and part folded	3 15 0
142	8-488	7-725	8-98	19-6	3392	319			7	Part carted and part folded	2 12 6
143	8-216	6-597	19-70	18-1	2675	250			5	Part carted and part folded	1 17 6
144	11-329	9-600	16-36	17-9	3849	416			6	Carted off	2 5 0
145	11-517	10-238	11-11	19-3	4426	419			8	Carted off	3 0 0
146	10-589	9-355	11-65	18-9	3961	360			6	Carted off	2 5 0
147	15-879	12-893	17-77	17-4	5025	469			10	Carted off	3 15 0
148	6-110	5-706	6-63	19-3	2454	302			5	Folded	1 17 6
149	9-105	7-848	19-30	17-6	2897	276			6	Folded	2 5 0
150	6-261	5-565	11-10	18-8	2344	286			4	Folded	1 10 0
151	13-027	11-165	7-16	19-2	4802	443			7	Carted off	2 12 6
152	9-723	9-270	4-05	19-6	4070	395			7	Carted off	2 12 6
153	9-723	9-270	4-05	19-6	4070	395			7	Carted off	2 12 6
154	10-915	10-390	4-81	18-0	4189	372			6	Ploughed in	1 13 0
155	10-786	10-064	6-70	19-1	4306	354			6	Part carted and part folded	2 5 0
156	15-436	13-473	12-71	18-4	5855	430			8	Part carted and part folded	3 0 0
157	14-420	11-402	20-93	17-8	4546	394			7	Part carted and part folded	2 12 6
158	11-135	10-262	7-84	18-5	4253	399			9	Carted off	3 7 6
159	10-645	9-317	12-48	17-9	3736	301			7	Folded	2 12 6
160	10-645	9-317	12-48	17-9	3736	304			7	Carted off	2 12 6
161	13-722	13-058	4-84	18-6	5440	517			8	Ploughed in	1 16 0
162	18-482	16-600	10-18	16-5	6135	650			10	Ploughed in	2 5 0
163	9-686	8-554	11-70	18-8	3602	433			6	Carted off	1 17 6
164	5-884	4-923	16-34	17-7	1952	239			4	Folded	1 10 0
165	8-806	7-338	16-67	16-5	2713	337			4	Folded	1 10 0
166	12-813	11-880	7-28	15-4	4098	431			10	Part folded and part ploughed in	2 15 0
167	6-015	5-475	8-98	18-2	2232	227			4	Carted off	1 10 0
168	8-090	6-403	20-86	16-8	2410	235			5	Carted off	1 17 6
169	13-281	10-738	19-23	17-3	4157	444			8	Part carted and part folded	3 0 0
170	12-830	11-317	11-70	19-0	4817	555			8	Part carted and part folded	3 0 0
171	12-390	10-708	13-67	16-8	4030	453			8	Part carted and part folded	3 0 0
172	9-839	8-756	11-01	18-8	3687	482			7	Part carted and part folded	2 12 6
173	10-163	8-905	12-38	17-9	3571	438			7	Part carted and part folded	2 12 6
174	17-525	14-034	19-64	17-1	5395	697			10	Part carted and part folded	3 15 0
175	14-108	11-714	16-96	16-7	4382	439			8	Part carted and part folded	3 0 0
176	13-733	11-898	17-01	16-7	4264	392			8	Part carted and part folded	3 0 0
177	9-982	8-465	15-19	18-0	3413	282			7	Folded	2 16 3
178	8-799	8-188	6-94	17-7	3246	318			6	Folded	2 5 0
179	9-058	8-329	8-05	18-5	3452	408			6	Ploughed in	1 15 0
180	11-473	9-733	14-91	17-6	3833	410			7	Ploughed in	2 1 3
181	9-659	8-929	7-55	17-7	3540	276			7	Folded	2 12 6
182	8-376	7-157	14-55	16-4	3629	233			5	Folded	2 1 3
183	7-960	6-778	14-35	16-3	2475	198			5	Folded	1 17 6
184	7-848	6-491	17-30	18-9	2748	256			6	Part carted and part ploughed in	2 2 0
185	7-041	6-175	12-32	18-2	2517	303			5	Folded	1 17 6
186	13-811	12-653	8-38	19-0	5385	399			10	Carted off	3 15 0
187	9-727	9-000	7-48	19-9	4012	571			5	Part folded, part carted and part ploughed in.	1 11 2
188	11-792	9-901	16-04	18-7	4147	379			7	Ploughed in	1 18 6
189	10-770	8-083	24-94	18-4	3331	294			7	Folded	2 12 6
190	8-706	8-029	7-77	18-7	3363	307			6	Ploughed in	1 13 0
191	7-907	7-237	8-60	17-4	2817	261			6	Part carted and part folded	2 5 0

* Weighted average of individual consignments.

† From field to roadside, wharf or rail station.

‡ From roadside, wharf or rail station to factory: where more than one destination data are given in same order as factories in Appendix A.

APPENDIX D.

Organic Manures and the Manurial Equivalents of Artificials per Acre applied direct to the 1927 Sugar Beet Crop.

