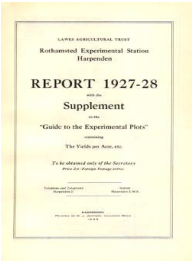
ROTHAMSTED RESEARCH

Report for 1927-28

Full Table of Content



The Classical Experiments

Rothamsted Research

Rothamsted Research (1928) *The Classical Experiments ;* Report For 1927-28, pp 119 - 130 **- DOI: https://doi.org/10.23637/ERADOC-1-85**

DATES OF SOWING AND HARVESTING (HARVEST 1927).

Field.	Crop.	Variety.	Sowing began.	Sowing finished.	Cutting began.	Carting began.*	Carting finished.*	Yield † per acre.
Gt. Knott, East ...	Wheat ...	Bountiful / Cambridge Browick	Oct. 12, '26	Oct. 14, '26	Aug. 17, '27	Aug. 29, '27	Aug. 30, '27	22 cwt.
Gt. Knott, West	Wheat ...	Million III	Oct. 7, '26	Oct. 7, '26	Aug. 23, '27	Sept. 5, '27	Sept. 5, '27	25 cwt.
Little Knott ...	Fallow ... / Grass ...	—	—	—	July 21, '27	July 26, '27	July 29, '27	—
Fosters, East ...	Winter Oats / Spring Oats	Grey, Black	Oct. 11, '26	Oct. 12, '26	Aug. 4, '27	Aug. 24, '27	Aug. 27, '27	20 cwt.
		Swedish King	Feb. 18, '27	Feb. 18, '27	Sept. 1, '27	Sept. 7, '27	Sept. 7, '27	22 cwt.
Fosters, West ...	Lucerne ...	Provence	Apr. 10, '26	Apr. 10, '26	July 19, '27	—	—	—
West Barnfield ...	Clover ...	Late Flowering Red ...	Mar. 30, '26	Mar. 30, '26	June 14, '27	June 27, '27	June 28, '27	—
Long Hoos, East...	Potatoes ...	Arran Comrade ...	May 24, '27	May 25, '27	—	Oct. 7, '27	Nov. 1, '27	7 tons
	Swedes ...	Dreadnought	June 14, '27	July 4, '27	—	Oct. 27, '27	Jan. 19, '28	19 tons
Long Hoos, West ...	Sugar Beet	Dutch Seed	June 11, '27	June 13, '27	—	Nov. 21, '27	Jan. 18, '28	3½ tons
New Zealand ...	Clover ...	Late Flowering Red ...	April 1, '26	April 1, '26	June 21, '27	July 6, '27	July 11, '27	35 cwt.
Stackyard ...	Wheat ...	Little Joss	Oct. 28, '26	Nov. 1, '26	Aug. 22, '27	Aug. 31, '27	Aug. 31, '27	17 cwt.
Gt. Harpenden ...	Barley ...	Spratt Archer	April 4, '27	April 5, '27	Sept. 6, '27	Sept. 20, '27	Oct. 5, '27	9 cwt.
	Spring Wheat	Little Joss	Mar. 9, '27	Mar. 9, '27	Sept. 5, '27	Sept. 12, '27	Sept. 13, '27	16 cwt.
Sawpit	Fallow ...	—	—	—	—	—	—	—
Sawyers	Wheat ...	Million III	Oct. 6, '26	Oct. 6, '26	Aug. 15, '27	Aug. 26, '27	Aug. 29, '27	22 cwt.
	Spring Oats	Victory	Feb. 18, '27	Feb. 19, '27	Aug. 22, '27	Aug. 30, '27	Sept. 1, '27	22 cwt.
Broadbalk ...	Wheat ... / Fallow ...	Red Standard	Oct. '8, '26	Oct. 8, '26	Aug. 26, '27	Sept. 2, '27	Sept. 3, '27	See p. 129.
Little Hoos ...	Barley ...	Plumage Archer ...	April 16, '27	April 19, '27	Sept. 2, '27	Sept. 8, '27	Sept. 13, '27	15 cwt.
Hoos	Barley ...	Spratt Archer	Mar. 25, '27	Mar. 25, '27	Sept. 1, '27	Sept. 8, '27	Sept. 21, '27	See p. 130.
Barnfield	Swedes ...	Purple Top	June 22, '27	June 22, '27	—	Nov. 4, '27	Nov. 19, '27	See p. 125.
Agdell	Wheat ...	Red Standard	Oct. 8, '26	Oct. 8, '26	Aug. 15, '27	Aug. 26, '27	Aug. 26, '27	See p. 124.
Greatfield	Grazing ...	—	—	—	—	—	—	—
Park	Hay ...	—	—	—	July 5, '27	July 18, '27	July 19, '27	See p. 126.

* In the case of roots, the dates given are those on which lifting began and finished. † Estimated yields.

DATES OF SOWING AND HARVESTING (HARVEST 1928).

