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ROTHAMSTED  
RESEARCH

# Collection of Plans for the Rothamsted Long-term Liming Experiment

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Thumbnail image of a document page showing a table of contents or experimental plan. The page is titled 'Rothamsted Long-term Liming Experiment' and contains a table with columns for 'Year', 'Liming Rate', 'Crop', and 'Yield'. The table lists data for various years from 1962 to 1996, showing different liming rates and crop yields.

## Rothamsted Long-term Liming Experiment 1981

### Rothamsted Research

Rothamsted Research (1962-1996) *Rothamsted Long-term Liming Experiment 1981* ; Collection Of Plans For The Rothamsted Long-Term Liming Experiment, pp 15 - 15

81/R/CS/10

ROTHAMSTED LONG TERM LIMING

S. ONY'S

SPRINKERS I 20th YEAR 1981

Sponsors: S. McGrath, D.P. Stribley

| PH  | 01                       | 02                       | 03                       | 04                       | 05                       | 06                       | 07                                | 08                                |
|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------|-----------------------------------|
| 4.6 | Mg<br>(P)P1<br>(-)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)K          | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 4.7 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 5.5 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 5.2 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 6.2 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 7.4 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 5.6 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 7.6 | Mg<br>(-)P1<br>(K)K      | Mg<br>(-)P1<br>(K)K      | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 5.9 | Mg<br>4.6                | Mg<br>4.6                | Mg<br>5.5                | Mg<br>5.2                | Mg<br>6.2                | Mg<br>7.4                | Mg<br>7.4                         | Mg<br>6.7                         |
| 17  | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(P)P1<br>(-)K | Mg<br>L<br>(-)P1<br>(P)P1<br>(-)K |
| 18  | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(P)P1<br>(-)K | Mg<br>L<br>(-)P1<br>(P)P1<br>(-)K |
| 19  | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(P)P1<br>(-)K | Mg<br>L<br>(-)P1<br>(P)P1<br>(-)K |
| 20  | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 21  | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>M<br>(-)P1<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 22  | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 23  | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 24  | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 25  | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 26  | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>H<br>(-)K          | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 27  | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 28  | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 29  | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 30  | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 31  | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |
| 32  | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>H<br>(-)P1<br>(K)K | Mg<br>L<br>(-)P1<br>(K)K | Mg<br>O<br>(P)P2<br>(K)K | Mg<br>M<br>(-)K          | Mg<br>L<br>(-)K                   | Mg<br>H<br>(P)P1<br>(-)K          |

**P & K TREATMENTS**

|           | UNTIL 1978 | FROM 1981 | LIME TREATMENTS (Total 1982-1978 t ha <sup>-1</sup> ) |
|-----------|------------|-----------|---|
| (-) (-)K  | P          | P         | 0   |
| (P)P(-)K  | K          | K         | 7   |
| (-)P1(K)K | P          | P1        | 15  |
| (P)P1(K)K | K          | P1        | 15  |
| (P)P2(K)K | P          | P2        | 30  |

P & K until 1978 cumulative rates depended on crop  
From 1981  
P1, P2 25, 75 kg P ha<sup>-1</sup>  
K 120 kg K ha<sup>-1</sup>

**BASAL MINERALING**  
N 'Nitrochalk' at 80 kg N ha<sup>-1</sup>  
Mg Epsom salts at 120 kg Mg ha<sup>-1</sup>

**VARIETY** Peniarth sown at 168 t/ha (189 t/ha) on 13 April

**DESIGN** 2 blocks of 16 plots

**PLOT AREA** 21' x 66' = 0.029 acre (0.0117 ha)  
Harvested 914" x 66" = 0.013 acre (0.0052 ha)

**PLOT ARRANGEMENT**

3 blocks of 16 plots each  
2 tillage rows  
12 rows  
Sampling area 7' wide  
Sampling area W side of each plot

No headkiller or pesticides without Sponsors consent  
All operations by farm.