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Yields of the Field Experiments 2009

Full Table of Content

R/CS/477 & W/CS/478 Continuous Maize

Rothamsted Research

Rothamsted Research (2010) *R/CS/477 & W/CS/478 Continuous Maize ;* Yields Of The Field Experiments 2009, pp 54 - 59 **- DOI: https://doi.org/10.23637/ERADOC-1-219**

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09/R/CS/477

CONTINUOUS MAIZE

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

Sponsors: A. J. Macdonald

The 13th year, forage maize and s. barley

For previous years see Yield Books for 97-08/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
(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 s. barley with straw removed
BT	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

Experimental diary

			Rate	Unit
06-Oct-08	a	Apply maize tops, plots 3, 6, 9, 12, 16, &18 at 300 kg/plot	10.00	t/ha
16-Oct-08	f	Triple Superphosphate	171.00	kg/ha
	f	Muriate of Potash	181.00	kg/ha
05-Nov-08	a	Plough/ N		
26-Mar-09	a	Springtined		
	a	Combination Drilled		
	s	Optic Tr Raxil Pro	350.00	seeds/m2
	a	Rolled		
11-May-09	a	Rotavate prep for maize		
12-May-09	a	Power Harrowed		
	a	Nodet Drilled		
	s	Hudson tr mesurol + thiram	10.20	seeds/m2
14-May-09	f	Double Top	356.00	kg/ha
20-May-09	p	Headland Charge	1.50	l/ha
	p	Duplosan KV	1.50	l/ha
	p	Harmony M SX	100.00	g/ha
	p	Fandango	1.00	l/ha
	p	Flexity	0.20	l/ha

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			Rate	Unit
04-Jun-09	p	Amistar Opti	1.00	l/ha
	p	Proline	0.30	l/ha
15-Jun-09	p	Callisto maize only	0.75	l/ha
	p	Samson maize only	1.00	l/ha
30-Jun-09	a	Mow / Rotavate paths		
12-Aug-09	a	Mow / Rotavate paths		
13-Aug-09	a	Mow / Rotavate paths cut paths		
27-Aug-09	a	Combine harvest, S. Barley plots for yield		
28-Aug-09	a	Combine harvest		
29-Aug-09	a	Baled		
10-Sep-09	a	Hand cut maize and removed crop		

MAIZE

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

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

```
    Treatment
            M       10.35
         (B)M       11.02
           MT       10.06

         Mean       10.48


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

Table            Treatment
s.e.d.               1.305


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

Stratum                        d.f.          s.e.         cv%

Blocks.Plots                      4         1.598        15.3

MEAN DM%        21.4

PLOT AREA HARVESTED   0.00108
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SPRING BARLEY

GRAIN TONNES/HECTARE

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

Treatment	
(M)B	4.65
BT	5.00
B	4.81
Mean	4.82

Standard errors of differences of means

Table	Treatment
s.e.d.	0.221

Stratum standard errors and coefficients of variation

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	0.270	5.6

Grain mean dm% 81.0

Plot area harvested 0.00525

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09/W/CS/478

CONTINUOUS MAIZE

Object: To monitor the fate of organic carbon in the soil organic matter – Woburn, Stackyard AI

Sponsors: A. J. Macdonald

The 13th year, forage maize and s. barley

For previous years see Yield Books for 97-08/W/CS/478

Design: 3 randomised blocks of 6 plots.

Plot dimensions: 9.0 x 25.00

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 s. barley with straw removed
BT	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

Experimental diary

			Rate	Unit
02-Oct-08	a	Broadcast maize tops at 225 kg/plot, plots 2, 4, 12, 13, 16, and 17.	10.00	t/ha
06-Oct-08	a	Topped to tidy		
16-Oct-08	f	Triple Superphosphate	171.00	kg/ha
	f	Muriate of Potash	181.00	kg/ha
	a	Plough/ NE		
02-Apr-09	s	Optic tr Raxil Pro		
21-May-09	a	Rotavate		
	a	Drilled		
	s	Hudson tr Measurol	10.20	S/m2
30-May-09	a	Broadcast		
	f	Double Top	355.00	kg/ha
03-Jun-09	p	Opus	0.50	L in 200 l/ha
	p	Amistar	0.40	L in 200 l/ha
18-Jun-09	p	Callisto	0.75	l/ha
	p	Samson	0.50	l/ha
24-Aug-09	a	Combine harvest spring barley plots		
	a	Combine harvest discards		
26-Aug-09	a	Baled		
02-Sep-09	a	Remove bales		
03-Sep-09	a	Hand cut Maize plots and removed crop		

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MAIZE

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

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

Treatment	
M	11.44
MT	11.25
(B)M	11.17
Mean	11.29

Standard errors of differences of means

Table	Treatment
s.e.d.	0.515

Stratum standard errors and coefficients of variation

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	0.630	5.6

MEAN DM% 23.8

PLOT AREA HARVESTED 0.00108

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09/W/CS/478

SPRING BARLEY

GRAIN TONNES/HECTARE

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

Treatment	
(M)B	3.43
BT	3.79
B	3.25
Mean	3.49

Standard errors of differences of means

Table	Treatment
s.e.d.	0.134

Stratum standard errors and coefficients of variation

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	0.164	4.7

Grain mean dm% 86.1

Plot area harvested 0.00525

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