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RESEARCH

Yields of the Field Experiments 2001

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Yields of the
Classical
and other
Long-term Experiments
2001

IRACR - Rothamsted

01/W/CS/478 - Woburn Continuous Maize

Rothamsted Research

Rothamsted Research (2002) *01/W/CS/478 - Woburn Continuous Maize* ; Yields Of The Field Experiments 2001, pp 53 - 54 - DOI: <https://doi.org/10.23637/ERADOC-1-258>

01/W/CS/478

CONTINUOUS MAIZE

Object: To monitor the fate of organic carbon in the soil organic matter -
Woburn, Stackyard A I.

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

The fifth year, forage maize and s. barley.

For previous years see 97-00/W/CS/478.

Design: 3 randomised blocks of 6 plots.

Plot dimensions: 9.0 x 25.0.

Treatments:

| CROP | Crop and straw treatments: |
|-------------|--|
| 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 |
| (B)M | Maize after three years of spring barley, straw removed |
| BTM | Continuous spring barley, straw removed plus 10 t maize tops incorporated |
| B | Continuous spring barley, straw removed |

Experimental diary:

10-Oct-00 : **T** : BTM, MTB: Maize tops applied at 225 kg per plot.
20-Oct-00 : **B** : : Potassium sulphate at 217 kg.
: **B** : : Triple superphosphate at 171 kg.
16-Jan-01 : **B** : : Ploughed, /w.
09-Apr-01 : **B** : : Flexitined.
12-Apr-01 : **T** : B, BTM: Combination drilled, Optic, tr. Raxil S, at 350
s/m² with the Accord drill.
13-Apr-01 : **T** : B, BTM: Stomp 400 SC at 2.0 l in 200 l.
22-May-01 : **T** : : Rotary harrowed.
: **T** : M, MB, MTB, (B)M: Drilled, Orient, tr. Mesurool, at 10
s/m² with the Nodet drill.
06-Jun-01 : **B** : : 33.5% N at 286 kg.
19-Jun-01 : **T** : B, BTM: Harmony M at 40 g in 200 l.
05-Jul-01 : **T** : M, MB, MTB, (B)M: Barclay Mutiny at 2.4 l in 200 l.
11-Sep-01 : **T** : B, BTM: Combine harvested plots for yield, and discards,
and swathed straw.
17-Sep-01 : **B** : B, BTM: Baled and carted straw.
29-Oct-01 : **T** : M, MB, MTB, (B)M: Hand harvested, weighed and sampled.
30-Oct-01 : **T** : M, MB, MTB, (B)M: Harvested remaining maize with maize
harvester.

Note: Forage maize and barley grain samples taken for N analysis.

01/W/CS/478 MAIZE

WHOLE CROP TONNES/HECTARE

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

| Treatment | |
|------------------|-------|
| M | 11.00 |
| MB | 12.12 |
| MTB | 12.12 |
| (B)M | 13.21 |
| Mean | 12.11 |

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

| Treatment |
|------------------|
| 1.631 |

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

| Stratum | d.f. | s.e. | cv% |
|---------------------|---------|-------|------|
| Blocks.Plots | 6 | 1.998 | 16.5 |
| GRAIN MEAN DM% | 42.6 | | |
| PLOT AREA HARVESTED | 0.00108 | | |

S. BARLEY

GRAIN TONNES/HECTARE

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

| Treatment | |
|------------------|------|
| BTM | 1.40 |
| B | 1.03 |
| Mean | 1.21 |

GRAIN MEAN DM% 84.9

PLOT AREA HARVESTED 0.00600