Field.	Crop.	Variety.	Sowing began.	Sowing finished.	Cutting began.	*Carting began.	*Carting finished.	Yield † per acre.
Gt. Knott ...	Wheat ...	Million III	Nov. 4, '27	Nov. 5, '27	Aug. 15, '28	Aug. 29, '28	Aug. 30, '28	9 cwt.
Gt. Knott ...	Spring Oats	Swedish King	Feb. 28, '28	Feb. 29, '28	Aug. 14, '28	Aug. 30, '28	Aug. 30, '28	9 cwt.
Gt. Knott ...	Rape ...	—	May 22, '28	June 18, '28	—	—	—	—
Little Knott ...	Grazing ...	—	—	—	—	—	—	—
Fosters	Wheat ...	Little Joss	Nov. 7, '27	Nov. 14, '27	Aug. 16, '28	Aug. 28, '28	Aug. 29, '28	15½ cwt.
West Barnfield ...	Wheat ...	Million III	Oct. 19, '27	Oct. 20, '27	Aug. 11, '28	Aug. 21, '28	Aug. 24, '28	16½ cwt.
Long Hoos, East ... Long Hoos, West	Barley ...	Standwell ... Plumage Archer	Feb. 19, '28	Feb. 29, '28	Aug. 9, '28	Aug. 18, '28	Sept. 5, '28	14 cwt.
New Zealand ...	Wheat ...	Million III	Nov. 2, '27	Nov. 4, '27	Aug. 20, '28	Aug. 31, '28	Aug. 31, '28	16 cwt.
Stackyard	Winter Oats	Grey	Oct. 7, '27	Oct. 8, '27	July 28, '28	Aug. 9, '28	Aug. 9, '28	22 cwt.
Gt. Harpenden ...	Sugar Beet	Dippe	May 5, '28	May 5, '28	—	Oct. 26, '28	Nov. 3, '28	9 tons
Gt. Harpenden ...	Potatoes ...	Eclipse, Ally and Majestic	April 17, '28	April 20, '28	—	Oct. 10, '28	Oct. 16, '28	Ec. 6 tons Al. 8½ tons Ma .8 tons
Gt. Harpenden ...	Swedes ...	Buffalo, and Picton ...	May 9, '28	May 9, '28	—	Nov. 21, '28	Dec. 19, '28	Pi. 18 tons Bu. 21 tons
Pastures	Wheat ...	Swedish Iron, Squareheads Master, Yeoman II and Million III	Oct. 20, '27	Oct. 21, '27	Aug. 13, '28	Aug. 29, '28	Aug. 30, '28	24 cwt. See p. 136.
Sawyers	Barley ...	Standwell and Plumage Archer	April 10, '28	April 10, '28	Aug. 21, '28	Sept. 3, '28	Sept. 5, '28	14 cwt.
Broadbalk ...	Wheat ...	Red Standard	Oct. 18, '27	Oct. 18, '27	Aug. 6, '28	Aug. 16, '28	Aug. 16, '28	See p. 129.
Broadbalk ...	Fallow ...	—	—	—	—	—	—	—
Little Hoos ...	Clover ...	Broad Red Hay ...	April 19, '27	April 19, '27	June 22, '28	June 28, '28	June 29, '28	28 cwt.
		Broad Red Seed ...	April 19, '27	April 19, '27	Sept. 19, '28	Oct. 2, '28	Oct. 3, '28	3¼ cwt.
Hoos	Barley ...	Plumage Archer ...	April 27, '28	April 27, '28	Oct. 1, '28	Oct. 22, '28	Oct. 22, '28	See p. 130.
Barnfield	Mangolds ...	Prize-winner	May 2, '28	May 2, '28	—	Nov. 5, '28	Nov. 14, '28	See p. 125.
Agdell	Swedes ...	Dreadnought	May 25, '28	May 25, '28	—	Nov. 14, '28	Nov. 20, '28	See p. 124.
Greatfield	Grazing ...	—	—	—	—	—	—	—
Park	Hay ...	—	—	—	June 25, '28	July 2, '28	July 2, '28	See p. 126.

* In the case of roots, the dates given are those on which lifting began and finished. † Estimated yields.

CROP YIELDS ON THE EXPERIMENTAL PLOTS.

NOTES.—In each case the year refers to the harvest, *e.g.*, Wheat 1928 means wheat harvested in 1928. In the tables, total straw includes straw, cavings and chaff. These were weighed separately prior to 1928. In 1928 the figure given as total straw was arrived at as the difference : total sheaf weight—weight of grain.

CONVERSION TABLE.

1 acre ... ... =	0.405 Hectare	0.963 Feddan.
1 bushel (Imperial) =	0.364 Hectolitre (36.364 litres) ...	0.184 Ardeb.
1 lb.(pound avoirdupois)=	0.453 Kilogramme	1.009 Rotls.
1 cwt. (hundredweight, 112 lb.) ... ... =	50.8 Kilogrammes	113.0 Rotls. 1.366 Maunds.
1 ton (20 cwt. or 2240 lb.)=	1016 Kilogrammes	
1 metric quintal or Doppel Zentner(dz) =	100.0 Kilogrammes. 220.46 lbs.	
1 bushel per acre ... =	0.9 Hectolitre per Hectare ...	0.191 Ardeb per Feddan
1 lb. per acre ... =	1.12 Kilogramme per Hectare ...	1.049 Rotls per Feddan
1 cwt. per acre ... =	1.256 metric Quintals per Hectare	117.4 Rotls per Feddan
1 ton per acre ... =	25.12 metric Quintals per Hectare (dz/ha).	

In America the Winchester bushel is used=35.236 litres. 1 English bushel=1.032 American bushels.

CONVERSION TABLE.—CWTS. TO BUSHELS.

CROP.	Cwts.									
	1	2	3	4	5	10	15	20	25	30
Wheat (60 lb.) bushels	1.87	3.73	5.60	7.47	9.33	18.67	28.00	37.33	46.67	56.00
Barley (52 lb.) „	2.15	4.31	6.46	8.62	10.77	21.54	32.31	43.08	53.85	64.62
Oats (42 lb.) „	2.67	5.33	8.00	10.67	13.33	26.67	40.00	53.33	66.67	80.00

The yields of Grain in the 1925-26 Report were given for the Replicated Experiments in standard bushels of 60, 52 and 42 lb. respectively.

Average Wheat Yield of Various Countries.

Country.	Mean yield per acre, 1919-27. Cwts.	Country.	Mean yield per acre, 1919-27. Cwts.
Great Britain	17.4	Denmark	22.5
England	17.3	Argentine	6.6
Hertfordshire	16.3	Australia	6.6
France	10.8	Canada	8.6
Germany	14.1	United States	7.5
Belgium	20.0	U.R.S.S. (Europe and Asia)*	5.7

NOTE.—Figures for Great Britain, England and Hertfordshire are taken from the Ministry of Agriculture's "Agricultural Statistics," Vol. 62. Other figures from "International Year Book of Agricultural Statistics," 1922-28.
* 1924-27.

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METEOROLOGICAL RECORDS, 1927 and 1928.

