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Yields of the Field Experiments 2002

Yields of the Classical and other Long-term Experiments 2002

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Rothamsted Research

Rothamsted Research (2003) 02/R/CS/477 - Rothamsted Continuous Maize; Yields Of The Field Experiments 2002, pp 51 - 52 - DOI: https://doi.org/10.23637/ERADOC-1-259

02/R/CS/477

CONTINUOUS MAIZE

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Object: To monitor the fate of organic carbon in the soil organic matter -
   Hoosfield.
Sponsors: P.R. Poulton, J. Gaunt.
The sixth year, forage maize and s. barley.
For previous years see 97-01/R/CS/477
Design: 3 randomised blocks of 6 plots.
Plot dimensions: 12.0 x 25.0.
Treatments: -
CROP
                  Crop and straw treatments:
                  Continuous maize, stubble incorporated
                  S. barley after five years maize, stubble incorporated
(M)B
                  Maize, stubble plus 10 t maize tops incorporated
МТ
                  Maize, after three years of s. barley with straw removed
(B) M
                  Continuous spring barley, straw removed plus 10 t maize
BT
                     tops incorporated
                  Continuous spring barley, straw removed
Experimental diary:
                       : Sulphate of potash at 217 kg.
   06-Nov-01 : B :
                        : Triple superphosphate at 171 kg.
             : B :
             : T : BT, MT: Maize tops at 300 kg per plot.
                      : Ploughed, started.
   12-Nov-01 : B :
                       : Ploughed, completed.
   13-Nov-01 : B :
   08-Apr-02 : B : (M)B, BT, B: Sting ECO at 4.0 l in 200 l.
   09-Apr-02 : \mathbf{T} : (M)B, BT, B: Combination drilled, Optic, tr. Raxil S, at
                            350 seeds/m<sup>2</sup> with the Accord 2 drill.
   10-Apr-02 : T : (B)M, MT, M: Flexitined.
: T : (M)B, BT, B: Rolled.
                       : 33.5% N at 284 kg.
   02-May-02 : B :
   03-May-02 : T : (B)M, MT, M: Rotary harrowed.
              : T : (B)M, MT, M: Drilled, Hudson, tr. Mesurol, at 102,000
                            seeds/ha with the Nodet Gougis drill.
             : T : (M)B, BT, B: tm)Ally at 30 g in 200 l.
                       : tm) Duplosan KV at 1.0 l in 200 l.
              : T :
                        : tm) Amistar at 0.4 l in 200 l.
             : T :
                       : tm)Unix at 0.5 kg in 200 l
   19-Jun-02 : T : (B)M, MT, M: tm)Lentagran WP at 1.5 kg in 200 l.
                       : tm) Mutiny at 0.6 l in 200 l.
              : T :
   27-Aug-02 : T : (M)B, BT, B: Combine harvested plots for yield. Swathed
                            straw.
   28-Aug-02 : T : (M)B, BT, B: Combine harvested discards, started.
                            Swathed straw.
   02-Sep-02 : B : (M)B, BT, B: Combine harvested all remaining barley.
                            Swathed straw. Baled straw.
   03-Sep-02 : B : (M)B, BT, B: Carted bales.
   11-Sep-02 : T : (B)M, MT, M: Cut discard maize. Cut sample areas by
                            hand, weighed and sampled.
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NOTE: Forage maize and barley grain samples were taken for N analysis.

02/R/CS/477 MAIZE

WHOLE CROP (AT 100% DRY MATTER) TONNES/HECTARE

**** Tables of means ****

Treatment

M 9.22 (B)M 9.29 MT 9.40

Mean 9.30

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

Treatment

1.412

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

Stratum

d.f.

s.e.

CV%

Blocks.Plots

4

1.729

18.6

GRAIN MEAN DM% 25.1

PLOT AREA HARVESTED 0.00108

S. BARLEY

GRAIN TONNES/HECTARE

**** Tables of means ****

Treatment

(M) B 3.57 BT 2.76 B 2.55

Mean 2.96

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

Treatment

0.237

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

Stratum

d.f.

s.e.

CV%

Blocks.Plots

4

0.290

9.8

GRAIN MEAN DM% 83.9

PLOT AREA HARVESTED 0.00525