

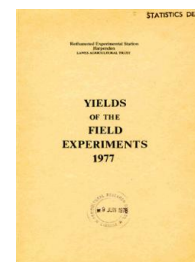
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## Yields of the Field Experiments 1977

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### 77/R/LP/2 Seed Rates, Row Spacing and Pathogen Control - Lupins

#### Rothamsted Research

Rothamsted Research (1978) *77/R/LP/2 Seed Rates, Row Spacing and Pathogen Control - Lupins ; Yields Of The Field Experiments 1977*, pp 389 - 390 - DOI:

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77/R/LP/2

LUPINS

SEED RATES, ROW SPACING AND PATHOGEN CONTROL

Object: To study the effects of seed rates, row spacing and pathogen control on yields and incidence of pests and diseases - Long Hoos VI/VII 1.

Sponsors: J.C. Wilson, G.A. Salt, A.J. Cockbain.

Design: 2 randomised blocks of 3 x 3 x 2.

Whole plot dimensions: 3.05 x 7.62.

Treatments: All combinations of:-

1. SEEDRATE            Seed Rates (kg):

120  
240  
360

2. ROW SPAC            Spacing between rows:

13 CM            13 cm ( 5 inches)  
25 CM            25 cm (10 inches)  
38 CM            38 cm (15 inches)

3. PATHCONT            Pathogen control:

NONE            None  
FULL            Aldicarb at 10 kg + benomyl at 32 kg to seedbed + foliar  
                  spray of fenitrothion at 0.7 kg in 340 l applied on  
                  1 June.

Basal applications: Manures: (0:14:28) at 880 kg. Weedkiller: Trifluralin at 0.9 kg in 340 l.

Seed: Kievsky.

Cultivations, etc.:- PK applied: 9 Nov, 1976. Ploughed: 15 Dec, 18 Jan, 1977. Weedkiller applied, power harrowed: 6 Apr. Aldicarb applied to PATHCONT FULL plots, all plots power harrowed: 7 Apr. Benlate applied to PATHCONT FULL plots, all plots power harrowed: 15 Apr. Seed sown: 21 Apr. Combine harvested: 8 Nov. Previous crops: Potatoes 1975, wheat 1976.

NOTE: Incidence of pests and diseases was measured throughout the season.

77/R/LP/2

GRAIN TONNES/HECTARE

\*\*\*\*\* TABLES OF MEANS \*\*\*\*\*

| ROW SPAC | 13 CM | 25 CM | 38 CM | MEAN |
|----------|-------|-------|-------|------|
| SEEDRATE |       |       |       |      |
| 120      | 1.98  | 2.07  | 1.87  | 1.97 |
| 240      | 2.13  | 2.23  | 2.12  | 2.16 |
| 360      | 2.12  | 1.99  | 1.91  | 2.01 |
| MEAN     | 2.08  | 2.10  | 1.97  | 2.05 |

| PATHCONT | NONE | FULL | MEAN |
|----------|------|------|------|
| SEEDRATE |      |      |      |
| 120      | 1.91 | 2.04 | 1.97 |
| 240      | 2.13 | 2.19 | 2.16 |
| 360      | 1.97 | 2.05 | 2.01 |
| MEAN     | 2.00 | 2.09 | 2.05 |

| PATHCONT | NONE | FULL | MEAN |
|----------|------|------|------|
| ROW SPAC |      |      |      |
| 13 CM    | 2.06 | 2.09 | 2.08 |
| 25 CM    | 2.05 | 2.14 | 2.10 |
| 38 CM    | 1.90 | 2.03 | 1.97 |
| MEAN     | 2.00 | 2.09 | 2.05 |

| ROW SPAC | 13 CM | 25 CM | 38 CM |      |      |      |
|----------|-------|-------|-------|------|------|------|
| PATHCONT | NONE  | FULL  | NONE  | FULL | NONE | FULL |
| SEEDRATE |       |       |       |      |      |      |
| 120      | 1.88  | 2.08  | 2.02  | 2.11 | 1.82 | 1.92 |
| 240      | 2.17  | 2.10  | 2.19  | 2.26 | 2.04 | 2.20 |
| 360      | 2.13  | 2.10  | 1.94  | 2.04 | 1.84 | 1.99 |

\*\*\*\*\* STANDARD ERRORS OF DIFFERENCES OF MEANS \*\*\*\*\*

| TABLE | SEEDRATE | ROW SPAC | PATHCONT | SEEDRATE<br>ROW SPAC |
|-------|----------|----------|----------|----------------------|
| SED   | 0.062    | 0.062    | 0.050    | 0.107                |

| TABLE | SEEDRATE<br>PATHCONT | ROW SPAC<br>PATHCONT | SEEDRATE<br>ROW SPAC<br>PATHCONT |
|-------|----------------------|----------------------|----------------------------------|
| SED   | 0.087                | 0.087                | 0.151                            |

\*\*\*\*\* STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION \*\*\*\*\*

| STRATUM             | DF      | SE    | CV% |
|---------------------|---------|-------|-----|
| BLOCK.WP            | 17      | 0.151 | 7.4 |
| GRAIN MEAN DM%      | 64.1    |       |     |
| PLOT AREA HARVESTED | 0.00002 |       |     |