	Rain.		Drainage through soil.			Bright Sunshine.	Temperature (Mean).				
	Total Fall $\frac{1}{1000}$th Acre Gauge.	No. of Rainy Days. (0.01 inch or more) $\frac{1}{1000}$th Acre Gauge.	20 ins. deep.	40 ins. deep.	60 ins. deep.		Max.	Min.	1 ft. in ground.	Solar Max.	Grass Min.
1927.	Inches.	No.	Inches.	Inches.	Inches.	Hours.	°F.	°F.	°F.	°F.	°F.
Jan. ...	2.408	18	1.865	1.995	1.842	62.9	43.9	33.5	38.3	72.3	29.4
Feb. ...	3.982	15	3.435	3.630	3.496	46.0	43.1	33.1	37.8	73.9	29.8
Mar. ...	2.384	18	0.960	1.113	1.038	124.9	50.5	38.8	42.6	101.4	33.2
April ...	1.855	12	1.205	1.588	1.484	165.6	53.0	38.6	46.0	114.9	33.3
May ...	1.187	11	0.000	0.019	0.019	226.4	61.6	42.9	52.7	121.5	37.6
June ...	3.564	19	0.745	0.739	0.723	183.7	62.5	46.8	56.3	127.8	42.1
July ...	3.112	20	1.651	2.073	1.889	130.4	65.4	53.6	59.4	121.8	49.5
Aug. ...	4.348	19	1.852	2.100	1.967	178.4	66.8	53.2	60.4	129.6	48.2
Sept. ...	5.451	17	3.704	3.899	3.823	111.3	59.7	48.1	56.2	111.5	43.8
Oct. ...	2.197	17	1.268	1.413	1.342	97.5	56.4	44.0	50.6	97.4	38.7
Nov. ...	3.008	18	2.338	2.682	2.366	54.6	46.4	36.5	44.7	72.1	33.2
Dec. ...	3.013	12	2.464	2.853	2.761	31.5	37.0	30.5	38.5	51.2	28.8
Total or Mean ...	36.509	196	21.487	24.104	22.750	1413.2	53.9	41.6	48.6	99.6	37.3
1928.											
Jan. ...	4.109	21	4.413	5.662	4.571	64.9	45.9	33.3	37.6	73.1	29.2
Feb. ...	2.075	10	1.447	1.832	1.710	100.2	48.0	35.0	39.5	88.2	29.7
Mar. ...	2.404	17	1.093	1.318	1.283	92.8	48.1	36.1	41.3	94.0	31.7
April ...	0.905	13	0.351	0.646	0.589	127.3	52.9	38.1	45.1	103.3*	32.7†
May ...	1.448	12	0.066	0.170	0.136	169.8	59.2	42.2	50.9	112.8	37.3
June ...	2.204	14	0.160	0.279	0.246	230.0	63.5	47.3	56.8	124.0	42.6
July ...	2.511	6	0.457	0.439	0.434	276.3	71.9	52.9	62.9	129.8	47.3
Aug. ...	2.216	12	0.496	0.734	0.672	193.0	66.5	52.1	60.3	121.9	47.7
Sept. ...	0.785	4	0.000	0.039	0.017	212.0	63.7	46.3	56.2	116.1	38.8
Oct. ...	3.867	19	2.287	2.458	2.284	126.5	56.4	43.1	49.8	98.2	38.0
Nov. ...	3.161	16	2.217	2.647	2.447	72.1	50.4	39.7	45.2	80.4	36.3
Dec. ...	2.773	17	2.045	2.485	2.341	48.9	41.7	32.1	38.5	61.7	28.4
Total or Mean	28.458	161	15.032	18.709	16.730	1713.8	55.7	41.5	48.7	100.3	36.6

* Mean of 21 observations only.
† Mean of 29 observations only.

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RAIN AND DRAINAGE.
MONTHLY MEAN FOR 58 HARVEST YEARS, 1870-1—1927-8.

	Rainfall.	Drainage.			Drainage % of Rainfall.			Evaporation.		
		20-in. Gauge.	40-in. Gauge.	60-in. Gauge.	20-in. Gauge.	40-in. Gauge.	60-in. Gauge.	20-in. Gauge.	40-in. Gauge.	60-in. Gauge.
	Ins.	Ins.	Ins.	Ins.	%	%	%	Ins.	Ins.	Ins.
September	2.426	0.832	0.805	0.742	34.3	33.2	30.6	1.594	1.621	1.684
October ...	3.135	1.808	1.772	1.647	57.7	56.5	52.5	1.327	1.363	1.488
November	2.774	2.102	2.149	2.024	75.8	77.5	73.0	0.672	0.625	0.750
December	2.819	2.403	2.496	2.383	85.2	88.5	84.5	0.416	0.323	0.436
January	2.419	1.984	2.182	2.083	82.0	90.2	86.1	0.435	0.237	0.336
February	2.073	1.547	1.656	1.581	74.6	79.9	76.3	0.526	0.417	0.492
March ...	2.040	1.088	1.221	1.154	53.3	59.9	56.6	0.952	0.819	0.886
April ...	2.030	0.664	0.743	0.708	32.7	36.6	34.9	1.366	1.287	1.322
May ...	2.029	0.469	0.534	0.501	23.1	26.3	24.7	1.560	1.495	1.528
June ...	2.267	0.557	0.586	0.564	24.6	25.8	24.9	1.710	1.681	1.703
July ...	2.748	0.737	0.766	0.712	26.8	27.9	25.9	2.011	1.982	2.036
August ...	2.683	0.715	0.728	0.683	26.6	27.1	25.5	1.968	1.955	2.000
Year ...	29.443	14.906	15.638	14.782	50.6	53.1	50.2	14.557	13.805	14.661

Area of each gauge $\frac{1}{1000}$th acre.

CHEMICAL ANALYSES OF FERTILISERS USED IN REPLICATED EXPERIMENTS, 1927-8.

Fertiliser.	% N	% water-sol. P_2O_5	% K_2O
Sulphate of Ammonia ...	20.67-21.20	—	—
Muriate of Ammonia ...	25.54-26.08	—	—
Nitrate of Soda	15.37	—	—
Urea	46.48	—	—
Cyanamide	19.39–19.75	—	—
Nitrochalk	10.00	—	—
Ammonium Phosphate ...	12.15	61.6	—
Superphosphate	—	16.79-16.94	—
Potassium Phosphate (K_2HPO_4)	—	40.80	54.03
Sulphate of Potash ...	—	—	49.48-49.58
Muriate of Potash	—	—	51.00-51.83
Potash Manure Salts (30%)	—	—	32.60
Nitrophoska	10.3 as NH_4 : 5.3 as NO_3	12.86	25.9
Compound Fertiliser " B "...	10.09	9.90	18.25

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First Series: Classical Experiments of Lawes and Gilbert.

CROPS GROWN IN ROTATION.

AGDELL FIELD.

PRODUCE PER ACRE.

