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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/R/CS/477 - Rothamsted Continuous Maize

Rothamsted Research

Rothamsted Research (2002) 01/R/CS/477 - Rothamsted Continuous Maize ; Yields Of The Field Experiments 2001, pp 51 - 52 - DOI: <https://doi.org/10.23637/ERADOC-1-258>

01/R/CS/477

CONTINUOUS MAIZE

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

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

The fifth year, forage maize and s. barley.

For previous years see 97-00/R/CS/477

Design: 3 randomised blocks of 6 plots.

Plot dimensions: 12.0 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 s. barley with straw removed
BTM	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

Experimental diary:

11-Oct-00 : T : BTM, MTB: Maize tops at 300 kg per plot.
17-Oct-00 : B : : Sulphate of potash at 217 kg.
 : B : : Triple superphosphate at 171 kg.
20-Oct-00 : B : : Ploughed, /n.
31-Mar-01 : T : B, BTM: Combination drilled, Optic, tr. Raxil S, at 350 s/m² with the Accord drill.
19-May-01 : T : B, BTM: tm)Ally at 20 g in 100 l.
 : T : B, BTM: tm)Starane 2 at 0.5 l in 100 l.
21-May-01 : T : M, MB, MTB, (B)M: Rotary harrowed.
 : T : M, MB, MTB, (B)M: Drilled, Hudson, tr. Mesuro1 at 102,000 seeds/ha, with the Nodet Gougis drill.
 : T : M, MB, MTB, (B)M: Sting ECO at 4.0 l in 200 l to maize plots.
31-May-01 : B : : 33.5% N at 300 kg.
11-Jun-01 : T : B, BTM: Opus at 0.4 l in 100 l.
02-Jul-01 : T : B, BTM: Folicur at 0.5 l in 200 l.
03-Jul-01 : T : M, MB, MTB, (B)M: Mutiny at 2.4 l in 200 l.
05-Sep-01 : T : B, BTM: Cut and baled straw, headlands.
06-Sep-01 : T : B, BTM: Combine harvested plots for yield, swathed straw.
07-Sep-01 : T : B, BTM: Combine harvested, all remaining barley, swathed and straw.
29-Oct-01 : T : M, MB, MTB, (B)M: Cut yield areas by hand, weighed and sampled.
31-Oct-01 : T : M, MB, MTB, (B)M: Cut maize discards.

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

MAIZE

WHOLE CROP TONNES/HECTARE

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

Treatment	
M	9.16
MB	8.60
MTB	9.05
(B)M	9.40
Mean	9.05

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

Treatment
1.093

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

Stratum	d.f.	s.e.	cv%
Blocks.Plots	6	1.338	14.8

GRAIN MEAN DM% 26.1

PLOT AREA HARVESTED 0.00108

S. BARLEY

GRAIN TONNES/HECTARE

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

Treatment	
BTM	2.98
B	2.66
Mean	2.82

GRAIN MEAN DM% 79.5

PLOT AREA HARVESTED 0.00600