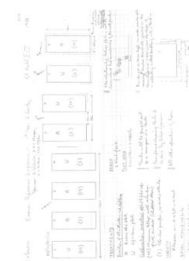


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ROTHAMSTED  
RESEARCH

# Collection of Plans for the Woburn Erosion Reference Experiment



[Full Table of Content](#)

## Collection of Plans for the Woburn Erosion Reference Experiment - 1988 - 1998

### Rothamsted Research

Rothamsted Research (1988-1998) *Collection of Plans for the Woburn Erosion Reference Experiment - 1988 - 1998* ; Collection Of Plans For The Woburn Erosion Reference Experiment, pp 1 - 11

206

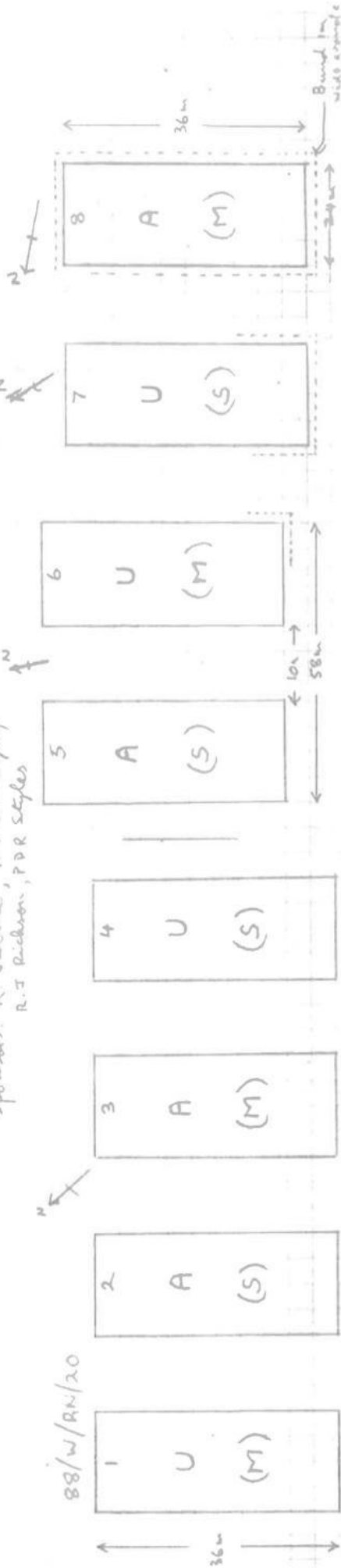
Woburn

Erona Reference Experiments 1st Year S barley

Sponsors: R. Webster, R.P.C. Morgan, R.F. Rickson, P.R. Styles

88/W/AN/20

1988



The relationship between plots is not as shown above but as indicated by the north points:-

DESIGN

2 blocks of 2x2

PLOT AREA

$24m \times 36m = 0.864ha$

TREATMENTS

Direction of all cultivations and sowing

A Across the plots

U Up & down plots

Cultivation practices, applied to first cuts

(M) Minimum tillage with retention of crop residues (chopped straw)

(S) Standard practice, no residue retention

VARIETY

Blascon, sown at 150 kg/ha on 30 March

BASAL MANURING 160 kg

'Nitram' at 340 kg on 5 May

Bunds are 10-30 cm high, 1 m wide, erected after sowing, tractor-traversable, graded on the down-slope and 1:200 across the slope to a collecting outlet emptying into a tank:-



