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# Yields of the Field Experiments 1998

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## 98/R/CS/477 Continuous Maize - Maize, S. Barley

### Rothamsted Research

Rothamsted Research (1999) *98/R/CS/477 Continuous Maize - Maize, S. Barley* ; Yields Of The Field Experiments 1998, pp 100 - 101 - DOI: <https://doi.org/10.23637/ERADOC-1-52>

98/R/CS/477

## CONTINUOUS MAIZE

**Object:** To monitor the fate of organic carbon in the soil organic matter - Hoosfield.

**Sponsors:** P.R. Poulton, J.L. Gaunt.

The second year, maize and s. barley.

**Design:** 3 randomised blocks of 6 plots.

**Plot dimensions:** 12.0 x 25.0.

**Treatments:-**

|             |                                                                                   |
|-------------|-----------------------------------------------------------------------------------|
| <b>CROP</b> | Crop and straw treatments:                                                        |
| BM          | Spring barley, straw removed then maize after three years                         |
| BTM         | Continuous spring barley, straw removed plus 10 t maize tops incorporated         |
| B           | Continuous spring barley, straw removed                                           |
| M           | Continuous maize, stubble incorporated                                            |
| MB          | Maize, stubble incorporated then s. barley after five years                       |
| MTB         | Maize, stubble plus 10 t maize tops incorporated, then s. barley after five years |

### Experimental diary:

19-Sep-97 : T : CROP BTM, MTB: Chopped maize tops at 10 t.  
15-Oct-97 : B : Muriate of potash at 180 kg and triple superphosphate at 170 kg.  
16-Oct-97 : B : Ploughed.  
18-Mar-98 : B : Roundup at 3.0 l in 200 l.  
01-Apr-98 : B : Spring-tine cultivated.  
          : T : CROP BM, BTM, B: Rotary harrowed, Cooper, dressed Raxil S, drilled at 350 seeds per m<sup>2</sup>.  
29-Apr-98 : B : 34.5% N at 275 kg.  
07-May-98 : T : CROP M, MB, MTB: Rotary harrowed, Hudson, dressed Mesurol, drilled at 11 seeds per m<sup>2</sup>.  
04-Jun-98 : T : CROP BM, BTM, B: MSS Optica at 2.0 l with Corbel at 0.3 l and Opus at 0.3 l in 200 l.  
28-Jun-98 : T : Gesaprim 500 SC at 3.0 l with Chiltern Cropoil at 5.0 l in 200 l.  
28-Aug-98 : T : CROP BM, BTM, B: Combine harvested.  
16-Sep-98 : T : CROP M, MB, MTB: Hand harvested.

**NOTE:** Samples of whole crop maize and barley grain and straw were taken for chemical analysis.

# 98/R/CS/477 MAIZE

## WHOLE CROP YIELD TONNES/HECTARE

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

| CROP |       |
|------|-------|
| M    | 10.39 |
| MB   | 10.71 |
| MTB  | 10.16 |
| Mean | 10.42 |

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

| CROP |       |
|------|-------|
|      | 0.568 |

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

| Stratum  | d.f. | s.e.  | cv% |
|----------|------|-------|-----|
| BLOCK.WP | 4    | 0.695 | 6.7 |

CROP MEAN DM% 23.4

PLOT AREA HARVESTED 0.00108

## S. BARLEY

## GRAIN TONNES/HECTARE

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

| CROP |      |
|------|------|
| BM   | 5.17 |
| BTM  | 4.90 |
| B    | 4.80 |
| Mean | 4.95 |

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

| CROP |       |
|------|-------|
|      | 0.188 |

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

| Stratum  | d.f. | s.e.  | cv% |
|----------|------|-------|-----|
| BLOCK.WP | 4    | 0.230 | 4.6 |

GRAIN MEAN DM% 86.1

PLOT AREA HARVESTED 0.00575