

The Park Grass Experiment

Fertilizer treatments, 1856 to the present

Plot Plots 1-13 started in 1856

- 1 N₁ since 1856; FYM also 1856-1863
- 2/1^a K since 1996; FYM 1856-1863; nil (no fertilizer or manure) 1864-1995
- 2/2^a Nil (no fertilizer or manure) since 1864; FYM 1856-1863
- 3 Nil (no fertilizer or manure) since 1856
- 4/1 P since 1856; with sawdust 1856-1858
- 4/2 N₂P since 1856; with sawdust 1856-1858
- 5/1 Not now included in main experiment; N₂ 1856-1897; nil 1898-1964; microplot experiments 1965-78
- 5/2 Not now included in main experiment; N₂ 1856-1897; PK 1898-1964; microplot experiments 1965-78
- 6 Plots 6a and 6b N₁PKNaMg since 1972;
N₂ 1856-1868; with sawdust 1856-1862; PKNaMg 1869-1964; microplot experiments 1965-1971
Plots '6c and 6d' not now included in main experiment;
N₂ 1856-1868; with sawdust 1856-1862; PKNaMg 1869-1964; microplot experiments 1965-1985
- 7 PKNaMg 1856 onwards
- 8 PNaMg 1856 onwards; with sawdust 1856-1862; with K 1856-1861; sodium sulphate at 2.5 times the normal rate 1864-1904, sodium sulphate at 5 times the normal rate 1862-1863
- 9/1^b N₂PKNaMg 1856-1989; since 1990 PKNaMg but no N₂
- 9/2^b N₂PKNaMg since 1856
- 10 N₂PNaMg since 1856; with sawdust 1856-1862; with K 1856-1861; sodium sulphate at 2.5 times the normal rate 1864-1904, sodium sulphate at 5 times the normal rate 1862-1863
- 11/1 N₃PKNaMg since 1882; N₄PKNaMg 1856-1881, except N₂PKNaMg 1859-61
- 11/2 N₃PKNaMgSi since 1882; N₄PKNaMg 1856-1858; N₂PKNaMg 1859-61; N₄PKNaMgSi 1862-1881
- 12 Nil (no fertilizer or manure) since 1856
- 13/1^c (FYM/Fishmeal) since 1996; N₂PKNaMg 1856-1904; with straw 1856-1897; FYM one year in 4 from 1905, fishmeal one year in 4 from 1907; FYM and fishmeal last applied 1993 and 1995 respectively
- 13/2^c FYM/PM since 2003; N₂PKNaMg 1856-1904; with straw 1856-1897; FYM one year in 4 from 1905, fishmeal one year in 4 from 1907; Poultry Manure (PM) replaced fishmeal in 2003.

Plots 14-17 started in 1858

- 14/1^d N₂PKNaMg 1858-1989; no N₂ since 1990
- 14/2^d N₂PKNaMg since 1858
- 15 PKNaMg since 1876; N₂ 1858-1875
- 16 N₁PKNaMg since 1858; no P 1866, 1867
- 17 N₁ since 1858

Plot 18 started in 1865

- 18 N₂KNaMg since 1905; 1865-1904 the amount of NPKNaMg and Si in 1 tonne of hay (approx 39 kgN)

Plots 19 and 20 started in 1872

- 19 FYM every 4th year from 1905; 1872-1904 N₁PK (N as potassium nitrate).
- 20 FYM every 4th year from 1905, in other years 30 kg N as sodium nitrate, 15 kg P, 45 kg K; 1872-1904 N₁PK (N as potassium nitrate)

Notes: In 1903 plots 1-17 were reduced in length by 1.5m at the northern end

In 1906 plot 1 was reduced in length at the southern end due to shading

^a In 1996 plot 2 was divided into two: 2/1 tests potassium, 2/1 continues without fertilizer or manure

^b In 1990 plot 9 was divided into two: 9/1 no longer receives N₂, 9/2 is unchanged

^c In 1995 plot 13 was divided into two: 13/1 no longer receives manure, 13/2 is unchanged

^d In 1990 plot 14 was divided into two: 14/1 no longer receives N₂, 14/2 is unchanged

Sources of information:

Warren, R.G. & Johnston, A.E. (1964) 'The Park Grass Experiment', Rothamsted Annual Report for 1963, pp 240-262.

Rothamsted Experimental Station (1970), 'Details of the Classical and Long-Term experiments up to 1967' Lawes Agricultural Trust, Harpenden, UK

Rothamsted Research (2006), 'Guide to the Classical and other Long-Term Experiments, Datasets and Sample Archive', Lawes Agricultural Trust, Harpenden, UK

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