Tanks will be pumped out to a main gun or a tanker

Pumping & cleaning tanks to be done by Silcof operators

All other operations by Farm

206

Woburn

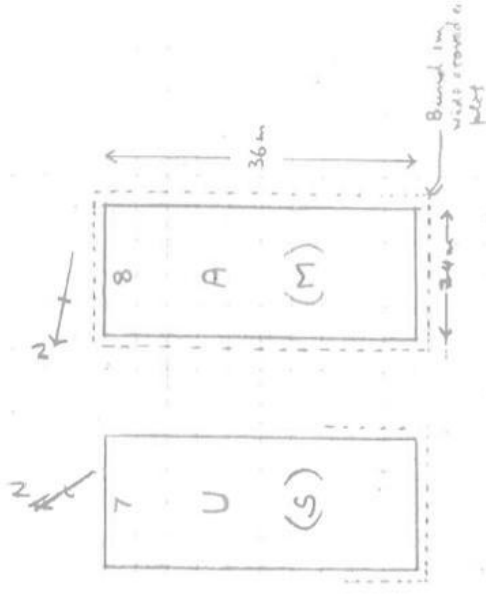
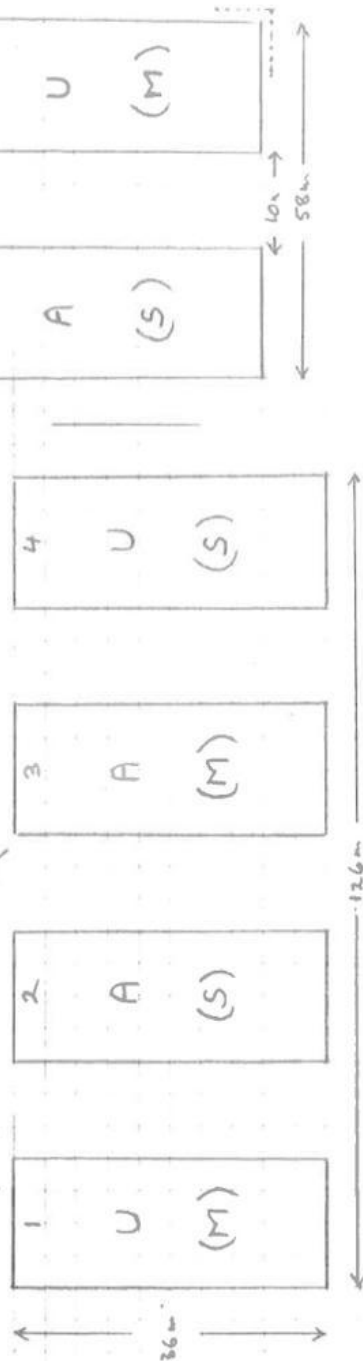
Erosion Reference Experiment 2nd Year Potatoes

St Hill II/III

1989

Sponsors: R. Webster, R.P.C. Morgan,  
R.F. Richon, P.R. Styles

89/W/RN/20



The relationships between plots as shown above but as indicated by the North points:-

TREATMENTS

Direction of all cultivations and plantings

- A Across the plots
- U Up & down plots

Cultivation practice

- (M) Minimum tillage: 1988 barley straw chopped & tined into 10cm
- 1989 potato haulm pulverized & retained
- (S) Standard practice: 1988 barley straw baled & removed
- 1989 potato haulm removed.

VARIETY

Estima, planted 10 May  
BASAL MANURING 160 kg  
(13:13:20) at 1800 kg

DESIGN

2 block of 2x2

PLOT AREA

$2.4 \text{ m} \times 36 \text{ m} = 0.0864 \text{ ha}$

Tanks will be pumped out to a main gun or a tanker

Pumping & cleaning tanks to be done by Silvol & Jenson

All other operations by Farm

Bonil or any at 5 kg to seedbed



Row

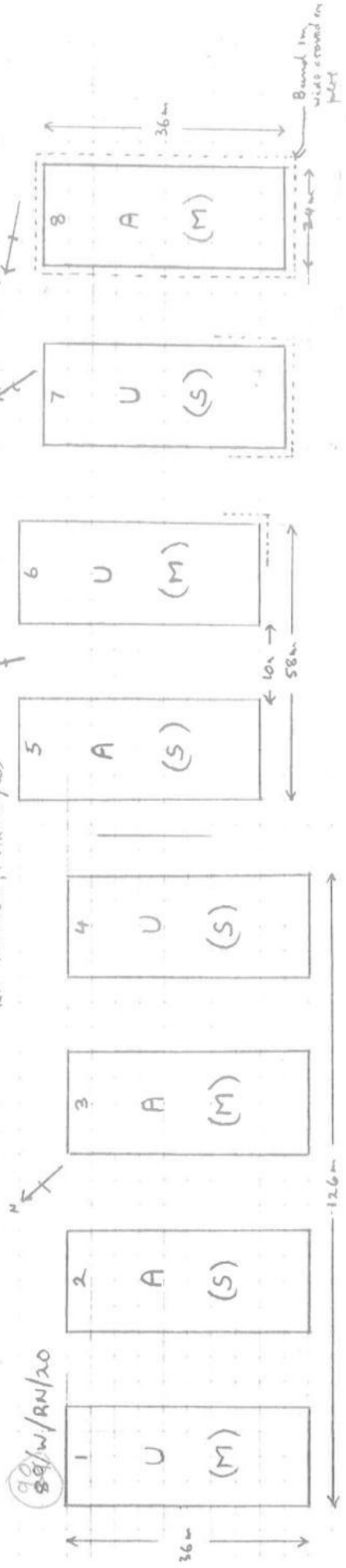
Bands are 10-30cm high, 1m wide, erected after planting tractor-trailable, graded on the down slope and 1:20 across the slope to collecting outlet emptying into a tank:-



