

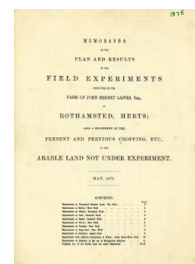
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Yields of the Field Experiments 1875

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Experiments on Wheat; Broadbalk Field

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BROADBALK FIELD.

EXPERIMENTS ON THE GROWTH OF WHEAT YEAR AFTER YEAR ON THE SAME LAND: WITHOUT MANURE, AND WITH DIFFERENT KINDS OF MANURE. Previous Cropping—1839, Turnips, with Farmyard Manure; 1840, Barley; 1841, Peas; 1842, Wheat; 1843, Oats; the last four Crops Unmanured. First Experimental Wheat Crop in 1844. Wheat every year since; and, with some exceptions, nearly the same description of Manure on the same Plots each year—especially during the last 23 years (1852 and since). Unless otherwise stated, the Manures are sown in the Autumn before the seed.

(Area under experiment, about 13 acres.)

PLOTS.	Manures, per acre, per annum.	PRODUCE PER ACRE.				Plots.
		Average per Annum, 20 Years, 1852-1871.		Thirty-first Season, 1874.		
		Quantity.	Weight per Bushel.	Quantity.	Weight per Bushel.	
0	Superphosphate of Lime (three times as much as on No. 5 and succeeding Plots)	Bushels, 17½	lbs., 58½	Bushels, 16½	lbs., 59	0
1	Sulphates of Potass, Soda, and Magnesia (twice as much as on No. 5 and succeeding Plots)	15½	58½	11½	59½	1
2	Farmyard Manure (14 tons every year)	35½	60	39½	60½	2
3	Unmanured continuously	14½	57½	13	58½	3
4	Unmanured for Crop of 1852, and since; previously Superphosphate (made with Muriatic Acid), and Sulphate Ammonia	15½	58½	13½	58½	4
5 (a and b)	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwts. Superphosph. and 200 lbs. Ammonia-salts Ⓞ	17	58½	13	59	5 (a and b)
6 (a and b)	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwts. Superphosph. and 200 lbs. Ammonia-salts Ⓞ	26½	59½	25½	59½	6 (a and b)
7 (a and b)	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwts. Superphosph. and 400 lbs. Ammonia-salts Ⓞ	35½	59½	39½	59½	7 (a and b)
8 (a and b)	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwts. Superphosph. and 600 lbs. Ammonia-salts Ⓞ	38½	59	40½	60	8 (a and b)
9 (a and b)	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwts. Superphosph. and 550 lbs. Nitrate Soda Ⓞ	32½	58½	38½	60½	9 (a and b)
10 (a and b)	350 lbs. Nitrate of Soda Ⓞ. (The Nitrate for both 9a and 9b always sown in the Spring.)	26	59½	24½	57½	10 (a and b)
11 (a and b)	400 lbs. Ammonia-salts alone, for 1845, and each year since; Mineral Manure in 1844	22½	57½	25½	56½	11 (a and b)
12 (a and b)	400 lbs. Ammonia-salts alone, for 1845, and each year since (excepting 1846 and 1850); Mineral Manure in 1844, '48, and '50	25½	58	27½	57	12 (a and b)
13 (a and b)	400 lbs. Ammonia-salts, 3½ cwts. Superphosphate	28	57½	32½	58	13 (a and b)
14 (a and b)	400 lbs. Ammonia-salts, 3½ cwts. Superphosphate, and 366½ lbs. Ⓞ Sulphate of Soda	33½	59½	39½	59½	14 (a and b)
15 (a and b)	400 lbs. Ammonia-salts, 3½ cwts. Superphosphate, and 280 lbs. Ⓞ Sulphate of Potass	33½	59½	37	60½	15 (a and b)
16 (a and b)	400 lbs. Ammonia-salts, 3½ cwts. Superphosphate, and 280 lbs. Ⓞ Sulphate of Magnesia	33½	59½	36½	59½	16 (a and b)
17 (a and b)	200 lbs. Ⓞ Sulph. Pot., 100 lbs. Ⓞ Sulph. Soda, 100 lbs. Sulph. Mag., 3½ cwts. Superphosph. Ⓞ; 400 lbs. Amm.-salts, sown in Spring Ⓞ	32½	59½	27½	61	17 (a and b)
18 (a and b)	200 lbs. Ⓞ Sulph. Pot., 100 lbs. Ⓞ Sulph. Soda, 100 lbs. Sulph. Mag., 3½ cwts. Superphosph. Ⓞ; 400 lbs. Amm.-salts, sown in Spring Ⓞ	34	59½	30½	61	18 (a and b)
19	{ 1852-64, 13 years, 200 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag., 3½ cwts. Superphosph., and 800 lbs. Ammonia-salts; average produce 39½ bush. Corn, 46½ cwts. Straw	32½	59	30½	61	19
20	{ 1865 and since, unmanured; average produce (9 years, 1865-73) 47½ bushels Corn, 15½ cwts. Straw	32½	59	30½	61	20
21	400 lbs. Ammonia-salts	31½ (15)	59½ (15)	33½ (14)	60½ (14)	21
22	200 lbs. Ⓞ Sulphate Potass, 100 lbs. Ⓞ Sulphate Soda, 100 lbs. Sulphate Magnesia, and 3½ cwts. Superphosphate	17½ (15)	58½ (15)	14 (15)	58½ (15)	22

(1) 300 lbs. per annum for Crop of 1858, and previously.
 (2) 200 lbs. per annum for Crop of 1858, and previously.
 (3) Superphosphate of Lime, "—in all cases, excepting for Plot 19, made from 200 lbs. Bone-ash, 150 lbs. Sulphuric acid sp. gr. 1.7 (and water).
 (4) The "Ammonia-salts," in all cases, equal parts Sulphate and Muriate of Ammonia of Commerce.
 (5) For 1858, and previously—1½ line as much.
 (6) For 1872 and previously, 400 lbs. Sulphate Ammonia, sown in the Autumn.
 (7) For 1872 and previously, 200 lbs. Sulphate Ammonia and 500 lbs. Rape-cake, sown in the Autumn.
 (8) The Manure of Plot 17, 1865, was sown in the year before the year of year, transposed.
 (9) Made with Muriatic instead of Sulphuric Acid.
 (10) 300 lbs. per annum for Crop of 1858, and previously.
 (11) 200 lbs. per annum for Crop of 1858, and previously.
 (12) Average of 20 years' Mineral Manures, alternated with Ammonia-salts.
 (13) Plots 17 had the Ammonia-salts for the Crop of 1874.
 (14) Plots 18 had the Mineral Manures for the Crop of 1874.
 (15) Average of 19 years only; as, in 1868, owing to a mistake in carting, the produce could not be ascertained.
 (16) The Plots marked "(a and b)" are divided into duplicate portions, "a" and "b," respectively, which are manured alike; excepting that, for the crops of 1864-5-6 and 7, the "a" portions of plots 5, 6, 7, 8, 9, 16, and 17 (or 18), received a mixture of soluble Silicates in addition to the other Manures, but, hitherto, without any material effect; and for the crops of 1868, and since, cut straw (that produced in the previous season) has been applied (instead of Silicates) to the "a" portions of plots 5, 6, 7, 8, 11, 12, 13, 14, and 17 (or 18); also for the crop of 1874, and since, the straw of the previous season has been cut up and applied to the "a" portion of plot 15.