

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1997

[Full Table of Content](#)



97/W/CS/435 Ryegrass, Wheat Volunteers and Diseases - W. Wheat

Rothamsted Research

Rothamsted Research (1998) *97/W/CS/435 Ryegrass, Wheat Volunteers and Diseases - W. Wheat* ; Yields Of The Field Experiments 1997, pp 77 - 78 - DOI: <https://doi.org/10.23637/ERADOC-1-53>

97/W/CS/435

RYEGRASS, WHEAT VOLUNTEERS AND DISEASE

Object: To study how different populations of cereal volunteers and ryegrass sown as a cover crop affect the survival of cereal diseases - Woburn, School Field.

Sponsors: J.F. Jenkyn, R.J. Gutteridge.

The third year, w. wheat.

For previous years see 95-96/W/CS/435

Design: 4 randomised blocks of 10 x 2 plots.

Whole plot dimensions: 6.0 x 10.0.

Treatments:

1. **COV CROP** Crop, seed rate and soil inoculation in 1995:
 - (R) Ryegrass at 30 kg
 - (RW) Ryegrass at 30 kg + wheat at 50 seeds per m²
 - (RI) Ryegrass at 30 kg + soil inoculated with *Phialophora graminicola*
 - (RWI) Ryegrass at 30 kg + wheat at 50 seeds per m² + soil inoculated with *P. graminicola*
 - (M) Mustard at 300 seeds per m²
 - (MW1) Mustard at 100 seeds per m² + wheat at 4 seeds per m²
 - (MW2) Mustard at 100 seeds per m² + wheat at 9 seeds per m²
 - (MW3) Mustard at 100 seeds per m² + wheat at 50 seeds per m²
 - (MW4) Mustard at 100 seeds per m² + wheat at 200 seeds per m²
 - (MW5) Mustard at 30 seeds per m² + wheat at 400 seeds per m²

2. **PLOUGH** Time of ploughing in 1995:
 - (PE) Early (12 May)
 - (PL) Late (17 Aug)

Experimental diary:

- 25-Sep-96 : B : Discd.
- 08-Oct-96 : B : Rotary harrowed.
- 09-Oct-96 : B : Hereward, dressed Sibutol, drilled at 325 seeds per m².
- 12-Dec-96 : B : Javelin Gold at 5.0 l in 200 l.
- 07-Mar-97 : B : 34.5% N at 116 kg.
- 11-Mar-97 : B : Vytel Manganese at 3.0 l with Vassgro Non-ionic at 30 ml in 200 l.
- 12-Mar-97 : B : Stefes Tiger 90 at 15 kg.
- 15-Apr-97 : B : 34.5% N at 464 kg.
- 23-May-97 : B : Standon Fluroxypyr at 0.75 l with Halo at 2.0 l in 300 l.
- 15-Aug-97 : B : Combine harvested.

- NOTES:** (1) Stefes Tiger 90 is a sulphur fertilizer.
(2) Plant samples were taken in April and July to assess root and stem base diseases.

97/W/CS/435

GRAIN TONNES/HECTARE

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

| PLOUGH | (PE) | (PL) | Mean |
|----------|------|------|------|
| COV CROP | | | |
| (R) | 6.84 | 8.03 | 7.43 |
| (RW) | 7.06 | 8.17 | 7.61 |
| (RI) | 8.31 | 7.85 | 8.08 |
| (RWI) | 8.36 | 6.04 | 7.20 |
| (M) | 7.21 | 7.24 | 7.22 |
| (MW1) | 7.96 | 7.01 | 7.48 |
| (MW2) | 6.74 | 7.04 | 6.89 |
| (MW3) | 6.20 | 6.74 | 6.47 |
| (MW4) | 5.86 | 6.76 | 6.31 |
| (MW5) | 6.63 | 6.92 | 6.77 |
| Mean | 7.12 | 7.18 | 7.15 |

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

| COV CROP | PLOUGH | COV CROP PLOUGH |
|----------|--------|--------------------|
| 0.766 | 0.343 | 1.084 |

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

| Stratum | d.f. | s.e. | cv% |
|---------------------|---------|-------|------|
| BLOCK.WP | 57 | 1.532 | 21.4 |
| GRAIN MEAN DM% | 89.7 | | |
| PLOT AREA HARVESTED | 0.00476 | | |