

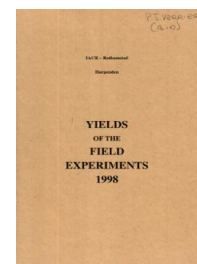
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## Yields of the Field Experiments 1998

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### 98/R/RAW/1 Growth of Weeds and Rape - W. Oilseed Rape

#### Rothamsted Research

Rothamsted Research (1999) *98/R/RAW/1 Growth of Weeds and Rape - W. Oilseed Rape* ; Yields Of The Field Experiments 1998, pp 139 - 141 - DOI: <https://doi.org/10.23637/ERADOC-1-52>

98/R/RAW/1

WINTER OILSEED RAPE

GROWTH OF WEEDS AND RAPE

**Object:** To investigate factors influencing the vigour of winter rape grown in competition with chickweed and barley - Summerdells II.

**Sponsors:** P.J.W. Lutman.

**Design:** 48 plots single replicate.

**Whole plot dimensions:** 3.0 x 16.0.

**Treatments:** All singly and certain combinations of:

1. **BARL DEN** Barley (cultivar Gleam), target plants per m<sup>2</sup>:

|     |     |
|-----|-----|
| B0  | 0   |
| B1  | 20  |
| B2  | 40  |
| B3  | 60  |
| B4  | 80  |
| B5  | 100 |
| B6  | 120 |
| B7  | 150 |
| B8  | 180 |
| B9  | 220 |
| B10 | 260 |
| B11 | 300 |
| B12 | 400 |

2. **CHCK DEN** Chickweed (*stellaria media*), target plants per m<sup>2</sup>:

|     |     |
|-----|-----|
| C0  | 0   |
| C1  | 30  |
| C2  | 60  |
| C3  | 90  |
| C4  | 120 |
| C5  | 150 |
| C6  | 180 |
| C7  | 220 |
| C8  | 280 |
| C9  | 340 |
| C10 | 400 |
| C11 | 600 |
| C12 | 800 |

**NOTE:** B0.C0 combination was quadruplicated.

**Experimental diary:**

11-Aug-97 : B : Discd.  
15-Aug-97 : B : Ploughed and furrow pressed.  
01-Sep-97 : B : Rotary harrowed.

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**Experimental diary:**

01-Sep-97 : T : Barley and chickweed seed broadcast as treatment.  
          : B : Apex, dressed Vitavax RS, drilled at 120 seeds per m<sup>2</sup>.  
24-Sep-97 : B : Cyperkill 10 at 250 ml in 200 l.  
29-Oct-97 : T : **CHCK DEN** C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11,  
                  C12 **BARL DEN** B0 **CHCK DEN** C0: Laser at 1.0 l with Atlas  
                  Adjuvant Oil at 1.8 l in 220 l.  
          : T : : **BARL DEN** B0 **CHCK DEN** C0: Clayton Metazachlor at 1.5 l  
                  in 220 l.  
07-Nov-97 : B : Punch C at 0.4 l in 200 l. Cyperkill 10 at 250 ml in  
                  200 l.  
04-Feb-98 : B : 34.5% N at 290 kg.  
17-Feb-98 : B : Folicur at 0.5 l in 200 l.  
02-Mar-98 : B : 34.5% N at 350 kg.  
27-Apr-98 : B : Ronilan FL at 1.0 l in 200 l.  
08-May-98 : B : Fastac at 200 ml in 260 l.  
15-Jul-98 : B : Reglone at 3.0 l with Headland Enhance LF at 400 ml in  
                  400 l.  
24-Jul-98 : B : Combine harvested.

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

- NOTES:**
- (1) Plant populations were assessed in autumn. Plant samples were taken in November, March, May and July to measure relative amounts of biomass. Number of rape flower heads were estimated in April and before harvest an assessment of lodging was made.
  - (2) The grain yields from all plots contained weed seeds. A sample weighing over 2 kg was taken from each plot. This sample was weighed before and after the removal of weed seeds. These figures were used to estimate the cleaned grain yield.
  - (3) Two plots were removed from the analysis; B8.C3 because of animal damage; B8.C10 because of severe early lodging.

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**GRAIN TONNES/HECTARE**

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

| CHCK DEN        | C0   | C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>BARL DEN</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |
| B0              | 4.91 | 4.49 | 4.40 | 4.29 | 4.37 | 5.04 | 4.78 | 4.54 | 4.23 | 4.72 | 4.61 | 4.58 | 4.22 |
| B1              | 4.47 |      |      | 4.53 |      | 4.03 |      | 4.58 |      |      | 4.49 |      |      |
| B2              | 4.79 |      |      | 4.47 |      | 4.41 |      | 3.91 |      |      | 3.48 |      |      |
| B3              | 5.11 |      |      |      |      |      |      |      |      |      |      |      |      |
| B4              | 4.92 |      |      | 5.16 |      | 4.52 |      | 4.62 |      |      | 3.93 |      |      |
| B5              | 4.76 |      |      |      |      |      |      |      |      |      |      |      |      |
| B6              | 4.41 |      |      | 3.27 |      | 3.87 |      | 3.87 |      |      | 3.76 |      |      |
| B7              | 4.51 |      |      |      |      |      |      |      |      |      |      |      |      |
| B8              | 5.25 |      |      |      |      | 3.60 |      | 4.11 |      |      |      |      |      |
| B9              | 4.37 |      |      |      |      |      |      |      |      |      |      |      |      |
| B10             | 5.56 |      |      |      |      |      |      |      |      |      |      |      |      |
| B11             | 4.60 |      |      |      |      |      |      |      |      |      |      |      |      |
| B12             | 5.00 |      |      |      |      |      |      |      |      |      |      |      |      |

GRAIN MEAN DM% 88.7

**CLEAN GRAIN TONNES/HECTARE, AFTER REMOVING WEED SEEDS**

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

| CHCK DEN        | C0   | C1   | C2   | C3   | C4   | C5   | C6   | C7   | C8   | C9   | C10  | C11  | C12  |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>BARL DEN</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |
| B0              | 4.81 | 4.31 | 4.21 | 4.18 | 4.29 | 4.96 | 4.73 | 4.40 | 4.18 | 4.66 | 4.55 | 4.42 | 4.14 |
| B1              | 3.73 |      |      | 4.40 |      | 3.87 |      | 4.25 |      |      | 4.37 |      |      |
| B2              | 3.94 |      |      | 4.17 |      | 4.29 |      | 3.61 |      |      | 3.26 |      |      |
| B3              | 3.48 |      |      |      |      |      |      |      |      |      |      |      |      |
| B4              | 4.69 |      |      | 4.73 |      | 4.29 |      | 4.29 |      |      | 2.62 |      |      |
| B5              | 4.09 |      |      |      |      |      |      |      |      |      |      |      |      |
| B6              | 4.12 |      |      | 2.96 |      | 2.90 |      | 2.92 |      |      | 2.45 |      |      |
| B7              | 4.07 |      |      |      |      |      |      |      |      |      |      |      |      |
| B8              | 4.19 |      |      |      |      | 2.60 |      | 2.60 |      |      |      |      |      |
| B9              | 3.85 |      |      |      |      |      |      |      |      |      |      |      |      |
| B10             | 5.11 |      |      |      |      |      |      |      |      |      |      |      |      |
| B11             | 3.96 |      |      |      |      |      |      |      |      |      |      |      |      |
| B12             | 3.91 |      |      |      |      |      |      |      |      |      |      |      |      |

PLOT AREA HARVESTED 0.00301