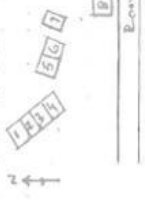
206  
90  
1989

Exp Hill II/III

Woburn Erosion Reference Experiment 3rd Year W. Wheat  
Sponsors: R. Webster, R.P.C. Morgan, R.J. Rickson, P.R. Styles



The relationships between plots is not as shown above but as indicated by the North points:-



Bunds are 10-30cm high, 1m wide, erected after sowing. Tractor-traversable, graded on the down slope and 1:200 across the slope to a collecting outlet emptying into a tank:-



TREATMENTS

Direction of all cultivation and planting

- A Across the plots
- U Up & down plots

Cultivation practices

- (M) Minimum tillage: 1989 potato haulm pulverized & retained, 1990 wheat straw chopped & tined in to 10cm
- (S) Standard practice: 1989 potato haulm removed, 1990 wheat straw baled & removed

VARIETY

Marcia sown @ 1kg/ha, Date:

BASAL MANURING

S.F.P.

DESIGN

2 blocks of 2x2

PLOT AREA

$24m \times 36m = 0.864 \text{ ha}$

Tanks will be pumped out to a main gun or a tanker

Pumping & cleaning tanks to be done by Silver & Sons

All other operations by Farm

7.9.89

200

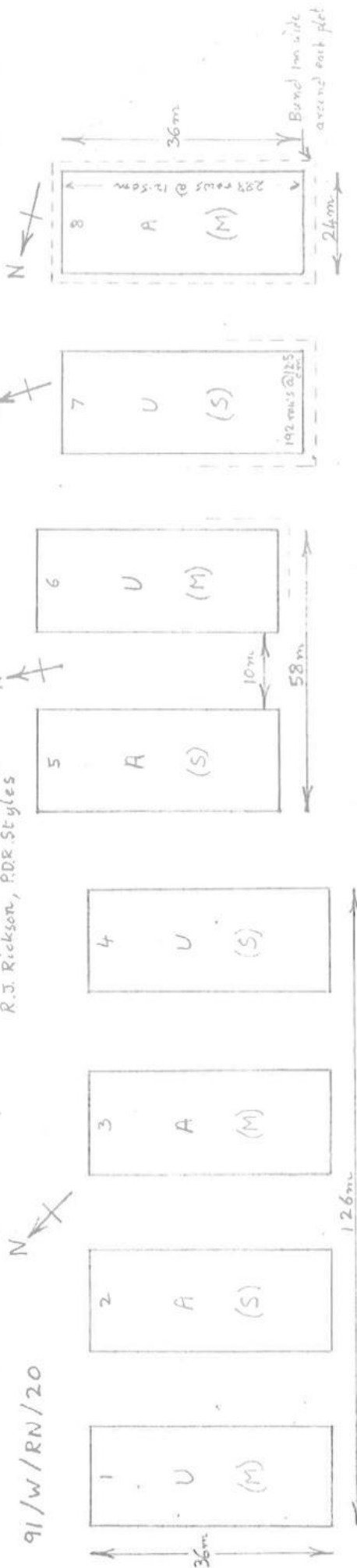
WOUBURN W. barley

EROSION REFERENCE EXPERIMENT  
Sponsors J.A. Catt, RPCMorgan,  
R.J. Rickson, PDR Styles

4th Year

GREAT HILL II/III 1991

91/W/RN/20



TREATMENTS

Direction of all cultivations and plowing

- A Across the plots
- U Up and down the plots.

