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## Park Grass experiment plan and treatments since 1965, updated 2018

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**Description:** Standardised experiment plan for the Park Grass experiment since 1965, updated 2018, with details of lime, fertilizer and manure treatments (not to scale).

- **Page 1:** Cover page
- **Page 2:** Experiment plan with plot names, lime, fertilizer and manure treatments since 1965, updated 2018 to show recent changes to some fertilizer treatments.

**Site:** R/PG/5. Park Grass, Rothamsted Experimental Farm, Rothamsted Research, West Common, Harpenden, Hertfordshire, AL5 2JQ, UK. Geolocation: 51.803812, -0.372097

### Related Resources:

- Macdonald A. J. et al (2018) *Guide to the Classical and Other Long-term experiments, Datasets and Sample Archive. Rothamsted Research.* [10.23637/ROTHAMSTED-LONG-TERM-EXPERIMENTS-GUIDE-2018](https://doi.org/10.23637/ROTHAMSTED-LONG-TERM-EXPERIMENTS-GUIDE-2018)
- Rothamsted Research (2010) *Park Grass experiment plan and treatments, 1856-1902. Electronic Rothamsted Archive, Rothamsted Research.* [10.23637/rpg5-plan1856-1902-01](https://doi.org/10.23637/rpg5-plan1856-1902-01)
- Rothamsted Research (2010) *Park Grass experiment plan and treatments, 1903-1964. Electronic Rothamsted Archive, Rothamsted Research.* [10.23637/rpg5-plan1903-1964-01](https://doi.org/10.23637/rpg5-plan1903-1964-01)

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# The Park Grass Experiment

## Plot layout and treatments since 1965, updated 2018

### Treatments

(per hectare per year unless indicated)

### Nitrogen (applied in spring)

N1, N2, N3: ammonium sulphate supplying 48, 96, 144 kg N and 55, 110, 165 kg S

N\*1, N\*2, N\*3: sodium nitrate supplying 48, 96, 144 kg N and 78, 157, 236 kg Na

(N2), (N\*2): last applied 1989 (**plots 9/1 and 14/1**)

### Minerals (applied in winter)

P: 17kg P as triple superphosphate since 2017, previously 35 kgP (except plot 20)

K: potassium sulphate supplying 225 kg K and 93 kg S

Na: sodium sulphate supplying 15 kg Na and 10 kg S

Mg: magnesium sulphate (Epsom salts) supplying 10 kg Mg and 13 kg S

Si: water soluble sodium silicate supplying 135 kg Si and 63 kg Na

**Plot 20:** rates of fertilizer in years when FYM is not applied; 30 kg N\*, 15 kg P, 45 kg K

**Plot 7:** in 2013 it was divided into 7/1 and 7/2; P applications on 7/1 stopped (P).

**Plot 15:** Since 2013, has also received N\*3 (previously PKNaMg but no N)

### Organics (applied every 4th year)

FYM: 35 t farmyard manure supplying c. 240 kg N, 45 kg P, 350 kg K,

25 kg Na, 25 kg Mg, 40 kg S, 135 kg Ca

PM: Pelleted poultry manure (replaced fishmeal in 2003) supplying c. 65 kg N

On plot 13/2 FYM and PM (previously fishmeal) are applied in a 4-year cycle *ie*:

FYM in 2017, 2013, 2009, 2005 *etc*

PM in 2015, 2011, 2007, 2003

fishmeal in 1999, 1995, 1991 *etc*

**Plot 13/1 (FYM/Fishmeal):** FYM and fishmeal last applied in 1993 and 1995 respectively.

### Lime (applied every third year)

Ground chalk applied as necessary to maintain soil (0-23cm) at pH 7, 6 and 5 on sub-plots 'a', 'b' and 'c' Sub-plot 'd' does not receive any chalk

**Plots 1-13** started in 1856, plots 14-17 in 1858, plot 18 in 1865 and plots 19 and 20 in 1872.

**Sub-plots** range in size from 75 - 634 m<sup>2</sup>

