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## Yields of the Field Experiments 1998

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### 98/R/BES/2 Weeds and Water in Spring Beans - S. Beans

#### Rothamsted Research

Rothamsted Research (1999) *98/R/BES/2 Weeds and Water in Spring Beans - S. Beans* ; Yields Of The Field Experiments 1998, pp 160 - 161 - DOI: <https://doi.org/10.23637/ERADOC-1-52>

98/R/BES/2

**SPRING BEANS**

**WEEDS AND WATER IN SPRING BEANS**

**Object:** To investigate the effects of soil moisture on the competitive effects of weeds in beans - Fosters.

**Sponsor:** P.J.W. Lutman.

**Design:** 3 replicates of 2 plots split into 5 sub-plots.

**Whole plot dimensions:** 3.0 x 10.0.

**Treatments:**

Whole plots

1. **IRRIGATN**           Irrigation:

|   |           |
|---|-----------|
| O | None      |
| I | Irrigated |

Sub-plots

2. **WEEDS**

|    |                       |
|----|-----------------------|
| -  | None                  |
| M1 | Mustard, low density  |
| M2 | Mustard, high density |
| O1 | Oats, low density     |
| O2 | Oats, high density    |

**Experimental diary:**

27-Aug-97 : B : Ploughed and furrow pressed.  
28-Jan-98 : B : Barclay Gallup at 1.5 l with Frigate at 0.5 l in 200 l.  
13-Feb-98 : B : Parable at 1.5 l with Scythe LC at 0.5 l and Luxon  
Non-Ionic Wetter at 0.1 l in 200 l.  
23-Mar-98 : B : Heavy spring-tine cultivated, rotary harrowed.  
24-Mar-98 : B : Rotary harrowed, Alfred, undressed, drilled at 40 seeds  
per m<sup>2</sup>.  
24-Mar-98 : T : **WEEDS** M2: Emergo broadcast at 160 seeds per m<sup>2</sup>.  
              : T : **WEEDS** M1: Emergo broadcast at 40 seeds per m<sup>2</sup>.  
              : T : **WEEDS** O2: Dula broadcast at 160 seeds per m<sup>2</sup>.  
              : T : **WEEDS** O1: Dula broadcast at 40 seeds per m<sup>2</sup>.  
08-Apr-98 : B : Draza at 5.5 kg.  
14-Apr-98 : B : Doff Metaldehyde Slug Killer Mini Pellets at 15.0 kg.  
22-Apr-98 : B : Cyperkill 10 at 250 ml in 200 l.  
08-May-98 : B : Folio 575 SC at 2.0 l in 200 l.  
              : B : Fastac at 200 ml in 260 l.  
14-May-98 : B : Cyperkill 10 at 250 ml in 200 l.  
28-May-98 : B : Fastac at 200 ml in 200 l.  
12-Jun-98 : B : Folio 575 SC at 2.0 l in 200 l.

98/R/BES/2

**Experimental diary:**

19-Jun-98 : B : Aphox at 280 g in 200 l.  
14-Sep-98 : B : Combine harvested.

Previous crops: W. rape 1996, w. wheat 1997

- NOTES:** (1) Plant populations were assessed in April. Plant samples of crop and weeds were taken in April to measure leaf area and dry weight. In June and July samples were taken to measure height and dry weight. At harvest weight of crop and weed seeds were recorded.
- (2) Only irrigated plots were harvested.

**GRAIN TONNES/HECTARE**

\*\*\*\*\* Tables of means \*\*\*\*\*

| <b>WEEDS</b> |      |
|--------------|------|
| -            | 6.76 |
| M1           | 5.26 |
| M2           | 5.07 |
| O1           | 5.21 |
| O2           | 4.50 |
| Mean         | 5.36 |

\*\*\* Standard errors of differences of means \*\*\*

| <b>WEEDS</b> |       |
|--------------|-------|
|              | 0.587 |

\*\*\*\*\* Stratum standard errors and coefficients of variation \*\*\*\*\*

| Stratum             | d.f.    | s.e.  | cv%  |
|---------------------|---------|-------|------|
| BLOCK.WP            | 8       | 0.719 | 13.4 |
| GRAIN MEAN DM% *    |         |       |      |
| PLOT AREA HARVESTED | 0.00020 |       |      |