Year.	CROP.		O. Unmanured since 1848. 5. Fallow.	O. 6. Clover or Beans.	M. ‡ Mineral Manure. No Nitrogen. 3. Fallow.	M. 4. Clover or Beans.	C. ‡ Complete Mineral & Nitrogenous Manure. 1. Fallow.	C. 2. Clover or Beans.
Average of First Twenty Courses, 1848-1927.								
	Roots (Swedes)	cwt.*	32.7	11.2	175.7	195.9	355.3	302.1
	Barley—							
	Dressed Grain	bush.	22.2	20.2	23.1	27.4	31.1	35.4
	Total Straw†	cwt.	13.6	13.4	13.7	15.7	18.8	21.8
	Beans—							
	Dressed Grain	bush.	—	13.1	—	18.2	—	22.3
	Total Straw	cwt.	—	9.2	—	13.2	—	15.3
	Clover Hay	cwt.	—	27.1	—	52.3	—	52.6
	Wheat—							
	Dressed Grain	bush.	24.0	22.3	28.1	30.6	28.9	30.4
	Total Straw†	cwt.	23.4	21.6	28.6	29.8	30.8	29.8
Twentieth Course, 1924-27.								
1924	Roots (Turnips)	cwt.	2.9	0.7	42.8	31.5	127.4	104.7
1925	Barley—							
	Dressed Grain	bush.	10.86	7.35	10.09	16.70	10.35	8.60
	Offal Grain	lb.	42.0	49.0	94.0	38.0	53.0	59.0
	Straw	lb.	633.0	678.0	602.0	866.0	626.0	541.0
	Total Straw†	cwt.	7.2	7.5	7.4	9.3	7.0	6.5
	Wt. of Dressed Grain per bushel	lb.	52.7	51.6	52.5	53.6	53.3	54.3
	Proportion of Total Grain to 100 of Total Straw		76.3	50.7	75.5	89.2	77.0	72.4
1926	Clover Hay	cwt.	—	14.2	—	32.2	—	26.3
1927	Wheat—							
	Dressed Grain	bush.	20.15	12.86	19.07	19.01	16.28	15.77
	Offal Grain	lb.	57.0	66.0	73.0	72.0	47.0	53.0
	Straw	lb.	1859.0	1846.0	2111.0	1932.0	1878.0	1693.0
	Total Straw†	cwt.	18.6	19.6	21.8	20.5	19.1	17.4
	Wt. of Dressed Grain per bush.	lb.	60.1	61.2	59.6	60.6	59.5	59.8
	Proportion of Total Grain to 100 of Total Straw		60.9	38.9	49.6	53.3	47.5	51.2
Present Course (21st), 1928.								
1928	Roots (Swedes)	cwt.	19.7	11.7	143.8	163.6	293.2	223.2

* Plots 1, 3 and 5 based upon 18 years. Plots 2, 4 and 6 based upon 17 years.
† Includes straw, cavings and chaff.
Manures applied once every four years, prior to sowing of swedes.
‡ Mineral Manure: 528 lb. superphosphate (35%); 500 lb. Sulphate of Potash; 100 lb. Sulphate of Soda; 200 lb. Sulphate of Magnesia. All per acre.
Nitrogenous Manure. 206 lb. Sulphate of Ammonia and 2,000 lb. Rape cake per acre.

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MANGOLDS—BARNFIELD, 1927 and 1928.

Roots each year since 1856. Mangolds each year since 1876.

PRODUCE PER ACRE.

	Strip.	Strip Manures. (Amounts stated as per acre).	1927.† Cross Dressings. O None.	N Nitrate of Soda (550 lbs.)	A Sulphate of Amm'nia (412 lbs.)	AC Sulphate of Amm'nia (412 lbs.) & Rape Cake	C Rape Cake (2,000 lbs.)	1928. Cross Dressings. O None.	N Nitrate of Soda (550 lbs.)	A Sulph at of Amm'nia (412 lbs.)	AC Sulphate of Amm'nia (412 lbs.) & Rape Cake	C Rape Cake (2,000 lbs.)	50-year Average 1876–1928.†† Cross Dressings. O None.	N Nitrate of Soda (550 lbs.)	A Sulphate of Amm'nia (412 lbs.)	AC Sulphate of Amm'nia (412 lbs.) & Rape Cake	C Rape Cake (2,000 lbs.)
ROOTS.			Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
	1	Dung only (14 tons)	12.22	15.02	15.66	16.92	14.39	12.11	27.07	20.33	18.30	16.21	17.47	26.16	21.70	23.58	23.53
	2	Dung, Superphosphate (3½ cwts.), Sulphate of Potash (500 lbs.) ...	10.01	14.77	15.41	17.34	15.37	16.53	29.25	26.98	29.15	24.68	18.94	26.68	24.71	27.57	26.50
	4	Complete Minerals: Super and Potash as 2, Salt (200 lb.) Sulphate of Magnesia (200 lb.)	1.07	(*a*) 7.90* (*b*) 6.69	6.59	13.42	9.50	4.25	(*a*)23.30* (*b*)21.84	19.80	29.22	23.67	4.60	(*a*)18.11** (*b*)17.81	14.37	26.06	20.96
	5	Superphosphate only (3½ cwt.) ...	1.77	6.90	8.08	12.79	10.89	3.47	18.44	9.39	9.55	10.68	4.47	14.63	6.70	9.49	10.16
	6	Super (3½ cwt.) Sulphate of Potash (500 lbs.)	0.98	4.04	4.39	10.96	7.51	4.03	19.15	18.26	24.73	19.76	4.03	15.12	13.50	22.55	18.14
	7	Super (3½ cwt.) Sulphate of Magnesia (200 lbs.) and Sodium Chloride (200 lbs.)	1.20	5.37	4.97	12.20	8.65	4.17	20.12	18.93	24.62	21.40	4.86	16.04	14.70	22.31	19.10
	8	No Minerals	1.17	3.36	4.35	10.54	9.07	2.85	11.65	6.05	8.89	9.24	3.34	9.61	5.32	8.52	8.89
	9	Sodium Chloride (200 lbs.), Nit. Soda (550 lb.), Sulph. Potash (500 lbs.) and Sulph. Mag. (200 lbs.)	6.05	—	—	—	—	21.27	—	—	—	—	—	—	—	—	—
LEAVES.																	
	1	Dung only (14 tons)	3.14	3.17	3.63	4.51	4.01	2.97	4.47	3.79	3.22	2.60	3.04	4.65	4.93	5.25	4.54
	2	Dung, Superphosphate (3½ cwts.), Sulphate of Potash (500 lbs.) ...	2.35	3.43	3.73	4.79	4.08	2.82	4.50	4.52	6.07	4.66	3.16	5.15	5.49	6.29	4.80
	4	Complete Minerals: Super and Potash as 2, Salt (200 lbs.), Sulphate of Magnesia (200 lbs.)	0.23	(*a*) 1.50* (*b*) 1.37	1.60	3.89	2.35	0.85	(*a*) 3.47* (*b*) 3.73	2.41	5.01	3.40	1.04	(*a*)4.05** (*b*) 4.09	2.88	5.33	3.37
	5	Superphosphate only (3½ cwts.) ...	0.41	1.17	1.70	3.59	2.67	0.99	2.60	2.58	2.83	2.75	1.05	3.19	2.61	3.29	2.84
	6	Super (3½ cwts.), Sulphate of Potash (500 lbs.)	0.25	0.66	0.72	2.44	1.31	0.87	2.05	2.31	4.60	2.61	0.93	3.04	2.81	5.20	2.87
	7	Super (3½ cwts.), Sulphate of Magnesia (200 lbs.) and Sodium Chloride (200 lbs.)	0.28	0.62	0.63	2.52	1.21	0.92	3.08	3.13	5.05	3.47	1.10	3.31	3.01	5.23	3.31
	8	No Minerals	0.30	0.54	0.92	2.90	1.92	0.86	3.76	2.75	3.27	2.99	0.98	3.19	2.52	3.30	2.84
	9	Sodium Chloride (200 lbs.), Nit. Soda (550 lbs.), Sulph. Potash (500 lbs.) and Sulph. Mag. (200 lbs.) ...	0.91	—	—	—	—	3.78	—	—	—	—	—	—	—	—	—