Field Num- ber.	Dung. Loads	Fish Guts. Cwt.	Nitro- gen. lb.	Phos- phoric Acid. lb.	Pot- ash. lb.	Lime. Cwt.	Field Num- ber.	Dung. Loads	Fish Guts. Cwt.	Nitro- gen. lb.	Phos- phoric Acid. lb.	Pot- ash. lb.	Lime. Cwt.	Field Num- ber.	Dung. Loads	Fish Guts. Cwt.	Nitro- gen. lb.	Phos- phoric Acid. lb.	Pot- ash. lb.	Lt Oz
1	—	—	24	67	79	—	66	—	—	63	74	62	—	133	—	—	—	—	—	—
2	—	—	40	47	56	—	67	4-8	—	19	31	32	—	134	—	—	—	—	63	—
3	—	—	57	52	58	—	68	—	—	35	71	65	—	135	—	—	—	—	63	—
4	10-9	—	41	47	56	—	69	4-0	—	90	61	40	—	136	1-0	—	—	—	63	—
5	11-2	—	60	50	59	—	70	15-6	—	47	63	—	—	137	0-4*	8	11	—	63	—
6	—	—	40	46	58	—	71	16-0	—	21	42	38	—	139	—	—	—	—	—	—
7	—	—	23	86	56	—	72	12-0	—	—	—	—	—	140	10-0	—	27	54	50	—
8	—	—	—	—	—	—	73	11-0	—	15	60	16	—	141	—	—	—	—	—	—
9	—	—	—	—	—	—	74	—	—	15	76	5	—	142	—	—	—	—	—	—
10	—	—	22	44	39	—	75	—	—	—	78	78	—	143	10-4	—	23	47	—	—
11	—	—	40	87	112	—	76	—	—	65	79	78	—	144	—	—	—	—	85	—
12	—	—	—	78	52	—	77	8-0	—	14	28	25	—	146	—	—	25	33	187	—
13	5-0	—	—	—	—	—	78	9-6	—	17	49	123	—	147	—	—	36	43	219	—
14	0-1	33½	16	—	78	—	82	—	—	19	89	36	—	148	—	—	24	49	45	—
15	11-2	—	18	—	82	—	83	10-0	—	46	60	22	—	149	10-0	—	89	67	12	—
16	—	37	48	98	89	—	84	—	—	21	20	13	—	150	5-0	—	—	—	44	—
17	18-1	—	59	98	89	—	85	—	—	59	78	224	—	151	—	—	41	43	44	—
18	14-0	—	21	47	50	—	86	—	—	58	63	112	—	152	—	—	—	—	—	—
19	10-0	—	30	38	54	—	87	5-0	—	24	63	39	—	153	—	—	—	—	—	—
20	—	—	61	90	134	—	88	—	—	15	27	29	—	154	—	—	75	98	89	—
21	—	—	55	81	61	—	89	12-0	—	2	141	52	—	155	6-7	—	24	45	103	—
22	5-7	—	80	102	95	—	90	10-8	—	24	49	45	37½	156	15-7	10½	16	—	—	—
23	2-2	—	70	49	45	—	91	10-0	—	44	31	107	20	158	—	—	13	26	30	—
24	12-0	—	70	49	45	—	92	8-8	—	46	94	94	20	159	5-9	—	21	46	140	—
25	—	27½	55	71	65	—	93	—	—	23	35	40	—	160	14-0	—	30	65	80	—
26	—	—	48	31	47	—	94	12-7	—	29	59	54	3½	161	—	—	40	28	142	—
27	—	—	55	32	49	—	95	10-0	—	11	21	19	—	162	12-0	—	50	69	125	—
28	10-0	—	64	12	23	4½	96	—	—	—	—	—	—	163	—	—	35	51	129	—
29	11-7	—	15	29	27	—	97	8-0	5	26	15	30	—	164	—	—	115	47	—	—
30	—	—	23	56	—	—	98	—	—	35	63	112	—	165	—	—	78	47	52	—
31	—	—	66	22	20	—	99	—	—	19	39	36	—	167	—	—	86	36	49	—
32	18-6	—	66	113	103	23½	100	—	—	50	115	—	—	168	17-1	—	69	32	53	—
33	10-0	—	56	78	72	—	101	—	—	50	115	—	—	169	13-7	—	—	—	—	—
34	12-0	—	51	66	90	—	102	12-0	—	50	115	—	—	171	6-8	—	—	—	—	—
35	9-6	—	7	13	14	—	104	—	—	69	120	—	—	173	4-3	—	59	—	101	—
36	—	—	21	73	43	—	105	—	—	—	63	—	—	173	—	—	33	63	28	—
37	7-4	—	43	59	54	—	106	—	—	11	23	20	—	174	—	—	75	60	—	—
38	12-0	—	35	65	65	—	107	—	—	19	39	98	—	175	—	—	47	29	91	—
39	7-0	—	32	59	64	—	109	—	—	22	45	112	—	176	—	—	49	28	92	—
40	—	—	47	88	81	—	110	—	—	19	39	99	—	178	—	—	5	31	82	—
41	—	—	82	164	162	20	111	—	—	19	42	98	—	179	—	—	4	30	81	—
42	—	—	27	47	51	—	112	—	—	19	39	98	—	180	—	—	4	31	80	—
43	10-0	—	28	56	51	—	113	—	—	19	42	98	—	181	8-0*	—	15	62	65	—
44	—	—	41	83	76	—	114	—	—	19	39	123	—	182	8-0	—	28	62	61	—
45	—	—	48	69	61	—	115	—	—	19	39	98	—	184	—	—	73	110	112	—
46	—	—	26	—	—	—	116	14-0	—	31	78	—	—	185	—	—	4	110	112	—
47	9-0	2	23	—	—	—	117	—	—	31	79	—	—	186	—	—	4	110	112	—
48	8-0	1½	47	51	117	—	118	—	—	31	79	—	—	187	—	—	4	110	112	—
49	—	—	7	—	—	—	119	10-0	—	31	78	—	—	188	12-0	—	35	—	78	—
50	—	—	29	59	54	—	120	—	—	31	79	—	—	189	12-0	—	25	—	94	—
51	7-0	—	—	—	33	—	121	4-8	—	31	79	20	—	190	—	—	12	60	21	—
52	10-0	—	16	—	45	—	122	—	—	31	79	—	—	191	—	—	—	69	—	—
53	10-9	—	41	—	86	—	123	7-0	—	35	88	—	—	192	—	—	80	172	35	—
54	3-6	—	35	56	56	—	124	—	—	30	75	—	—	193	—	—	71	82	75	—
55	14-0	—	44	34	77	—	125	—	—	—	—	—	—	194	—	—	81	132	85	—
56	—	—	23	47	43	—	126	9-4*	—	29	60	—	—	195	—	—	52	166	90	—
57	10-0	—	59	68	65	—	127	—	—	45	91	84	—	196	14-7	—	35	51	47	—
58	10-0	—	61	77	80	—	129	6-0	20	52	35	94	—	197	10-0	—	10	20	18	—
59	—	—	43	89	46	—	130	12-5	—	46	31	—	—	198	8-0	—	10	20	18	—
60	5-3	—	87	94	81	—	131	—	—	58	63	56	—	199	—	—	46	—	—	—
61	—	—	85	90	65	—	132	10-0	—	54	35	88	—	—	—	—	—	—	—	—

* Treated with sewage.

Appendix D—continued.

Organic Manures and the Manurial Equivalents of Artificials per Acre applied direct to the 1928 Sugar Beet Crop.

Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitrogen. lb.	Phosphoric Acid. lb.	Potash. lb.	Lime. Cwt.	Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitrogen. lb.	Phosphoric Acid. lb.	Potash. lb.	Lime. Cwt.	Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitrogen. lb.	Phosphoric Acid. lb.	Potash. lb.	Lime. Cwt.
1	—	—	37	48	51	—	62	14-0	—	31	101	—	—	120	16-0	—	—	79	—	—
2	—	—	40	48	56	—	63	—	—	—	63	—	—	121	—	—	39	49	45	10
3	—	—	38	44	52	—	64	11-0	—	5	34	79	—	122	—	—	45	49	45	10
4	—	—	40	46	55	—	65	9-0	—	5	26	79	—	123	—	—	39	49	45	10
5	—	—	40	47	56	—	66	2-5	—	4	34	79	—	124	—	—	39	49	45	10
6	—	—	23	68	84	—	67	13-0	—	50	65	60	—	125	—	—	39	49	45	10
7	11-7	—	23	—	—	—	68	12-0	—	50	65	69	—	126	—	—	24	49	45	—
8	—	—	23	91	33	—	69	?	?	?	?	?	?	127	—	4	64	—	—	—
9	—	—	52	69	140	—	70	8-0	11	—	105	—	—	128	8-0	—	—	94	—	—
10	—	—	24	49	45	—	71	7-8	—	42	34	31	—	129	8-0	—	—	33	—	—
11	10-0	—	10	20	19	—	72	—	—	—	—	—	—	130	—	—	—	89	67	—
12	—	25	22	45	48	—	73	10-0	—	45	39	36	—	131	—	—	—	89	67	—
13	—	—	—	—	—	—	74	10-0	—	44	36	32	—	132	8-0	—	—	15	10	2
14	9-2	—	—	—	—	—	75	—	—	—	—	—	—	133	—	—	—	57	76	74
15	7-4	13½	—	—	—	—	76	—	—	—	—	—	—	134	20-0	—	—	58	76	45
16	8-1	—	3	5	58	—	77	8-7	—	20	41	—	—	135	17-0	—	—	74	129	80
17	—	—	68	68	63	—	78	—	—	26	50	124	—	136	—	—	—	59	81	60
18	12-0	—	61	60	107	—	79	12-0	—	15	—	—	—	137	13-0	—	—	24	—	63
19	—	—	37	31	67	15	80	7-3	—	—	—	—	—	138	12-0	—	—	16	—	—
20	16-7	—	36	31	47	—	81	14-0	—	24	49	45	—	139	7-6	—	—	41	23	67
21	—	—	36	31	47	—	82	12-0	—	—	—	—	—	140	5-3	—	—	—	—	22½
22	—	—	37	31	47	—	83	15-9	—	19	39	146	—	141	10-0	—	—	—	—	63
23	—	—	36	31	47	—	84	3-6	21½	8	29	168	—	142	10-0	—	—	68	126	78
24	—	—	37	59	45	20½	85	—	—	8	17	121	—	143	7-0	—	—	62	34	52
25	—	—	61	88	80	23½	86	6-0	—	65	77	104	—	144	4-2	10	22	—	—	45
26	—	—	68	63	108	—	87	10-0	—	80	—	63	—	145	—	—	—	—	—	—
27	12-0	—	55	76	70	10	88	10-7	—	7	45	28	—	146	9-2	—	—	46	44	39
28	8-0	—	18	57	45	—	89	10-9	—	8	17	15	—	147	10-0	—	—	46	44	39
29	—	—	48	98	89	—	90	11-0	—	46	31	31	—	148	10-0	—	—	37	33	34
30	—	—	50	61	66	12½	91	—	—	72	50	—	—	149	—	—	—	73	—	—
31	—	—	43	87	131	4½	92	—	—	72	56	—	12½	150	10-0	—	—	114	—	—
32	10-0	—	98	78	72	—	93	19-0	—	31	28	32	—	151	12-5	—	—	40	33	24
33	—	—	23	60	—	—	94	—	—	24	49	45	—	152	—	—	—	49	61	78
34	10-0	—	23	63	—	—	95A	—	—	40	31	56	—	153	—	—	—	52	62	—
35	—	—	69	72	112	—	96B	12-0	—	40	31	56	—	154	—	—	—	66	98	89
36	10-0	—	58	52	47	—	97	16-0	—	40	50	96	—	155	12-5	—	—	55	82	75
37	—	—	55	65	60	—	98	16-0	—	33	47	84	—	156	—	—	—	46	78	20
38	16-0	—	108	42	38	11½	99	16-0	—	35	47	84	—	157	—	—	—	23	63	78
39	—	—	28	47	—	—	100	—	—	16	33	82	—	158	15-0	—	—	16	24	75
40	—	—	13	71	—	—	101	—	—	16	33	68	—	159	—	—	—	27	51	55
41	—	—	—	—	—	—	102	12-0	—	—	—	—	—	160	15-0	—	—	17	20	29
42	19-0	—	67	75	44	—	103	12-6	—	47	59	54	—	161	—	35	—	—	—	—
43	—	—	12	—	—	—	104	7-5	—	—	—	94	—	162	1-7	—	—	78	17	—
44	—	—	12	—	—	—	105	6-0	—	18	36	34	—	163	14-9	14½	14	28	26	—
45	—	—	10	—	—	—	106	—	—	12	24	140	—	164	15-0	13½	11	26	22	—
46	—	—	10	—	—	—	107	—	—	39	31	36	—	165	14-5	14½	14	29	107	—
47	—	—	12	—	—	—	108	—	—	52	48	94	—	166	15-5	15	13	26	98	—
48	—	—	52	—	—	—	109	10-0	—	21	31	28	—	167	15-0	—	—	69	94	168
49	—	—	63	65	60	—	110	12-0	—	24	49	45	—	168	—	—	—	67	—	—
50	—	—	72	98	90	—	111	—	—	82	71	101	—	169	18-8	—	—	46	31	78
51	8-0	—	39	78	72	—	112	—	—	66	54	90	—	170	18-8	—	—	36	31	78
52	—	—	36	79	66	20	113	?	?	?	?	?	?	171	—	—	—	23	31	—
53	9-7	—	43	63	112	25	114	?	?	?	?	?	?	172	8-0	—	—	47	35	30
54	—	—	20	12	30	—	115	?	?	?	?	?	?	173	8-0	—	—	57	52	48
55	10-8	—	12	24	22	—	116	?	?	?	?	?	?	174	—	—	—	38	56	51
56	10-0	—	10	19	18	—	117	?	?	?	?	?	?	175	—	—	—	—	—	—
57	10-0	—	—	—	—	—	118	11-8	—	19	44	81	21	176	—	—	—	13	23	27
58	15-0	—	24	49	45	—	119	—	—	—	94	84	—	—	—	—	—	—	—	—

* Treated with sewage.

Appendix D—continued.

Organic Manures and the Manurial Equivalents of Artificials per Acre applied direct to the 1929 Sugar Beet Crop.

Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitro-gen. lb.	Phos-phoric Acid. lb.	Pot-ash. lb.	Lime. Cwt.	Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitro-gen. lb.	Phos-phoric Acid. lb.	Pot-ash. lb.	Lime. Cwt.	Field Number.	Dung. Loads	Fish Guts. Cwt.	Nitro-gen. lb.	Phos-phoric Acid. lb.	Pot-ash. lb.	Lime. Cwt.
1	—	—	33	—	—	—	65	—	—	—	—	—	—	129	10	—	—	—	—	—
2	—	—	39	45	—	—	66	10-6	19	—	—	—	—	130	—	—	—	63	—	—
3	—	—	40	47	—	—	67	10	17½	—	—	—	—	131	8	—	—	75	—	—
4	5-7	—	32	49	—	—	68	9-8	—	23	47	—	—	132	8	—	—	63	—	—
5	—	—	40	47	—	—	69	11-4	—	17	33	113	—	133	—	—	—	69	—	—
6	—	—	19	118	78	—	70	10	—	48	98	89	—	134	4-9	—	—	72	—	—
7	12-4	—	—	—	—	—	71	—	—	2	25	63	—	135	9-6	—	—	72	33	30
8	—	—	45	52	48	—	72	10	—	—	—	—	—	136	—	—	—	54	47	78
9	6-5	—	17	—	—	—	73	14	—	35	39	78	—	137	—	—	—	48	47	75
10	20	—	20	—	—	—	74	—	—	35	—	—	—	138	—	—	—	35	59	116
11	11-2	—	16	33	30	8½	75	—	—	17	—	—	—	139	16	—	8	50	90	—
12	—	—	15	31	36	10½	76	14	—	—	—	—	—	140	13-2	—	—	36	147	67
13	—	—	19	39	45	9	77	12	—	—	—	—	—	141	—	—	—	46	—	—
14	—	—	46	55	50	9½	78	14-9	—	—	61	—	—	142	13-3	—	—	24	49	45
15	3-5	—	23	46	42	10½	79	8-6	—	—	69	—	—	143	—	—	—	17	—	—
16	6-3	—	24	48	49	—	80	8-8*	—	34	69	63	—	144	—	—	—	31	63	116
17	4-7	—	44	49	45	—	81	8-8	—	34	69	63	—	145	—	—	—	37	63	67
18	10	—	51	69	63	—	82	—	—	60	47	—	—	146	10-9	—	—	25	46	88
19	12	—	41	68	63	—	83	—	—	8	101	26	—	147	12	—	—	46	45	63
20	12-4	—	67	64	75	—	84	—	—	34	116	62	—	148	10	—	—	33	44	59
21	—	—	57	59	80	—	85	5	—	17	35	35	—	149	10	—	—	72	—	—
22	—	—	51	52	67	6½	86	1-9	—	29	69	54	—	150	10	—	—	72	—	—
23	—	—	23	47	—	—	87	2-4	—	11	21	24	—	151	5-4	30	18	15	14	—
24	—	—	20	40	129	—	88	5-2	—	—	—	—	—	152	10	—	—	14	94	—
25	12	—	78	78	—	—	89	4-2	—	8	43	38	—	153	10-1	—	—	16	78	—
26	—	—	70	124	—	—	90	—	—	14	74	66	—	154	—	—	—	53	47	84
27	—	—	26	47	—	—	91	—	—	14	85	66	—	155	—	—	—	46	31	78
28	10-5	—	66	103	94	—	92	12	—	55	47	84	—	156	12	—	—	46	31	78
29	5-1	—	20	39	36	—	93	—	—	56	47	84	—	157	9-6	—	—	46	31	78
30	8	—	19	39	36	—	94	—	—	12	25	22	—	158	3-3	—	—	—	—	—
31	—	20	45	—	—	—	95	13	—	36	31	31	—	159	12	—	—	51	54	50
32	—	—	58	47	130	—	96	5	—	35	31	31	—	160	10	—	—	46	49	45
33	—	—	69	47	84	—	97	7	—	40	54	90	—	161	4-2	—	—	19	39	36
34	—	—	50	47	84	—	98	12	—	24	50	58	—	162	—	—	—	41	50	75
35	2	—	83	37	34	9½	99	—	—	7	14	48	—	163	—	—	—	14	32	28
36	10-4	—	19	39	36	—	100	12	—	5	10	12	—	164	—	—	—	21	7	9
37	10	—	15	29	27	—	101	—	—	7	13	45	—	165	—	—	—	58	38	47
38	—	—	—	—	—	—	102	10	—	37	39	30	—	166	9-1	—	—	—	34	9
39	6-6	—	—	61	60	—	103	—	—	56	25	30	—	167	—	36	28	124	—	—
40	—	—	—	—	—	—	104	—	—	42	49	45	—	168	—	—	—	22	57	9
41	—	—	17	—	—	—	105	10	—	—	—	—	—	169	4-7	—	—	38	52	70
42	—	—	17	—	—	—	106	10	—	23	24	42	—	170	13-4	—	—	60	63	84
43	—	—	17	—	—	—	107	—	—	45	62	140	—	171	8-4	—	—	64	83	84
44	—	—	17	—	—	—	108	—	—	84	81	224	16	172	15-6	—	—	65	63	84
45	12	—	17	—	16	—	109	9-3	—	—	—	70	—	173	9	—	—	57	52	70
46	—	—	50	65	60	—	110	—	—	66	49	45	—	174	25-7	—	—	74	52	70
47	—	—	56	78	72	—	111	—	—	42	49	45	—	175	—	—	—	57	52	70
48	—	—	60	78	72	—	112	—	—	42	49	45	—	176	—	—	—	57	52	70
49	—	—	66	98	89	—	113	—	—	42	49	45	—	177	—	—	—	54	—	—
50	8-8	—	—	89	105	—	114	—	—	42	49	45	—	178	12	—	—	62	31	110
51	11-2	—	89	31	112	—	115	—	9½	61	6	7	—	179	—	25	—	57	31	110
52	—	—	23	45	63	—	116	—	—	69	—	—	—	180	12	—	—	62	31	110
53	12	—	23	16	—	—	117	1-9	—	—	61	—	—	181	12	—	—	61	31	111
54	10	—	10	20	18	—	118	14	—	69	54	67	—	182	—	—	—	40	31	110
55	12	—	—	—	—	—	119	—	—	—	—	—	24	183	—	—	—	63	32	110
56	6-2	—	18	37	34	—	120	12	—	55	48	48	—	184	10	—	—	55	—	—
57	12	—	36	23	94	—	121	10	—	40	63	63	—	185	6-6	—	—	8	—	—
58	—	—	21	45	51	—	122	12	—	48	75	75	—	186	9-6	—	—	49	57	59
59	—	—	22	46	52	—	123	—	7½	33	30	65	—	187	2-9	—	—	35	79	64
60	—	—	22	46	51	—	124	10	—	33	30	96	—	188	—	—	—	62	42	144
61	—	—	22	40	51	—	125	—	—	—	31	—	—	189	—	—	—	36	57	68
62	10	—	46	—	130	—	126	10	—	—	—	—	—	190	10	—	—	35	31	47
63	10	—	—	—	—	—	127	10	—	—	—	—	—	191	9-2	—	—	19	38	35
64	—	—	—	—	—	—	128	—	—	4	8	9	—	—	—	—	—	—	—	—

* Treated with sewage.

APPENDIX E.

TABLE I.

Average Yields, Costs and Returns per Acre in 1927 arranged in Soil Groups.

(The yield, cost and return figures shown below are simple averages of the per acre results obtained in each field. As the cost data from some of the fields are incomplete, the number of items concerned with each individual cost average is shown.)

