

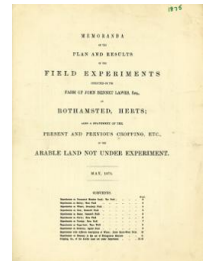
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Yields of the Field Experiments 1875

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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; and 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.				
		Dressed Corn.		Total Straw.		Dressed Corn.			Total Straw.	
		Quantity.	Weight per Bushel.	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	cwts. 13½	cwts. 1½	0		
1	Sulphates of Potass, Soda, and Magnesia (twice as much as on No. 5 and succeeding Plots)	15½	58½	11½	59½	13½	8½	1		
2	Farmyard Manure (14 tons every year)	35½	60	39½	60½	33½	39½	2		
3	Unmanured continuously	14½	57½	13	58½	13	8½	3		
4	Unmanured for Crop of 1852, and since; previously Superphosphate (made with Muriatic Acid), and Sulphate Ammonia	15½	58½	12½	58½	13½	8½	4		
5 (a and b)	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwt. Superphosph., and 200 lbs. Ammonia-salts	17	58½	15½	59	15½	7½	5 (a and b)		
6 (a and b)	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwt. Superphosph., and 200 lbs. Ammonia-salts	26½	59½	25½	59½	24½	19½	6 (a and b)		
7 (a and b)	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwt. Superphosph., and 400 lbs. Ammonia-salts	35½	59½	33½	59½	35½	41½	7 (a and b)		
8 (a and b)	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwt. Superphosph., and 600 lbs. Ammonia-salts	38½	59½	41½	60	41½	54½	8 (a and b)		
9 {a b	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, 3½ cwt. Superphosph., and 550 lbs. Nitrate Soda	36½	58½	38½	60½	41½	44½	9 {a b		
10 {a b	400 lbs. Ammonia-salts alone, for 1845, and each year since; Mineral Manure in 1844	22½	57½	21½	56½	21½	17½	10 {a b		
11 (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	24½	57	24½	21½	11 (a and b)		
12 (a and b)	400 lbs. Ammonia-salts, 3½ cwt. Superphosphate	28	57½	26½	58	26½	27½	12 (a and b)		
13 (a and b)	400 lbs. Ammonia-salts, 3½ cwt. Superphosphate, and 366½ lbs. ♂ Sulphate of Soda	33½	59½	33½	59½	32½	34½	13 (a and b)		
14 (a and b)	400 lbs. Ammonia-salts, 3½ cwt. Superphosphate, and 280 lbs. ♂ Sulphate of Magnesia	33½	59½	37	60½	33½	35½	14 (a and b)		
15 {a b	200 lbs. ♂ Sulph. Pot., 100 lbs. ♂ Sulph. Soda, 100 lbs. Sulph. Mag., 3½ cwt. Superphosph., 400 lbs. Amm.-salts, sown in Spring	32½	59½	32½	59½	32½	33½	15 {a b		
16 (a and b)	1852-64, 13 years, 200 lbs. Sulph. Potass, 100 lbs. Sulph. Soda, 100 lbs. Sulph. Mag., 3½ cwt. Superphosph., and 800 lbs. Ammonia-salts; average produce 39½ bush. Corn, 46½ cwt. Straw	34	59½	34	61	35½	26½	16 (a and b)		
17 (a and b)	1865 and since, unmanured; average produce (9 years, 1855-73) 17½ bushels Corn, 15½ cwt. Straw	32½	59	30½	61	36½	10½	17 (a and b)		
18 (a and b)	400 lbs. Ammonia-salts	31½ (12)	59½ (12)	33½ (14)	60½ (14)	31½ (12)	9½ (14)	18 (a and b)		
19	200 lbs. ♂ Sulphate Potass, 100 lbs. ♂ Sulphate Soda, 100 lbs. Sulphate Magnesia, and 3½ cwt. Superphosphate	17½ (13)	58½ (13)	16 (15)	59½ (15)	16 (15)	9½ (15)	19		
20	Unmanured continuously	30½	58½	29½	59½	29½	28	20		
21	200 lbs. ♂ Sulph. Potass, 100 lbs. ♂ Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphosph., and 100 lbs. Muriate Ammonia	15½ (16)	58 (16)	13½	59½	14½ (16)	11½	21		
22	200 lbs. ♂ Sulph. Potass, 100 lbs. ♂ Sulph. Soda, 100 lbs. Sulph. Magnesia, 3½ cwt. Superphosph., and 100 lbs. Sulphate Ammonia	21½	58½	19½	59½	19½	14½	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 1852 and previously, 400 lbs. Sulphate Ammonia, sown in the Autumn.
 (7) For 1872 and previously, 300 lbs. Sulphate Ammonia and 500 lbs. Rape-cake, sown in the Autumn.
 (8) The Manure of Plot 17, 18, and 19, year by year, transposed.
 (9) Made with Muriate instead of Sulphuric Acid.

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, 10, 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) on 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.