* From 1904 onwards plot 4 N has been divided, 4 (*a*) receiving Sulphate of Potash, Sulphate of Magnesia, Sodium Chloride and Nitrate of Soda, amounts as above; 4 (*b*) receiving Calcium Chloride (190 lbs.), Potassium Nitrate (570 lbs.), and Calcium Nitrate (100 lbs.). Nitrogenous manures are applied as to one-third at time of sowing and two-thirds as top dressing at a later date, except with Rape Cake which all goes on with seed.

† In 1927 Mangolds failed and the whole field was re-sown with Swedes. In this year only one-third of the nitrogen was supplied, this being given at time of sowing of mangolds.

†† Excluding 1885, when nitrogenous fertilisers were not applied, owing to poor crop, and 1908 and 1927 when the crop was swedes.

** 23 years only, 1904–1928.

HAY—THE PARK GRASS PLOTS, 1927-1928.

Plot.	Manuring (amounts stated are per acre).		1927 Yield of Hay per acre. 1st Crop.	2nd§ Crop.	Total.	1927 Dry Matter per acre. 1st Crop.	2nd Crop.	Total.	1928 Yield of Hay per acre. 1st Crop.	2nd§ Crop.	Total.	1928 Dry Matter per acre. 1st Crop.	2nd Crop.	Total.	Plot.
			cwt.	cwt.	cwt.	lb.	lb.	lb.	cwt.	cwt.	cwt.	lb.	lb.	lb.	
1	Single dressing (206 lb.) Sulphate of Ammonia (=43 lb. N.); (with Dung also 8 years 1856–63)	not limed	5.0	11.8	16.8	427	1057	1484	8.0	3.2	11.2	652	286	938	1
		limed ...	9.8	8.1	17.9	805	729	1534	14.8	4.2	19.0	1238	380	1618	
2	Unmanured (after Dung 8 years, 1856–63)	not limed	5.3	8.6	13.9	432	769	1201	11.2	3.3	14.5	904	299	1203	2
		limed ...	4.4	6.1	10.5	336	543	879	12.0	1.7	13.7	948	152	1100	
3	Unmanured	not limed	4.5	5.5	10.0	346	492	838	9.3	2.1	11.4	742	188	930	3
		limed ...	2.8	5.6	8.4	203	499	702	7.8	1.6	9.4	634	144	778	
4-1	Superphosphate of Lime (3½ cwt.) ...	not limed	6.0	8.0	14.0	434	714	1148	16.0	3.1	19.1	1236	275	1511	4-1
		limed ...	3.1	7.4	10.5	221	659	880	8.5	2.0	10.5	649	179	828	
4-2	Superphosphate of Lime (3½ cwt.) and double dressing (412 lb.) Sulphate of Ammonia (=86 lb. N.)	not limed	4.9	12.6	17.5	368	1133	1501	11.6	2.0	13.6	1039	183	1222	4-2
		limed ...	15.6	14.8	30.4	1430	1324	2754	32.2	7.3	39.5	2931	652	3583	
5-1	(N. half) Unmanured following double dressing Amm. Salts (=86 lb. N.) 1856–97...	not limed	5.5	5.8	11.3	433	519	952	6.0	3.7	9.7	492	327	819	5-1
5-2	(S. half) Superphosphate (3½ cwt.); Sulphate of Potash (500 lb.); following double dressing Amm. Salts (=86 lb. N.) 1856–97	not limed	10.2	13.0	23.2	787	1169	1956	14.8	6.6	21.4	1267	593	1860	5-2
6	Complete Mineral Manure as Plot 7; following double dressing Amm. Salts (=86 lb. N.) 1856-68	not limed	17.7	12.1	29.8	1330	1084	2414	20.9	7.1	28.0	1796	639	2435	6
7	Complete Mineral Manure: Super. (3½ cwt.); Sulphate of Potash (500 lb.); Sulphate of Soda (100 lb.); Sulphate of Magnesia (100 lb.).	not limed	19.9	13.5	33.4	1320	1208	2528	21.7	13.1	34.8	1837	1177	3014	7
		limed ...	14.8	12.8	27.6	1142	1149	2291	36.2	15.1	51.3	3117	1351	4468	
8	Mineral Manure without Potash ...	not limed	10.8	11.3	22.1	633	1016	1649	14.4	7.4	21.8	1149	658	1807	8
		limed ...	7.2	7.9	15.1	488	704	1192	12.2	3.7	15.9	1096	328	1424	
9	Complete Mineral Manure and double dressing (412 lb.) Sulphate of Ammonia (=86 lb. N.)	not limed	30.8	20.4	51.2	2203	1826	4029	31.0	7.2	38.2	2646	645	3291	9
		limed ...	42.6	21.0	63.6	3138	1881	5019	50.6	8.1	58.7	4628	723	5351	
10	Mineral Manure (without Potash) and double dressing Amm. Salts (=86 lb. N.)	not limed	10.5	14.5	25.0	759	1301	2060	22.3	5.0	27.3	1933	451	2384	10
		limed ...	27.9	19.7	47.6	2276	1762	4038	39.0	10.9	49.9	3531	974	4505	