Soil group:—	Light to medium.		Medium to heavy.		Fen, warp and silt.		Very light.		Sewage farms.		Over-all.	
Total acreage	1076		424		516		221		66		2308	
Average size of field	12.5 acres		10.3 acres		13.6 acres		18.4 acres		13.2 acres		13.6 acres	
Unwashed yield per acre	9.430 tons		9.261 tons		10.411 tons		5.171 tons		10.855 tons		9.351 tons	
Washed yield per acre	7.862 tons		7.282 tons		8.670 tons		4.439 tons		8.959 tons		7.711 tons	
Tare	16.33%		21.50%		16.41%		14.62%		17.15%		17.31%	
Effective sugar content	16.5%		16.5%		14.8%		16.5%		14.1%		16.1%	
Sugar per acre	2914 lb.		2719 lb.		2895 lb.		1654 lb.		2832 lb.		2780 lb.	
Lb. sugar per £ labour	276		224		270		191		282		260	
Tons per acre	9.0 tons		8.3 tons		10.9 tons		4.4 tons		9.0 tons		8.9 tons	
Costs and returns:—	Per acre.		Per acre.		Per acre.		Per acre.		Per acre.		Per acre.	
	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.
Preliminary cultivations	2 14 2½	86	3 1 1½	41	2 6 11	38	2 0 1½	12	2 12 0½	5	2 18 5	182
Seed, drilling and after-cultivations	3 13 9½	84	3 19 0½	39	3 16 4½	38	3 14 7½	12	3 11 10	5	3 15 6	178
Total manures	5 9 11½	86	5 3 4½	41	2 19 11½	38	3 10 5½	12	2 5 8½	5	4 13 8	182
Total harvesting	4 17 6	83	5 15 7½	35	5 1 3½	37	3 9 4½	12	4 9 5½	5	4 19 9½	172
Total overheads	2 10 4½	86	2 9 10½	41	3 15 2½	38	1 17 0½	12	2 11 4½	5	2 14 7	182
Farm cash cost	£19 4 5½	83	£20 10 9½	35	£18 1 2½	37	£14 11 7½	12	£15 10 5½	5	£18 16 2½	172
Transport and growers' representative	2 5 11	83	2 12 0½	35	2 0 9½	37	1 13 5	12	2 5 2½	5	2 6 2	172
Total cash cost	£21 10 4½	83	£23 2 10	35	£20 2 0½	37	£16 5 0½	12	£17 16 8	5	£21 1 4½	172
Gross cash receipts	22 3 3½	83	20 14 0½	35	22 15 0	37	12 12 3½	12	22 12 7	5	21 6 9½	172
Cash {Profit	12 11	87	—	—	2 12 11½	37	—	—	4 16 11	5	5 8½	172
Loss	—	—	2 8 9½	35	—	—	3 12 9½	12	—	—	—	—
Residual value bt. fwd.	16 0½	83	13 6½	35	1 0 4	37	1 6 3	12	18 0	5	17 2½	172
Gross cost	£22 6 5	83	£23 16 4½	35	£21 2 4½	37	£17 11 3½	12	£18 13 8	5	£21 18 6½	172
Total credits	5 4 4	83	4 19 5	35	4 8 6	37	2 15 3½	12	4 1 3	5	4 16 10	172
Net cost	£17 2 1	83	£18 16 11½	35	£16 18 10½	37	£14 16 0½	12	£14 12 6	5	£17 2 8½	172
Net {Profit	£5 1 2½	83	£1 17 1½	35	£6 1 1½	37	—	—	£8 0 1	5	£4 4 1	172
Loss	—	—	—	—	—	—	£2 3 9	12	—	—	—	—
Distribution of cash profits (+) and cash losses (—)	+48 (58%) -35 (42%)		+12 (34%) -23 (66%)		+28 (78%) -9 (24%)		+3 (17%) -10 (83%)		+4 (80%) -1 (20%)		+34 (55%) -78 (46%)	
Distribution of net profits (+) and net losses (—)	+72 (87%) -11 (13%)		+23 (66%) -12 (34%)		+36 (97%) -1 (3%)		+3 (25%) -9 (75%)		+4 (80%) -1 (20%)		+138 (80%) -34 (20%)	
Net Cost	£3 10 10		£3 7 1		£3 6 7		£3 13 6		£2 12 2		£3 12 4	
Standard deviation	7 9		11 4		10 11		1 1 2		1 3 3		5 6	
Standard error of mean												

TABLE II.

Average Yields, Costs and Returns per Acre in 1928 arranged in Soil Groups.

(The yield, cost and return figures shown below are simple averages of the per acre results obtained in each field. As the cost data from some of the fields are incomplete, the number of items concerned with each individual cost average is shown.)

