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# Yields of the Field Experiments 2003

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Results of the  
Classical  
and other  
Long-term Experiments  
2003

Rothamsted Research

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## 03/W/CS/478 - Woburn Continuous Maize

### Rothamsted Research

Rothamsted Research (2004) *03/W/CS/478 - Woburn Continuous Maize* ; Yields Of The Field Experiments 2003, pp 49 - 50 - DOI: <https://doi.org/10.23637/ERADOC-1-260>

03/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.

The sixth year, forage maize and s. barley.

For previous years see 97-02/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
(M)B	S. barley after five years maize, stubble incorporated
MT	Maize, stubble plus 10 t maize tops incorporated
(B)M	Maize after three years of spring barley, straw removed
BT	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

**Experimental diary:**

13-Sep-02 : T : BT, MT: Maize tops applied at 225 kg per plot.  
19-Sep-02 : B : CleanCrop Egret at 4.0 l in 200 l.  
20-Sep-02 : B : Muriate of potash at 180 kg.  
: B : Triple superphosphate at 171 kg.  
30-Oct-02 : B : Ploughed 25 cm wide furrows.  
20-Mar-03 : B : Power harrowed.  
21-Mar-03 : T : (M)B, BT, B: Drilled, Optic, tr. Raxil S plus Aventis  
Manganese 500, at 425 seeds/m<sup>2</sup> with the Accord  
drill.  
22-Mar-03 : T : (M)B, BT, B: Rolled.  
12-May-03 : T : (B)M, MT, M: Rotary harrowed.  
: T : (B)M, MT, M: Drilled, Hudson, tr. Mesurool, at 10.2  
seeds/m<sup>2</sup> with the Nodet drill.  
14-May-03 : B : Sulphur Gold (30% N, 7.6% S) at 320 kg.  
15-May-03 : B : (M)B, BT, B: tm)Ally at 30 g in 220 l.  
: B : tm)Starane 2 at 0.75 l in 220 l.  
13-Jun-03 : B : (B)M, MT, M: tm)Gesaprim at 3.0 l in 220 l.  
: B : tm)Phase II at 2.0 l in 220 l.  
10-Aug-03 : T : (M)B, BT, B: Combine harvested plots for yield.  
12-Aug-03 : T : (M)B, BT, B: Baled.  
27-Aug-03 : T : (B)M, MT, M: Cut sample areas, weighed, and sampled.  
04-Sep-03 : T : (B)M, MT, M: Cut discards.

**NOTE:** Forage maize and barley grain samples were taken for N analysis.

03/W/CS/478

**MAIZE**

**GRAIN TONNES/HECTARE**

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

CROP	
M	2.93
MT	3.81
(B)M	3.06
Mean	3.27

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

CROP  
1.188

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	1.455	44.5

GRAIN MEAN DM% 32.5

PLOT AREA HARVESTED 0.00108

**SPRING BARLEY**

**GRAIN TONNES/HECTARE**

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

CROP	
(M)B	4.74
BT	3.97
B	3.29
Mean	4.00

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

CROP  
0.150

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	0.184	4.6

GRAIN MEAN DM% 91.6

PLOT AREA HARVESTED 0.00525