11-1	Complete Mineral Manure and treble dressing (618 lb.) Sulphate Ammonia (129 lb. N.)	not limed	41.4	28.6	70.0	2849	2565	5414	52.9	13.7	66.6	3985	1223	5208	11-1
		limed ...	32.9	23.8	56.7	2501	2132	4633	63.1	10.1	73.2	5574	906	6480	
11-2	As Plot 11-1 and Silicate of Soda ...	not limed	50.4	15.1	65.5	3257	1351	4608	61.9	14.5	76.4	4741	1302	6043	11-2
		limed ...	43.1	16.3	59.4	3110	1458	4568	59.7	16.2	75.9	5252	1449	6701	
12	Unmanured	not limed	7.4	8.3	15.7	591	739	1330	10.9	6.9	17.8	812	621	1433	12
13	Dung (14 tons) in 1905, and every fourth year since (omitted 1917), Fish Guano (6 cwt.) in 1907 and every fourth year since	not limed	39.4	14.8	54.2	2689	1326	4015	46.6	11.8	58.4	3615	1056	4671	13
		limed ...	35.5	14.8	50.3	2748	1329	4077	38.8	9.5	48.3	3178	855	4033	
14	Complete Mineral Manure and double dressing (550 lb.) Nitrate of Soda (=86 lb. N.)	not limed	48.1	16.7	64.8	3273	1492	4765	50.3	12.8	63.1	4534	1149	5683	14
		limed(sun)	37.1	11.1	48.2	2709	997	3706	50.6	7.1	57.7	4304	632	4936	
		lmd.(shade)	40.2	15.4	55.6	2590	1379	3969	39.2	7.7	46.9	3260	691	3951	
15	Complete Mineral Manure as Plot 7; following double dressing Nitrate of Soda (=86 lb. N., 1858-1875) ...	not limed	19.9	11.9	31.8	1554	1062	2616	25.7	7.9	33.6	2233	711	2944	15
		limed ...	12.4	9.0	21.4	1028	808	1836	27.0	3.5	30.5	2332	314	2646	
16	Complete Mineral Manure and single dressing (275 lb.) Nitrate of Soda (=43 lb. N.)	not limed	32.9	11.9	44.8	2458	1062	3520	38.0	10.0	48.0	3270	893	4163	16
		limed ...	26.6	9.9	36.5	1947	884	2831	35.6	6.2	41.8	3074	555	3629	
17	Single dressing (275 lb.) Nitrate of Soda (=43 lb. N.)	not limed	15.8	8.5	24.3	1031	765	1796	21.8	7.3	29.1	1690	652	2342	17
		limed ...	12.7	9.6	22.3	1105	857	1962	24.7	4.1	28.8	2043	365	2408	
18	Mineral Manure (without Super.), and double dressing Sulphate of Amm. (=86 lb. N.), 1905 and since; following Minerals and Amm. Salts supplying the constituents of 1 ton of Hay, 1865-1904	not limed	14.3	23.5	37.8	987	2106	3093	13.9	8.8	22.7	1293	787	2080	18
		limed 6788 lb.	44.4	26.3	70.7	3222	2360	5582	48.2	11.2	59.4	4186	1002	5188	
		limed (3951 lb.)	36.2	22.0	58.2	2370	1975	4345	31.5	6.9	38.4	2817	617	3434	
19	Farmyard Dung (14 tons) in 1905 and every fourth year since (omitted in 1917), following Nitrate of Soda (=43 lb. N.) and Minerals, 1872-1904.	not limed	19.9	13.3	33.2	1545	1193	2738	22.3	11.4	33.7	2034	1021	3055	19
		limed 3150 lb.)	12.6	9.0	21.6	920	802	1722	18.4	6.6	25.0	1642	592	2234	
		limed (570 lb.)	19.1	10.1	29.2	1450	904	2354	24.4	6.5	30.9	2165	584	2749	
20	Farmyard Dung (14 tons) in 1905 and every fourth year since (omitted in 1917); each intervening year Plot 20 receives Sulphate of Potash (100 lb.); Superphosphate (200 lb.) and 1½ cwt. Nitrate of Soda (=26 lb. N.); following Nitrate of Potash and Superphosphate, 1872-1904	not limed	28.3	19.4	47.7	2217	1737	3954	37.3	10.3	47.6	3508	924	4432	20
		limed (2772 lb.)	20.4	12.8	33.2	1647	1142	2789	34.7	6.2	40.9	3120	557	3677	
		limed (570 lb.)	25.5	12.2	37.7	1924	1093	3017	37.5	6.7	44.2	3337	600	3937	

Ground lime was applied to the southern portion (limed) of the plots at the rate of 2000 lb. to the acre in the winters of 1903-4, 1907-8, 1915-16, 1923-24,and at the rate of 2500 lb. to the acre in the winter of 1920-21, except where otherwise stated.

Up to 1914 the limed and unlimed plot results were not separately given in the Annual Report, but the mean of the two was given. From 1915 onwards the separate figures are given.

§ The second crop was carted green; the figures given are estimated hay yields, calculated from the dry matter.

The Park Grass Plots.

BOTANICAL COMPOSITION, PER CENT., 1925, 1st CROP.

Plot.	Manuring.	Liming.	Gramineæ.	Leguminosæ.	Other Orders	"Other Orders" consist largely of	Plot.
3	Unmanured	Limed ...	73.4	5.4	21.2	Plantago lanceolata ; Centaurea nigra	3
		Unlimed ...	61.1	5.1	33.8	Plantago lanceolata	
7	Complete Mineral Manure ...	Limed ...	75.2	1.2	23.6	Heracleum sphondylium ; Rumex acetosa	7
		Unlimed ...	72.7	6.4	20.9	Heracleum sphondylium ; Rumex acetosa	
9	Complete Mineral Manure and double Amm. Salts	Limed ...	99.5	0.0	0.5	——	9
		Unlimed ...	96.7	0.0	3.3	Heracleum sphondylium ; Rumex acetosa	
14	Complete Mineral Manure and double Nitrate of Soda ...	Limed (sun)	83.6	0.0	16.4	Anthriscus sylvestris ; Taraxacum vulgare	14
		,, (shade)	90.6	5.7	3.7	Anthriscus sylvestris	
		Unlimed ...	86.3	0.2	13.5	Anthriscus sylvestris ; Taraxacum vulgare ; Rumex acetosa	
15	As plot 7 following double Nitrate of Soda, 1858–75	Limed ...	66.1	14.8	19.1	Plantago lanceolata ; Ranunculus spp.	15
		Unlimed ...	62.1	4.7	33.2	Plantago lanceolata ; Achillea millefolium	
17	Single Nitrate of Soda	Limed ...	78.1	0.5	21.4	Plantago lanceolata ; Centaurea nigra	17
		Unlimed ...	74.7	0.1	25.2	Plantago lanceolata	
18	Mineral Manure (without Super.) and double Sulphate Amm. 1905 and since	L. 6,788 lb.	92.0	0.2	7.8	Rumex acetosa ; Centaurea nigra	18
		L. 3,951 lb.	88.5	0.0	11.5	Rumex acetosa	
		Unlimed ...	87.0	0.0	13.0	Rumex acetosa ; Centaurea nigra	
19	Farmyard Dung in 1905 and every 4th year since (omitted 1917) ...	L. 3,150 lb.	84.8	1.5	13.7	Ranunculus spp. ; Anthriscus sylvestris	19
		L. 570 lb....	75.7	3.2	21.1	Ranunculus spp. ; Rumex acetosa...	
		Unlimed ...	82.6	3.9	13.5	Ranunculus spp. ; Rumex acetosa...	
20	Farmyard Dung in 1905 and every 4th year since (omitted in 1917), each intervening year Sulphate of Potash, Super., and Nitrate of Soda	L. 2,772 lb.	63.3	4.3	32.4	Ranunculus spp. ; Anthriscus sylvestris ; Taraxacum vulgare	20
		L. 570 lb....	76.9	2.5	20.6	Anthriscus sylvestris ; Rumex acetosa	
		Unlimed ...	68.8	10.4	20.8	Centaurea nigra ; Anthriscus sylvestris ; Ranunculus spp.	