Soil group:—	Light to medium.		Medium to heavy.		Pen, warp and silt.		Very light.		Sewage farms.		Over-all.	
Total acreage	915.25		231		438.25		347		105		2036.5	
Average size of field	10.2 acres		9.2 acres		14.1 acres		23.1 acres		8.8 acres		11.8 acres	
Unwashed yield per acre	9.988 tons		10.132 tons		12.432 tons		8.115 tons		9.489 tons		10.185 tons	
Washed yield per acre	8.904 tons		8.853 tons		11.077 tons		6.931 tons		8.681 tons		9.035 tons	
Tare	10.98%		12.22%		11.03%		14.08%		9.65%		11.35%	
Effective sugar content	18.3%		18.5%		16.9%		17.8%		16.4%		17.9%	
Sugar per acre	3645 lb.		3682 lb.		4219 lb.		2759 lb.		3145 lb.		3624 lb.	
Lb. sugar per £ labour	346		324		387		293		318		343	
Tops per acre	7.4 tons		8.0 tons		10.0 tons		7.2 tons		10.0 tons		8.1 tons	
Costs and returns:—	Per acre.		Per acre.		Per acre.		Per acre.		Per acre.		Per acre.	
	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.
Preliminary cultivations	2 18 2½	90	2 15 6½	25	2 10 3½	31	2 11 5½	15	2 17 8½	12	2 15 9½	172
Seed, drilling and after-cultivations	3 16 6	90	3 17 0½	24	3 16 0½	31	3 10 4½	15	3 11 7	12	3 15 8½	167
Total manures	5 12 8½	90	7 6 4	24	3 9 5½	26	3 13 9½	15	3 2 4½	12	5 3 8½	167
Total harvesting	4 12 0½	90	5 1 7½	24	4 18 11½	26	3 13 9	15	4 0 6½	12	4 12 0½	167
Total overheads	2 10 5	90	2 10 4½	24	3 15 10½	26	2 1 10½	15	2 9 11½	12	2 13 7	167
Farm cash cost	£19 9 11½	90	£21 11 5½	24	£18 14 5½	26	£15 11 3	15	£16 2 1½	12	£10 1 6½	167
Transport and growers' representative	2 7 11½	90	2 4 9½	24	2 10 0½	26	2 2 11½	15	2 0 2½	12	2 6 10	167
Total cash cost	£21 17 11	90	£23 16 3½	24	£21 4 6	26	£17 14 2½	15	£18 2 4½	12	£21 8 4½	167
Gross cash receipts	24 8 8½	90	24 16 7½	24	27 17 6½	26	18 9 1½	15	20 17 7	12	24 4 8½	167
Cash { Profit	2 10 9½	90	1 0 4½	24	6 13 0½	26	14 11½	15	2 15 2½	12	2 16 4	167
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Residual values bt. fwd.	16 9	90	16 0½	24	17 3½	26	1 2 8½	15	11 0	12	16 9½	167
Gross cost	£22 14 8	90	£24 12 4	24	£22 1 9½	26	£18 16 5½	15	£18 13 4½	12	£22 5 2½	167
Total credits	5 1 5	90	6 1 5½	24	4 12 11½	26	4 3 11½	15	4 5 0½	12	5 0 3	167
Net cost	£17 13 3	90	£18 10 10½	24	£17 8 9½	26	£14 12 6	15	£14 8 4½	12	£17 4 11½	167
Net { Profit	£6 15 5½	90	£6 5 9	24	£10 8 9	26	£3 16 7½	15	£6 9 2½	12	£6 19 9½	167
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Distribution of cash profits (+) and cash losses (—)	+62 (88%) -28 (31%)		+14 (58%) -10 (42%)		+25 (96%) -1 (4%)		+8 (53%) -7 (47%)		+9 (75%) -3 (25%)		+118 (71%) -49 (29%)	
Distribution of net profits (+) and net losses (—)	+76 (84%) -14 (16%)		+21 (88%) -8 (12%)		+25 (96%) -1 (4%)		+13 (87%) -2 (13%)		+11 (92%) -1 (8%)		+146 (87%) -21 (13%)	
NET COST.												
Standard deviation	£3 14 4		£3 5 4		£3 10 5		£3 1 2		£2 9 3		£3 13 2	
Standard error of mean	7 10		13 4		13 10		10 8		14 3		6 8	

TABLE III.

Average Yields, Costs and Returns per Acre in 1929 arranged in Soil Groups.

(The yield, cost and return figures shown below are simple averages of the per acre results obtained in each field.)

Soil group:—*	Light to medium.		Medium to heavy.		Pen, warp and silt.		Very light.		Sewage farms.		Over-all.	
Total acreage*	1068.5		423		423		723.5		112		2750	
Average size of field	11.7 acres		11.8 acres		13.6 acres		31.6 acres		11.2 acres		14.4 acres	
Unwashed yield per acre†	10.341 tons		10.837 tons		13.618 tons		8.546 tons		9.650 tons		10.714 tons	
Washed yield per acre†	9.010 tons		9.376 tons		12.163 tons		7.459 tons		8.698 tons		9.386 tons	
Tar†	12.51%		12.83%		10.36%		12.44%		9.68%		12.06%	
Effective sugar content†	18.1%		18.5%		17.2%		17.6%		16.4%		17.9%	
Sugar per acre†	8648 lb.		8869 lb.		4656 lb.		2956 lb.		3178 lb.		3740 lb.	
Lb. sugar per £ labour†	376		371		501		341		364		390	
Tons per acre†	6.7 tons		7.4 tons		9.9 tons		5.7 tons		8.7 tons		7.8 tons	
Costs and returns:—	Per acre		Per acre.		Per acre.		Per acre.		Per acre.		Per acre.	
	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.
Preliminary cultivations	2 9 7½	91	2 6 11	36	1 19 8½	31	2 0 8½	23	2 6 3½	10	2 6 1½	191
Seed, drilling and after-cultivations	3 13 6½	91	4 1 4½	36	3 4 2½	31	3 6 9½	23	3 0 6½	10	3 12 0	191
Total manures	4 13 5½	91	0 1 3½	36	2 15 10½	31	5 2 4½	23	3 6 8½	10	4 12 3½	191
Total harvesting	4 7 10½	91	4 18 3	36	5 0 9	31	4 1 5½	23	4 3 10½	10	4 10 11½	191
Total overheads	2 7 6½	91	2 7 2½	36	3 12 7	31	1 17 11½	23	2 8 3	10	2 10 4½	191
Farm cash cost	£17 11 11½	91	19 15 0½	36	£16 12 11½	31	£16 9 3½	23	£15 4 7½	10	£17 11 9	191
Transport and growers' representative	2 7 2½	91	2 11 2½	36	2 17 10½	31	2 7 6½	23	1 19 3	10	2 9 4	191
Total cash cost	£19 19 2	91	£22 6 3	36	£19 10 10½	31	£18 16 10½	23	£17 8 10½	10	£20 1 1	191
Gross cash receipts	24 8 3	91	26 1 4½	36	31 1 2½	31	19 15 5½	23	21 2 5½	10	25 1 5½	191
Cash {Profit	4 9 1	91	3 15 1½	36	11 10 4½	31	18 6½	23	3 18 7	10	5 0 4½	191
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Residual values bt. fwd.	1 2 9½	91	17 7½	36	18 0½	31	1 0 2½	23	1 1 5½	10	1 0 8½	191
Gross cost	£21 1 11½	91	£23 8 10½	36	£20 8 10½	31	£19 17 8½	23	£18 5 4	10	£21 1 9½	191
Total credits	4 11 10½	91	5 10 6½	36	4 8 0	31	4 4 0	23	3 19 0	10	4 13 1½	191
Net cost	£16 10 0½	91	£17 13 5½	36	£16 0 10½	31	£15 13 8½	23	£14 6 4	10	£16 8 8½	191
Net {Profit	£7 18 2½	91	£8 7 11½	36	£15 0 4	31	£4 1 9	23	£6 16 1½	10	£8 12 9½	191
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Distribution of cash profits (+) and cash losses (—)	+67 (74%) -24 (26%)		+20 (72%) -10 (28%)		+30 (97%) -1 (3%)		+12 (52%) -11 (48%)		+7 (70%) -8 (30%)		+142 (74%) -49 (26%)	
Distribution of net profits (+) and net losses (—)	+83 (91%) -8 (9%)		+35 (97%) -1 (3%)		+30 (97%) -1 (3%)		+21 (91%) -2 (9%)		+9 (90%) -1 (10%)		+178 (93%) -13 (7%)	
Net Cost	£3 4 7		£3 14 5½		£3 8 8½		£2 9 2½		£2 12 2½		£3 3 3½	
Standard deviation	6 9½		9 1		12 3		10 3		16 6		4 7	
Standard error of mean												

* See Appendix B. † Simple averages of per acre results given in Appendix O.

TABLE IV.

