

The Park Grass Experiment

Lime/chalk treatments, 1856 to the present

No lime applied 1856-1880

Plots 1 - 4/2, 7 - 11/2, 13 and 16

1881 lime applied to strip 10m wide on north side of the plot (except plot 16)

1883 plots halved and lime applied to western half, in 1887 lime applied to eastern half of plot.

Plots 11/1 and 11/2 received twice as much lime as the other plots.

1903 plots halved, lime applied regularly to the southern half (L), northern half remained unlimed (U).

1924 lime applied every 4 years to the southern half (L), northern half remained unlimed (U)

1965 plots divided into four sub-plots, a and b on the south side, previously limed, c and d on the north side, previously unlimed. No chalk applied to sub-plot d, differential amounts applied to sub-plots a, b and c, to maintain soil pH at 7, 6 and 5 respectively.

Plots 5/1 and 5/2

1881 lime applied to strip 10m wide on north side of the plot.

1883 plots halved and lime applied to western half, in 1887 lime applied to eastern half of plot. plus a further application to the whole plot. No lime applied 1903 -1964.

From 1965 used for microplot experiments, and have remained outside the main experiment.

Plot 6

1881 lime applied to strip 10m wide on north side of plot 5/2.

1883 plots halved and lime applied to western half, in 1887 lime applied to eastern half of plot.

No lime applied 1903-1964. From 1965 - 1971 used for microplot experiments.

1972 onwards plots 6a and 6b received lime within the liming scheme.

Plot 12

1881 lime applied to strip 10m wide on north side of the plot.

1883 plots halved and lime applied to western half, in 1887 lime applied to eastern half of plot.

No lime applied 1903-1975; not included in the a, b, c, d scheme until 1976.

Plots 14, 15 and 17

1883 plots halved and lime applied to western half, in 1887 lime applied to eastern half of plot.

1920 plots halved and lime applied every 4 years to the southern half (L), northern half remained unlimed (U).

1965 plots 14 and 17 divided into four sub-plots, a and b on the south side, previously limed, c and d on the north side, previously unlimed. No chalk applied to sub-plot d, differential amounts applied to sub-plots a, b and c, to maintain soil pH at 7, 6 and 5 respectively.

Plot 15 remained in limed and unlimed halves from 1920 - 1975, and was not fully included in the a, b, c, d scheme until 1976.

Plots 18 - 20

From 1920 plots 18, 19 and 20 were divided into three sub-plots to test different rates of lime:

Plot 18/1: Unlimed

Plot 18/2: 7.7 t/ha ground lime once every 4 years

Plot 18/3: 4.4 t/ha ground lime once every 4 years

Plot 19/1: Unlimed

Plot 19/2: 3.5 t/ha ground lime once every 4 years 1920-1964

Plot 19/3: 0.6 t/ha ground lime once every 4 years 1920-1964

Plot 20/1: Unlimed

Plot 20/2: 3.1 t/ha ground lime once every 4 years 1920-1964

Plot 20/3: 0.6 t/ha ground lime once every 4 years 1920-1964

From 1965:

Plot 18/1 was divided into 18c and 18d (previously unlimed) and included in a, b, c, d liming scheme.

Plot 18/3 was divided into 18a and 18b (previously limed) and included in a, b, c, d liming scheme.

Plots 18/2, 19/1, 19/2, 19/3, 20/1, 20/2, 20/3 are not included in the 1965 a, b, c, d liming scheme.

Sources of information:

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

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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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