WHEAT—BROADBALK FIELD.

Plot.	Manurial Treatment (amounts stated are per acre).	1927 (lower part) 84th successive crop.							1928 (upper part): after 2 years fallow.								77-year Average 1852–1928	
		Dressed Grain.			Offal Grain per acre.	Straw per acre.	Total† Straw per acre.	Proportion of Total Grain to 100 of Total Straw.	Dressed Grain.			Offal Grain per acre.	Straw per acre.	Total† Straw per acre.	Proportion of Total Grain to 100 of Total Straw.	Dressed Grain per acre.	Total Straw per acre.
		Yield per acre.	Weight per bushel.	Yield per acre.					Yield per acre.	Weight per bushel.	Yield per acre.						
		bush.	lb.	cwt.	lb.	lb.	cwt.		bush.	lb.	cwt.	lb.	lb.	cwt.		bush.	cwt.
2A	Farmyard Manure (14 tons)	19.5	58.1	10.1	132	2108	24.0	47.3	41.1	64.9	23.8	75	5225	51.3	47.5	26.3**	32.3**
2B	Farmyard Manure (14 tons)	24.2	57.9	12.5	156	2667	30.7	45.7	48.4	65.4	28.3	89	6283	61.4	47.6	33.2	34.5
3	Unmanured since 1839	6.9	59.2	3.7	39	593	6.9	58.4	27.9	63.9	15.9	56	2730	27.8	59.4	11.8	9.9
5	Complete Mineral Manure§§	6.5	59.2	3.4	28	590	6.7	55.6	35.2	64.5	20.3	63	3505	34.8	60.4	13.6	11.6
6	As 5, and 206 lb. Sulphate of Ammonia	12.5	58.6	6.5	53	1255	13.9	50.5	47.3	64.7	27.3	77	4970	48.7	58.0	21.7	20.5
7	As 5, and 412 lb. Sulphate of Ammonia ...	21.5	56.8	10.9	174	2730	30.3	41.4	67.4*	60.6*	36.5*	31*	6165*	57.8*	63.6*	30.5	32.2
8	As 5, and 618 lb. Sulphate of Ammonia ...	25.9	54.6	12.6	193	3105	35.3	40.7	57.2	65.6	33.4	116	6105	62.0	55.6	34.3	40.0
9	As 5, and 275 lb. Nitrate of Soda	16.6	57.6	8.6	122	1838	20.7	46.7	56.1	61.2	30.6	40	5298	50.3	61.5	23.8††	24.9††
10	412 lb. Sulphate of Ammonia	12.0	56.9	6.1	145	1358	16.5	44.8	47.0	61.6	25.8	44	4375	42.8	61.4	18.8	18.1
11	As 10, and Super-phosphate (3½ cwt.)	8.9	52.4	4.2	160	1565	18.8	29.9	56.9	61.9	31.4	62	5838	57.7	56.5	21.4	21.8
12	As 10, and Super. (3½ cwt.) and Sulph. Soda (366 lb.)	13.5	55.0	6.6	184	1895	22.5	36.7	57.3	64.5	33.0	95	5585	55.5	61.3	27.0	27.1
13	As 10, and Super. (3½ cwt.) and Sulph. Potash (200 lb.)	17.4	56.5	8.8	158	2223	25.2	40.4	55.2	65.0	32.0	98	5755	56.2	58.6	29.2	30.8
14	As 10, and Super. (3½ cwt.) and Sulph. Magnesia (280 lb.)	16.3	56.1	8.1	125	2043	22.8	40.9	58.6	63.0	33.0	67	5658	54.7	61.6	26.7	27.0
15	As 5, and 412 lb. Sulphate of Ammonia, all applied in autumn	11.1	57.0	5.6	90	1208	14.2	45.8	52.3	64.3	30.0	62	5813	56.6	54.2	27.6	28.2
16	As 5, and 550 lb. Nitrate of Soda	18.1	55.5	8.9	170	2330	26.2	39.7	56.1	64.6	32.4	92	5615	55.8	59.8	29.7††	35.3††
17 } 18 }	Minerals alone as 5 or 412 lb. Sulphate of Ammonia alone in alternate years	M6.5 A15.3	58.2 59.2	3.4 8.1	65 189	840 2280	9.3 26.0	42.3 38.3	A51.8 M38.8	64.3 64.6	31.4 22.4	88 70	5580 3908	54.9 38.7	58.7 59.6	A27.9 M14.1	28.3 12.6
19	Rape Cake (1889 lb.)	10.1	58.3	5.2	184	2268	26.3	26.2	52.7	64.5	30.4	94	5385	53.3	58.7	20.9‡	22.9‡
20	As 7, without Super.	—	—	—	—	—	—	—	39.3	64.3	22.5	76	4332	44.2	52.5	17.7§	20.0§

† Includes Straw, cavings and chaff. 1927, top portion fallowed; 1928, bottom portion fallowed. * Estimated from half plot.
** 29 years only, 1900–1928. †† 44 years only, 1885–1928. ‡ 36 years only, 1893–1928. § 19 years only, 1906–1928 (no crop in 1912, 1914, 1926 and 1927).

In 1926 and 1927 the crop was confined to the lower part of the field, the upper part being completely fallowed for 2 years. This was the first complete fallow since the experiment began in 1843. In October, 1927, the upper part was sown with wheat, and the yields for 1928 are given above.

Sulphate of Ammonia is applied as to one-third in autumn and two-thirds in spring, except for plot 15. Nitrate of Soda is all given in spring, there being two applications at an interval of a month on plot 16.

§§ Complete Mineral Manure: 3½ cwt. Super, 200 lb. Sulph. Potash, 100lb. Sulph. Soda, 100 lb. Sulph. Magnesia.

PERMANENT BARLEY PLOTS, Hoos Field, 1927 and 1928.

PRODUCE PER ACRE.