Average Yields, Costs and Returns per Acre for Three Years 1927, 1928 and 1929,
combined and arranged in Soil Groups.

(The yield, cost and return figures shown below are simple averages of the three year soil groups. As the cost data from some fields are incomplete, the number of items concerned with each individual cost average is shown.)

Soil group:—	Light to medium.		Medium to heavy.		[Fen, warp and allt.		Very light		Sewage farms.		Over-all.	
Total acreage	3059.75		1078		1377.25		1291.5		283		7089.5	
Average size of field	11.5 acres		10.4 acres		13.8 acres		24.3 acres		11.1 acres		12.9 acres	
Unwashed yield per acre	9.920 tons		10.077 tons		12.154 tons		7.277 tons		9.998 tons		10.083 tons	
Washed yield per acre	8.592 tons		8.504 tons		10.638 tons		6.276 tons		8.746 tons		8.711 tons	
Tare	13.27%		15.52%		12.60%		13.71%		12.15%		13.57%	
Effective sugar content	17.6%		17.8%		16.3%		17.3%		15.6%		17.3%	
Sugar per acre	3402 lb.		3430 lb.		3923 lb.		2456 lb.		3060 lb.		3384 lb.	
Lb. sugar per £ labour	332		306		385		275		321		351	
Tops per acre	7.7 tons		7.9 tons		10.3 tons		5.8 tons		9.2 tons		8.1 tons	
Costs and returns:—	Per acre.		Per acre.		Per acre.		Per acre.		Per acre.		Per acre.	
	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.	£ s. d.	No.
Preliminary cultivations	2 14 0	267	2 14 6½	102	2 5 7	100	2 4 1½	50	2 11 8	27	2 11 9½	546
Seed, drilling and after-cultivations	3 14 7½	265	3 19 3½	99	3 12 2½	100	3 10 7½	50	3 7 11½	27	3 14 4½	541
Total manures	5 5 4½	267	6 3 8	101	3 1 9	95	4 2 2½	50	2 18 3½	27	4 16 0½	540
Total harvesting	4 12 5½	264	5 5 2	95	5 0 4	94	3 14 10½	50	4 4 7½	27	4 14 3½	530
Total overheads	2 9 5½	267	2 9 1½	101	3 14 6½	95	1 18 11½	50	2 9 10½	27	2 12 10½	540
Farm cash cost	£18 15 5½	264	£20 12 5½	95	£17 16 2½	94	£15 10 8½	50	£15 12 4½	27	£18 9 10	530
Transport and growers' representative	2 7 0½	264	2 9 4½	95	2 9 6½	94	2 1 8½	50	2 1 7	27	2 7 1½	530
Total cash cost	£21 2 5½	264	£23 1 9½	95	£20 5 9½	94	£17 12 0½	50	£17 13 11½	27	£20 16 11½	530
Gross cash receipts	23 13 5	264	23 17 4½	95	27 4 7½	94	16 18 11½	50	21 10 10½	27	28 11 0	530
Cash {Profit	2 10 11½	264	16 7	95	6 18 9½	94	—	—	3 16 10½	27	2 14 0½	530
Loss	—	—	—	—	—	—	13 1½	50	—	—	—	—
Residual values bt. fwd.	18 6½	264	15 8½	95	18 6½	94	1 8 1½	50	16 9½	27	18 3	530
Gross cost	£22 1 0	264	£23 17 0½	95	£21 4 4½	94	£18 15 1½	50	£18 10 9½	27	£21 15 2½	530
Total credits	4 19 2½	264	5 10 5½	95	4 9 10	94	3 14 5	50	4 1 8½	27	4 16 4½	530
Net cost	£17 1 9½	264	£18 7 1	95	£16 14 6½	94	£15 0 8½	50	£14 9 0½	27	£16 18 9½	530
Net {Profit	£6 11 7½	264	£5 10 3½	95	£10 10 1	94	£1 18 2½	50	£7 1 9½	27	£8 12 2½	530
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Distribution of cash profits (+) and cash losses (—)	+177 (87%) — 87 (33%)		+52 (55%) — 43 (45%)		+83 (88%) — 11 (12%)		+23 (44%) — 28 (56%)		+20 (74%) — 7 (26%)		+354 (87%) — 176 (33%)	
Distribution of net profits (+) and net losses (—)	+281 (87%) — 83 (13%)		+79 (83%) — 16 (17%)		+91 (97%) — 3 (3%)		+37 (74%) — 13 (26%)		+24 (89%) — 3 (11%)		+462 (87%) — 68 (13%)	
NET COST.												
Standard deviation	£3 11 3½		£3 8 3		£3 9 8½		£2 15 3½		£2 13 9		£3 10 8½	
Standard error of mean	4 4½		6 6		7 2½		7 9½		10 4		3 0½	

Appendix E—continued.

TABLE V.

Average Costs and Returns per Washed Ton in 1927 arranged in Soil Groups.

Soil Class:—	Light to Medium.		Medium to Heavy.		Fen, Warp and Silt.		Very Light.		Sewage Farms.		Over-all.	
	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.
Costs and returns:—												
Preliminary cultivations	6/10½	86	8/3½	41	5/5	38	9/0½	13	5/9½	5	6/11	189
Seed, drilling, etc.	9/4½	84	10/10½	39	8/9½	38	16/9½	12	8/0½	5	9/9½	178
Total manures	13/11½	86	14/2½	41	6/11	38	15/10½	12	5/1½	5	13/1½	189
Total harvesting	13/4½	83	15/10½	35	11/8½	37	15/7½	12	9/11½	5	12/11½	172
Total overheads	6/5	86	6/10	41	8/8	38	8/4	12	5/8½	5	7/1	189
Farm cash cost	48/10½	83	56/5	35	41/8	37	65/8½	12	34/7½	5	48/9½	172
Transport and G.R.	5/10	83	7/1½	35	4/8½	37	7/6½	12	5/0½	5	5/10½	172
Total cash cost	54/8½	83	63/6½	35	46/4½	37	73/2½	12	39/8½	5	54/7½	172
Gross cash receipts	56/4½	83	56/10½	35	52/5½	37	56/10	12	60/6	5	55/4½	172
Cash { Profit	1/7½	83	—	—	6/1½	37	—	—	10/9½	5	0/8½	179
Loss	—	—	6/8½	35	—	—	16/4½	12	—	—	—	—
Residual values brought forward ..	2/0½	83	1/10½	35	2/4	37	5/11	12	2/-	5	2/2½	179
Gross cost	56/9½	83	65/5	35	49/8½	37	79/1½	12	41/8½	5	56/10½	172
Total credits	13/3½	83	13/7½	35	10/2½	37	12/6½	12	9/0½	5	12/5	172
Net cost	43/6	83	51/9½	35	38/6	37	66/8	12	32/7½	5	44/6½	172
Net { Profit	12/10½	83	5/1	35	13/11½	37	—	—	17/10½	5	10/10½	172
Loss	—	—	—	—	—	—	9/10	12	—	—	—	—

Appendix E—continued.

