This work is licensed under a Creative Commons Attribution 4.0 International License.

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readible, or you suspect there are some problems, please let us know and we will correct that.

Yields of the Field Experiments 2012

Full Table of Content

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

Rothamsted Research

Rothamsted Research (2013) *R/CS/477 & W/CS/478 Continuous Maize ;* Yields Of The Field Experiments 2012, pp 57 - 61 **- DOI: https://doi.org/10.23637/ERADOC-1-222**

This work is licensed under a Creative Commons Attribution 4.0 International License.

12/R/CS/477

CONTINUOUS MAIZE

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

Sponsors: A. J. Macdonald

The 16th year, forage maize and s. barley

For previous years see Yield Books for 97-11/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)	S. barley, after ten years of Maize, straw removed
BT	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

Note: Cropping was changed from Maize to S. barley on the BM treatment in 2010

Experimental diary

Date		Application	Rate	Units
29-Sep-11	f	Applied Triple Super Phosphate, as per plan	-	
29-Sep-11	f	Applied Muriate of Potash, as per plan	-	
01-Oct-11	a	Spread Maize Tops, as per plan	10	t/ha
01-Oct-11	a	Ploughed	-	
27-Mar-12	s	Flexi tined before drilling	-	-
27-Mar-12	a	Drilled Tipple Sp. Barley tr Beret Multi	350	Seeds/m^2
28-Mar-12	a	Rolled - Finished	-	
13-May-12	s	Drilled Hudson (Maize - dressed with Mesural)	10.2	Seed/m^2
13-May-12	a	Powerharrowed	-	
22-May-12	P	Sprayed Spring Barley w/ Amistar, Corbel and Duplosan	Am@1.0 Co@0.25 Du@2.0	l/ha
23-May-12	f	Broadcast Double Top; 27% N, 30% SO_3 - Maize and Barley	356	kg/ha
10-Jun-12	p	Sprayed w/ Seguris, Harmony and Inka used to top up in 200l/ha of water	Se@0.7, Ha@100* In@60*	l/ha, *g/ha
20-Jun-12	p	Sprayed Samson Extra and Callisto in 200l/ha of water	Sa@0.75 Ca@1.5	l/ha
12-Jul-12	p	Sprayed Dow Shield in 200l/ha of water	0.5	l/ha
01-Aug-12	a	Marking out Experiment	-	

https://doi.org/10.23637/ERADOC-1-222

This work is licensed under a Creative Commons Attribution 4.0 International License.

07-Aug-12	a	Paths Cut and Cultivated	-	
24-Aug-12	a	Harvested Barley	-	
24-Aug-12	a	Sampled Baled and Weighed	-	
31-Aug-12	a	Harvested odds and ends	-	
20-Sep-12	p	Sprayed Whole field w/ Weedazol EW	20	l/ha
27-Sep-12	a	Harvested Maize for Yield	-	
27-Sep-12	a	Harvested and Chopped Maize odds and ends	-	
28-Sep-12	f	Spread MOP and TSP	MOP181 TSP171	kg/ha
05-Oct-12	a	Applied Maize tops to plots 3,6,9,12,16,18 @300kg/plot	10	t/ha

NOTE: Samples of barley grain and maize (whole crop) were taken for chemical analyses.

https://doi.org/10.23637/ERADOC-1-222

This work is licensed under a Creative Commons Attribution 4.0 International License.

12/R/CS/477

MAIZE

WHOLE CROP TONNES/HECTARE (100% DM)

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

Treatment	
M	7.13
MT	8.01
M(B)	8.90
Mean	8.02

Standard errors of differences of means

Table	Treatment
s.e.d.	1.549

Stratum standard errors and coefficients of variation
==========

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	1.897	23.7

GRAIN MEAN DM% 24.7

Plot area harvested 0.00108

SPRING BARLEY

GRAIN TONNES/HECTARE

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

Treatment	
BT	5.92
B	5.23
B(M)	5.74
Mean	5.63

Standard errors of differences of means

Table	Treatment
s.e.d.	0.280

Grain mean DM% 83.7

Plot area harvested 0.00525

https://doi.org/10.23637/ERADOC-1-222

This work is licensed under a Creative Commons Attribution 4.0 International License.

12/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 16th year, forage maize and s. barley

For previous years see Yield Books for 97-11/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)	S. barley, after ten years of maize, straw removed
BT	Continuous spring barley, straw removed plus 10 t maize tops incorporated
B	Continuous spring barley, straw removed

Note: Cropping was changed from Maize to S. barley on the BM treatment in 2010

Experimental diary

Date		Application	Rate	Units
23-Nov-10	a	Spread chopped maize as per plan.	-	
23-Nov-10	a	Ploughed, dowdeswell 4 furrow at 14".	-	
25-Mar-11	a	Flexi Tined.	-	
25-Mar-11	a	Combination Drilled Optic on spring barley plots only. Cambridge rolled.	350	seeds/m^2
25-Apr-11	f	Broadcast Double Top; 27% N, 30% SO_3 - Maize and Barley	356	kg/ha
05-May-11	a	Rotary Harrowed. Drilled Hudson (Maize) dressed Mesurol.	10.2	seeds/m^2
20-May-11	p	Sprayed Thor in 200 l/ha of water on spring barley plots only	20	g/ha
07-Jun-11	p	Sprayed Callisto with Samson in 200l/ha of water on Maize plots only	Ca@1.0 Sa@0.75	l/ha
01-Sep-11	a	Combined Barley plots	-	
02-Sep-11	a	Combined O+Es	-	
07-Sep-11	a	Baled and removed straw	-	
26-Sep-11	a	Cut Maize for yields	-	
06-Oct-11	a	Cut remainder of maize including discards, bale and clear bales	-	

NOTE: Samples of barley grain and maize (whole crop) were taken for chemical analyses.
12/W/CS/478

https://doi.org/10.23637/ERADOC-1-222

This work is licensed under a Creative Commons Attribution 4.0 International License.

MAIZE

WHOLE CROP TONNES/HECTARE (100% DM)

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

Treatment	
M	6.72
MT	6.76
M(B)	5.68
Mean	6.39

Standard errors of differences of means

Table	Treatment
s.e.d.	1.367

Stratum standard errors and coefficients of variation

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	1.674	26.2

MEAN DM% 24.5

PLOT AREA HARVESTED 0.00108

SPRING BARLEY

GRAIN TONNES/HECTARE

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

Treatment	
BT	5.04
B	4.55
B(M)	5.08
Mean	4.89

Standard errors of differences of means

Table	Treatment
s.e.d.	0.095

Stratum standard errors and coefficients of variation

Stratum	d.f.	s.e.	cv%
Blocks.Plots	4	0.116	2.4

GRAIN MEAN DM% 84.3

PLOT AREA HARVESTED 0.00525

https://doi.org/10.23637/ERADOC-1-222