Plot.	Manuring (amounts stated are per acre)	1927. Dressed Grain. Yield per acre. bush.	1927. Dressed Grain. Weight per bush. lb.	1927. Dressed Grain. Yield per acre. cwt.	1927. Offal Grain per acre. lb.	1927. Straw per acre. lb.	1927. Total†† Straw per acre. cwt.	1927. Proportion of Total Grain to 100 of Total Straw.	1928. Dressed Grain. Yield per acre. bush.	1928. Dressed Grain. Weight per bush. lb.	1928. Dressed Grain. Yield per acre. cwt.	1928. Offal Grain per acre. lb.	1928. Straw per acre. lb.	1928. Total†† Straw per acre. cwt.	1928. Proportion of Total Grain to 100 of Total Straw.	76 years' Average Yield 1852–1928.† Dressed Grain per acre. bush.	76 years' Average Yield 1852–1928.† Total†† Straw per acre. cwt.
1O	Unmanured	9.1	52.1	4.2	16	338	4.6	94.8	5.0	44.0	2.0	18	363	4.1	51.3	13.4	7.8
2O	Superphosphate only (3½ cwt.)	11.9	49.9	5.3	27	506	7.2	76.5	11.9	46.0	4.9	31	701	8.1	63.9	19.0	9.8
3O	Alkali Salts only (200 lb. Sulphate of Potash; 100 lb. Sulphate of Soda; 100 lb. Sulphate of Magnesia)	4.9	50.5	2.2	53	707	11.6	22.9	6.5	43.1	2.5	21	743	8.4	32.0	14.3	8.7
4O	Complete Minerals; as 3O with Superphosphate (3½ cwt.)	5.3	50.8	2.4	139*a*	1507	22.5	16.2	10.6	45.5	4.3	37	1133	13.1	35.2	19.0	11.2
5O	Potash (200 lb.) and Superphosphate (3½ cwt.)	7.7	49.8	3.4	18	374	6.1	58.7	5.4	42.0	2.0	28	737	8.1	28.2	15.5	9.4
1A	Ammonium Salts only (206 lb. Sulphate of Ammonia)	23.2	50.8	10.5	29	902	11.1	97.3	7.4	42.8	2.8	25	520	6.3	47.8	23.7	13.7
2A	Superphosphate and Amm. Salts	16.2	49.8	7.2	40	723	9.6	78.9	11.8	44.3	4.7	28	781	9.3	52.8	35.8	20.4
3A	Alkali Salts and Amm. Salts	17.0	47.8	7.2	40	1059	14.7	51.6	11.2	43.8	4.4	39	1015	12.2	38.5	25.8	16.0
4A	Complete Minerals and Amm. Salts	21.7	50.9	9.8	42	1304	18.0	56.9	11.4	45.8	4.7	23	1275	14.7	33.1	39.3	23.6
5A	Potash, Super. and Amm. Salts	21.4	49.0	9.4	38	1249	17.0	57.2	3.0	42.0	1.1	8	891	9.9	12.2	33.8	21.7
1AA	Nitrate of Soda only (275 lb.)	29.6	51.5	13.6	44	1403	16.9	82.6	8.8	42.0	3.3	41	924	10.8	34.1	24.3*	15.4*
2AA	Superphosphate and Nitrate of Soda	33.6	50.0	15.0	44	1337	16.0	96.1	13.8	44.8	5.5	28	1243	14.7	39.0	38.8*	23.1*
3AA	Alkali Salts and Nitrate of Soda	19.2	51.3	8.8	43	1507	22.0	41.6	9.1	41.5	3.4	39	1337	14.7	25.4	24.5*	16.6*
4AA	Complete Minerals and Nitrate of Soda	30.7	51.0	14.0	44	1540	20.2	71.1	11.1	44.5	4.4	23	1414	17.8	25.8	37.7*	23.6*
1AAS	As Plot 1AA and Silicate of Soda (400 lb.)	31.9	51.4	14.6	44	864	12.0	125.1	11.0	43.5	4.3	34	1007	11.4	40.3	30.2*	18.2*
2AAS	As Plot 2AA and Silicate of Soda (400 lb.)	33.8	50.4	15.2	49	1474	18.1	86.5	11.0	46.0	4.5	19	1018	12.6	37.2	39.7*	23.9*
3AAS	As Plot 3AA and Silicate of Soda (400 lb.)	24.1	50.6	10.9	29	1067	14.2	78.9	8.4	46.0	3.4	32	946	12.1	30.8	31.2*	19.9*
4AAS	As Plot 4AA and Silicate of Soda (400 lb.)	29.8	51.3	13.6	45	1557	20.4	68.7	9.7	46.0	4.0	20	1243	16.4	25.5	39.9*	25.4*
1C	Rape Cake only (1000 lb.)	30.4	52.3	14.2	29	1485	17.9	80.4	10.1	42.8	3.8	23	1141	13.6	29.8	35.5	20.6
2C	Superphosphate and Rape Cake	40.9	50.5	18.4	37	1672	20.6	91.2	12.9	44.7	5.2	20	1287	15.5	34.3	38.1	22.0
3C	Alkali Salts and Rape Cake	21.1	48.5	9.2	65	982	13.6	71.8	7.0	43.5	2.7	20	908	11.3	25.7	33.7	20.4
4C	Complete Minerals and Rape Cake	30.9	50.6	14.0	39	1526	19.2	74.5	9.9	44.0	3.9	20	1419	16.3	24.9	37.5	22.6
7-1	Unmanured (after dung (14 tons) for 20 years 1852-71)	12.9	50.4	5.8	31	636	9.2	66.1	7.6	41.5	3.7	34	913	11.1	27.9	22.5‡	13.5‡
7-2	Farmyard Manure (14 tons)	40.4	50.5	18.2	63	2004	28.3	66.5	8.6	42.0	5.1	37	1166	13.2	26.8	44.6	28.1
6-1	Unmanured since 1852	5.2	50.5	2.4	20	266	4.3	58.7	7.4	43.0	2.8	25	515	6.2	49.3	14.7	8.6
6-2	Ashes from Laboratory furnace	8.4	48.8	3.7	27	420	6.8	57.4	12.0	44.5	4.8	33	704	8.6	59.0	15.7	9.3
1N	Nitrate of Soda only (275 lb.)	25.3	49.4	11.2	43	1232	15.5	74.4	9.4	44.3	2.8	18	924	10.6	36.8	28.7§	17.8§
2N	Nitrate of Soda only (275 lb.)	26.7	48.8	11.7	34	1205	16.1	74.2	12.7	44.8	3.2	28	2593	29.0	18.4	31.7§§	20.0§§

† 1912, all plots were fallowed. * 60 years, 1868-1928. ‡ 56 years, 1872-1928. § 75 years, 1853-1928. §§ 69 years, 1859-1928.
a A large amount of black medic seed in Offal Grain. †† Includes straw, cavings and chaff.