TABLE VI.

Average Costs and Returns per Washed Ton in 1928 arranged in Soil Groups.

Soil Class:—	Light to Medium.		Medium to Heavy.		Fen, Warp and Silt.		Very light.		Sewage Farms.		Over-all.	
	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.
Costs and returns:—												
Preliminary cultivations	6/6½	90	6/8	25	4/6½	31	7/5	15	6/8½	12	6/3½	178
Seed, drilling, etc.	8/7½	90	8/9	24	6/10½	31	10/2	15	8/4½	12	8/4½	179
Total manures	12/8	90	16/6½	24	6/8½	26	10/7½	15	7/3½	12	11/3½	167
Total harvesting	10/4	90	11/5½	24	8/11½	26	10/7½	15	9/4	12	10/3½	167
Total overheads	5/8	90	5/8½	24	6/10½	26	6/0½	15	5/9½	12	5/11	167
Farm cash cost	43/9½	90	48/9	24	33/9½	26	44/10½	15	37/6½	12	42/3	167
Transport and G.R.	5/4½	90	5/0½	24	4/6½	26	6/2½	15	4/8½	12	5/2	167
Total cash cost	49/2½	90	53/9½	24	38/3½	26	51/1½	15	42/5	12	47/5	167
Gross cash receipts	54/10½	90	56/1½	24	50/4	26	53/3½	15	48/8	12	53/7½	167
Cash { Profit	5/8½	90	2/3½	24	12/0½	26	2/2	15	6/5	12	6/2½	167
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Residual values brought forward ..	1/10½	90	1/9½	24	1/6½	26	3/2½	15	1/3½	12	1/10½	167
Gross cost	51/0½	90	55/7½	24	39/10½	26	54/3½	15	43/6½	12	49/3½	167
Total credits	11/4½	90	13/8½	24	8/4½	26	12/1½	15	9/11	12	11/1	167
Net cost	39/8½	90	41/10½	24	31/6	26	42/2½	15	33/7½	12	38/2½	167
Net { Profit	15/2½	90	14/2½	24	18/10	26	11/1	15	16/0½	12	15/8½	167
Loss	—	—	—	—	—	—	—	—	—	—	—	—

**Average Costs and Returns per Washed Ton in 1929
arranged in Soil Groups.**

Soil class:—	Light to Medium.		Medium to Heavy.		Fen, Warp and Silt.		Very light.		Sewage Farms.		Over-all.	
	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.
Costs and returns:—												
Preliminary cultivations	5/6	91	5/-	36	3/3	31	5/6½	23	5/2½	10	4/11	191
Seed, drilling, etc.	8/2	91	8/8½	36	5/3½	31	8/11½	23	6/11½	10	7/8½	191
Total manures	10/4½	91	12/11½	36	4/7½	31	13/8½	23	7/8	10	9/10	191
Total harvesting	9/9	91	10/5½	36	8/3½	31	10/11	23	9/7½	10	9/8½	191
Total overheads	5/3½	91	5/0½	36	5/11½	31	5/1	23	5/6½	10	5/4½	191
Farm cash cost	39/0½	91	42/1½	36	27/4½	31	44/1½	23	35/0½	10	37/5½	191
Transport and G.R.	5/2½	91	5/5½	36	4/9½	31	6/4½	23	4/6½	10	5/3	191
Total cash cost	44/3½	91	47/7½	36	32/2	31	50/6½	23	39/6½	10	42/8½	191
Gross cash receipts	54/2½	91	55/7½	36	51/1½	31	53/0½	23	48/6½	10	53/5	191
Cash {Profit	9/11	91	8/0½	36	18/11½	31	2/6	23	9/0½	10	10/8½	191
Loss	—	—	—	—	—	—	—	—	—	—	—	—
Residual values brought forward ..	2/6½	91	1/10½	36	1/5½	31	2/9½	23	2/5½	10	2/2½	191
Gross cost	46/10	91	49/5½	36	33/7½	31	53/3½	23	42/-	10	44/11½	191
Total credits	10/3½	91	11/9½	36	7/3	31	11/3	23	9/1	10	9/11	191
Net cost	36/7½	91	37/8½	36	26/4½	31	42/0½	23	32/1½	10	35/0½	191
Net {Profit	17/6½	91	17/11	36	24/8½	31	10/11½	23	15/7½	10	18/4½	191
Loss	—	—	—	—	—	—	—	—	—	—	—	—

**Average Costs and Returns per Washed Ton for Three Years 1927,
1928 and 1929, combined and arranged in Soil Groups.**

Soil class:—	Light to Medium.		Medium to Heavy.		Fen, Warp and Silt.		Very light.		Sewage Farms.		Over-all.	
	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.	Per ton.	No.
Costs and returns:—												
Preliminary cultivations	6/3½	267	6/6½	103	4/4½	100	7/3½	50	5/11½	27	6/-	546
Seed, drilling, etc.	8/8½	265	9/5½	99	6/11½	100	11/11½	50	7/9½	27	8/7½	541
Total manures	12/4	267	14/6½	101	5/11½	95	13/5	50	6/8½	27	11/1½	540
Total harvesting	10/10	264	12/7½	96	9/7½	94	12/4½	50	9/8	27	10/11½	530
Total overheads	5/9½	267	5/10½	101	7/2	95	6/5½	50	5/8½	27	6/1½	540
Farm cash cost	43/11	264	49/1½	95	34/3½	94	51/7	50	35/9	27	42/10	530
Transport and G.R.	5/8½	264	5/10½	95	4/8	94	6/8½	50	4/9	27	5/5	530
Total cash cost	49/4½	264	55/-	95	38/11½	94	58/3½	50	40/6	27	48/3	530
Gross cash receipts	55/1½	264	56/2½	95	51/3½	94	54/4½	50	49/3	27	54/1½	530
Cash {Profit	5/9	264	1/2½	95	13/4½	94	—	—	8/9	27	5/10½	530
Loss	—	—	—	—	—	—	3/10½	50	—	—	—	—
Residual values brought forward ..	2/1½	264	1/10	95	1/9½	94	3/11½	50	1/11	27	2/1½	530
Gross cost	51/6½	264	56/10	95	40/9	94	62/3	50	42/5	27	50/4½	530
Total credits	11/7½	264	13/0½	95	8/7½	94	11/11½	50	9/4½	27	11/1½	530
Net cost	39/11½	264	43/9½	95	32/1½	94	50/3½	50	33/0½	27	39/2½	530
Net {Profit	15/2½	264	12/4½	95	19/3½	94	4/0½	50	16/2½	27	14/11	530
Loss	—	—	—	—	—	—	—	—	—	—	—	—