

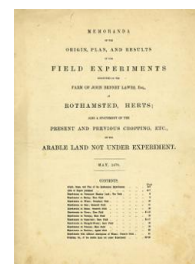
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# Yields of the Field Experiments 1878

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## Experiments on Wheat; Broadbalk Field

### Rothamsted Research

Rothamsted Research (1879) *Experiments on Wheat; Broadbalk Field* ; Yields Of The Field Experiments 1878, pp 10 - 10 - DOI: <https://doi.org/10.23637/ERADOC-1-242>

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 27 years (1852 and since). From the commencement of the experiments in 1843-4 up to 1876-7 inclusive, the mineral manures, the ammonia-salts, and rape-cake, &c., if any, were sown in the autumn, before the seed; excepting in 1846, when, owing to the wet autumn and winter, all the manures were spring-sown; and for the crops of 1873, 4, 5, 6, and 7, the ammonia-salts applied to Plot 15 were top-dressed in the spring. Nitrate of soda has, however, always been sown in the spring. But, in consequence of the ascertained great loss of the nitrogen of the ammonia-salts in the autumn, and the ammonia-salts are mixed in, when the mineral manures (and Farmyard-manure) in the autumn, and the ammonia-salts, as well as the nitrate, in the spring; excepting on Plot 15, where, for comparison, the ammonia-salts are to be sown in the autumn; and on Plot 19, where the ammonia-salts are mixed in, when the superphosphate is made. This plan is adopted for the first time for the present crop, 1877-8.

(Area under experiment, about 13 acres.)

Table with columns: Plots (0-22), Manures per acre, per annum, Average per Annum (Weight per Bushel), Total Straw (24 Years, 12 Years, 24 Years), Dressed Corn (Quantity, Weight per Bushel), and Plots. The table contains detailed data for each plot, including crop yields and manure treatments.

(1) 800 lbs. per annum for Crop of 1858, and previously. (2) 200 lbs. per annum for Crop of 1858, and previously. (3) A Superphosphate of Lime—in all cases, excepting for Plot 19, made from 200 lbs. Bone-ash, 150 lbs. Sulphuric acid, &c. (4) 300 lbs. per annum for Crop of 1858, and previously. (5) The ammonia-salts, in all cases, equal parts Sulphate and Muriate of Ammonia of Commerce. (6) 34, 47 1/2 lbs. Nitrate of Soda in 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900. Nitrate is reckoned to contain the same amount of Nitrogen as 400 lbs. of Ammonia-salts, each year since 1846, and previously—1 1/2 times as much. (7) For 1852, and previously, made with Muriate instead of Sulphuric Acid. (8) For 1872 and previously, 400 lbs. Sulphate Ammonia, sown in the Autumn; for 1873, 4, 5, 6, and 7, 400 lbs. Ammonia-salts, sown in the Spring; for 1878, 400 lbs. Ammonia-salts, sown in the Autumn. (9) For 1872 and previously, 300 lbs. Sulphate Ammonia and 500 lbs. Rape-cake, sown in the Autumn; for 1873, 4, 5, 6, and 7, 400 lbs. Ammonia-salts, sown in the Spring; for 1878, 400 lbs. Ammonia-salts, sown in the Autumn. (10) For 1852, and previously, 300 lbs. Sulphate Ammonia and 500 lbs. Rape-cake, sown in the Autumn; for 1873, 4, 5, 6, and 7, 400 lbs. Ammonia-salts, sown in the Spring; for 1878, 400 lbs. Ammonia-salts, sown in the Autumn.