

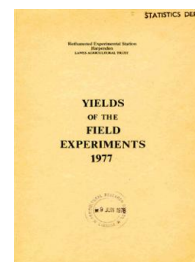
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1977

[Full Table of Content](#)



77/R/B/7 Mildew Control in a Serially Balanced Design - Barley

Rothamsted Research

Rothamsted Research (1978) *77/R/B/7 Mildew Control in a Serially Balanced Design - Barley* ; Yields Of The Field Experiments 1977, pp 359 - 360 - DOI: <https://doi.org/10.23637/ERADOC-1-29>

77/R/B/7

SPRING BARLEY

MILDEW CONTROL IN A SERIALY BALANCED DESIGN

Object: To study the effects of fungicide sprays applied at different times and the effects of interference between plots on the incidence of mildew and on yield - Gt. Harpenden II.

Sponsors: J.F. Jenkyn, A. Bainbridge, G.V. Dyke.

Design: 9 'blocks' of 4 plots (+ 2 flanking plots).

Whole plot dimensions: 4.27 x 9.14

Treatments:

FUNGTIME Times of applying a single spray of tridemorph fungicide:

- | | |
|---|------------|
| 1 | On 31 May |
| 2 | On 9 June |
| 3 | On 20 June |
| 4 | On 5 July |

- NOTES: (1) Treatments were applied to 38 plots in one line on the field in an order such that each of the 36 possible sets of 3 adjacent treatments occurred exactly once (but omitting sets with the same treatment on 2 successive plots). The effects of treatments to neighbouring plots (lefthand neighbour - LHN, righthand neighbour - RHN) are estimated in the analysis.
In this experiment 'left' was west, 'right' was east.
The analysis presented assumes a Fourier curve with 4 terms, 2 sine and 2 cosine to represent positional variation.
- (2) Tridemorph was applied at 0.53 kg in 340 l.

Basal applications: Manures: (20:14:14) at 440 kg, combine drilled. Weedkillers: Dicamba with mecoprop and MCPA ('Banlene Plus' at 4.9 l in 220 l).

Seed: Julia, sown at 160 kg.

Cultivations, etc.: - Deep-tine cultivated: 22 Sept, 1976. Heavy spring-tine cultivated: 28 Sept. Ploughed: 18 Nov. Spring-tine cultivated and seed sown: 10 Mar, 1977. Weedkillers applied: 18 May. Combine harvested: 30 Aug. Previous crops: Potatoes 1975, barley 1976.

NOTE: Seedling emergence counts were made. Mildew was assessed on two occasions.

77/R/B/7

GRAIN TONNES/HECTARE

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

| | | | | |
|------------|------|------|------|------|
| GRAND MEAN | 6.03 | | | |
| FUNGTIME | 1 | 2 | 3 | 4 |
| | 6.19 | 6.07 | 5.91 | 5.95 |
| LHN | 1 | 2 | 3 | 4 |
| FUNGTIME | | | | |
| 1 | | 6.02 | 6.28 | 6.26 |
| 2 | 6.08 | | 6.00 | 6.14 |
| 3 | 5.93 | 5.92 | | 5.87 |
| 4 | 5.86 | 5.87 | 6.11 | |
| RHN | 1 | 2 | 3 | 4 |
| FUNGTIME | | | | |
| 1 | | 6.13 | 6.28 | 6.15 |
| 2 | 6.02 | | 6.11 | 6.08 |
| 3 | 5.91 | 5.81 | | 6.00 |
| 4 | 5.94 | 5.92 | 5.98 | |

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

| TABLE | FUNGTIME | FUNGTIME LHN | FUNGTIME RHN |
|-------|----------|-----------------|-----------------|
| SED | 0.076 | 0.224 | 0.225 |

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

| STRATUM | DF | SE | CV% |
|---------|----|-------|-----|
| WP | 12 | 0.160 | 2.7 |

GRAIN MEAN DM% 82.3

PLOT AREA HARVESTED 0.00195