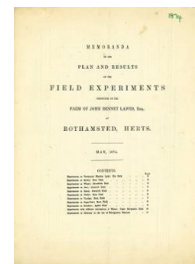


Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Memoranda of the Field Experiments at Rothamsted May 1874



[Full Table of Content](#)

Experiments on Permanent Meadow Land; the Park

Rothamsted Research

Rothamsted Research (1875) *Experiments on Permanent Meadow Land; the Park* ; Memoranda Of The Field Experiments At Rothamsted May 1874, pp 2 - 2 - DOI:

<https://doi.org/10.23637/ERADOC-1-238>

THE PARK.

EXPERIMENTS WITH DIFFERENT MANURES ON PERMANENT MEADOW LAND.

The Land has probably been laid down with Grass for some centuries. No fresh seed has been artificially sown within the last 40 years certainly; nor is there record of any having been sown since the Grass was first laid down. The experiments commenced in 1856, at which time the character of the herbage appeared uniform over all the Plots. Excepting as explained in the Table and in the foot-notes, the same description of Manure has been applied year after year to the same Plot.

(Area under experiment, about 7 acres.)

PLOTS.	Manures, per acre, per Annum.					Produce per Acre, weighted as Hay.					Average per Annum; 1856-1873.	PLOTS.
	1869.	1870.	1871.	1872.	1873.	1870.	1871.	1872.	1873.	1870.		
1	{1856-63, 8 years, 14 tons Farmyard Manure, and 200 lbs. Ammonia-salts; average produce 49½ cwt.}	61	16½	43½	31½	29½	44½	1
2	{1864 and since, 200 lbs. Ammonia-salts alone; average produce (10 years, 1864-73) 40½ cwt.}	..	..	..	..	55½	13½	33½	25½	18½	38½	2
3	{1856-63, 8 years, 14 tons Farmyard Manure; average produce 42½ cwt.}	..	..	..	..	38	5½	25½	14½	12½	21½	3
4	{1864 and since, unmanured; average produce (10 years, 1864-73) 35½ cwt.}	..	..	..	..	40½	7½	24½	15½	13½	23½	4
5	{3½ cwt. Superphosphate of Lime; 3½ cwt. Superphosphate of Lime, and 400 lbs. Ammonia-salts}	..	..	..	..	45½	8½	38½	28½	26	35½	5
6	{400 lbs. Ammonia-salts}	..	..	..	..	56½	16½	37½	25½	26	31½	6
7	{1856-63, 13 years, 400 lbs. Ammonia-salts; average produce 30½ cwt.}	..	..	..	..	54½	17½	39½	37½	34½	35½	7
8	{1856-61, 6 years, 300 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphos., and 3½ cwt. Superphosphate}	..	..	..	..	46½	12½	30	22½	18½	31	8
9	{1856-61, 6 years, 300 lbs. Sulph. Potass, 200 lbs. Sulph. Soda, 100 lbs. Sulph. Magnesia, and 3½ cwt. Superphosphate; average produce 36 cwt.}	..	..	..	..	68½	29½	58½	50½	43½	52½	9
10	{1862 and since, 250 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia, and 3½ cwt. Superphosphate; average produce (12 years, 1862-73) 28½ cwt.}	..	..	..	..	57½	21½	46½	38½	33	47½	10
11	{300 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphosphate, and 400 lbs. Ammonia-salts}	..	..	..	..	75½	42½	56½	63½	46½	60½	11
12	{300 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphosphate, and 400 lbs. Silicate Soda}	..	..	..	..	78½	49½	65½	63½	56½	65½	12
13	Unmanured continuously	..	..	..	..	38½	11½	26½	20½	16½	24½	13
14	{300 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphosphate, and 400 lbs. Ammonia-salts, 2000 lbs. Cut Wheat-straw}	..	..	..	..	77½	48	63	62½	57	57½	14
15	{550 lbs. Nitrate of Soda, 300 lbs. Sulphate Potass, 100 lbs. Sulphate Soda, 100 lbs. Sulphate Magnesia, and 3½ cwt. Superphosphate}	..	..	..	..	76½	56½	61½	55½	51½	57½	15
16	{550 lbs. Nitrate of Soda}	..	..	..	..	53½	15½	38½	32½	33½	36½	16
17	{275 lbs. Nitrate of Soda}	..	..	..	..	74½	33½	57	40	41½	47½	17
18	{Mixture supplying the quantity of Potass, Soda, Lime, Magnesia, Phosphoric acid, Silica, and Nitrogen, contained in 1 ton of Hay (commencing 1865)}	..	..	..	..	54½	19½	38½	29½	28½	34½	18
19	{275 lbs. Nitrate of Soda, 200 lbs. Sulphate of Potass, and 3½ cwt. Superphosphate (commencing 1872)}	..	..	..	..	55½	14½	37½	33½	26½	33	19
20	{327 lbs. Nitrate of Potass, and 3½ cwt. Superphosphate (commencing 1872)}	..	..	..	..	..	..	..	..	40	38½	20

(1) "Ammonia-salts"—In all cases equal parts Sulphate and Murate of Ammonia of Commerce.
 (2) The "Superphosphate of Lime" is, in all cases, made from 200 lbs. Bone-ash, 150 lbs. Sulphuric Acid, gr. 1-7 (and water).
 (3) Plots 6, 8, and 10, had, besides the Manures specified, 2000 lbs. Sawdust per acre per annum for the first 7 years, 1856-1862, but without effect.
 (4) 200 lbs. 1856-63 inclusive.
 (5) 500 lbs. in 1862 and 1863.
 (6) Only 400 lbs. in 1863-60-61.
 (7) The application of Silicates did not commence until 1862.
 (8) 550 lbs. Nitrate of Soda is reckoned to contain the same amount of Nitrogen as 400 lbs. of "Ammonia-salts."
 (9) Average of 15 years only, as the manures specified were first applied in 1859 (previously, 1856-7 and 8, Sawdust only).
 (10) Average of 16 years only, as these experiments did not commence until 1858.
 (11) Average of 9 years only, as the experiment only commenced in 1866.