Cultivation practices

- M) Minimum tillage: 1989 potato harrow, pulverizer & retained
- : 1990 wheat straw chopper, tined, 10cm
- : 1991 barley straw

Standard practice

- : 1989 plow, haulm removed
- : 1990 wheat straw baled & removed
- : 1991 barley straw

VARIETY

Magis  
D. ISOHYM  
S.F. ~~W. BARLEY~~

DESIGN

2 blocks of 2x2

PLOT AREA

$24m \times 36m = 0.864ha$

Tanks will be pumped out to a rain gun or a tanker

Pumping & cleaning tanks to be done by Silcoe Spencers

ALL other operations by Farm

22. SEP 1990

The relationship between plots is not as shown above but as indicated by the Northprints

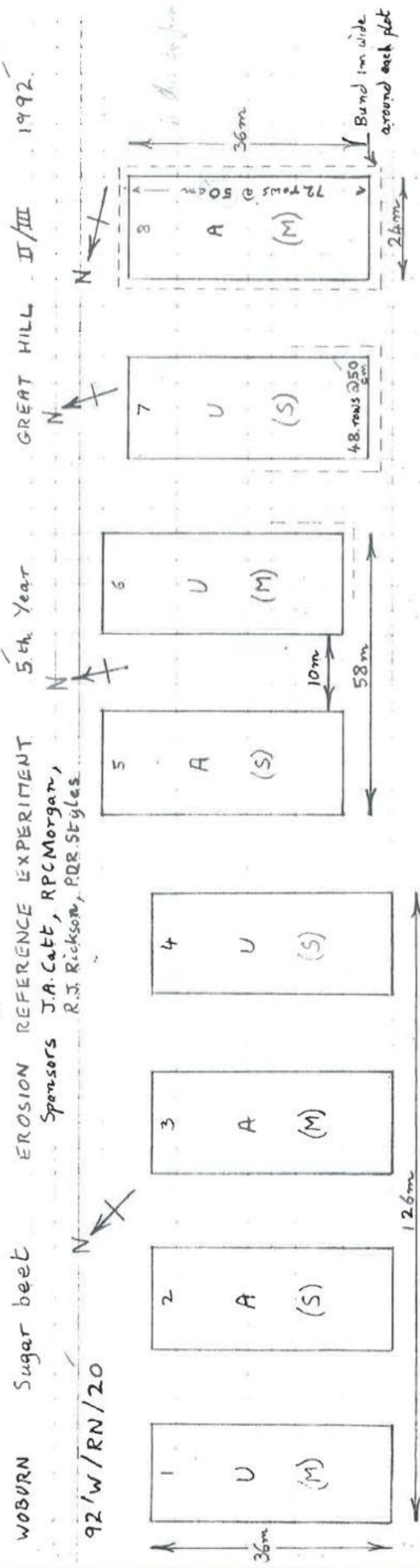


COMPLETE & RETURN

TO F.I.E.S.

29 AUG 1990

205



WOBURN Sugar beet  
 92'W/RN/20  
 EROSION REFERENCE EXPERIMENT  
 Sponsors J.A. Catt, R.P.C. Morgan, R.J. Rickson, P.D.R. Styles  
 5th Year  
 GREAT HILL II/III  
 1992

TREATMENTS

Direction of all cultivations and planting

- A Across the plots
- U Up and down the plots.

Cultivation practice

- M) Minimum tillage: 1989 potato haulm pulverized & retained
- : 1990 wheat straw chopped & retained to 10cm
- : 1991 barley straw
- : 1992 s. beet tops retained
- S) Standard practice: 1989 potato haulm removed
- : 1990 wheat straw baled & removed
- : 1991 barley straw
- : 1992 s. beet tops removed

VARIETY

Basal Manuring N in spring  
 NPK water

DESIGN

2 blocks of 2x2

PLOT AREA

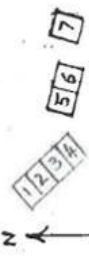
$24m \times 36m = 0.0864ha$

Tanks will be pumped out to a rain gun or a tanker.

Pumping & cleaning tanks to be done by Silise sponsors.

ALL other operations by farm.

The relationship between plots is not as shown above but as indicated by the North points



8

ROAD

ORDER OF OPERATIONS 1991/1992

- Mid-November (S) plots ploughed & pressed
- (M) plots uncultivated
- Mid-February (S) plots cultivated to seedbed
- (M) plots ploughed & cultivated to seedbed

CHECKED: [Signature]

DATE 9.10.96

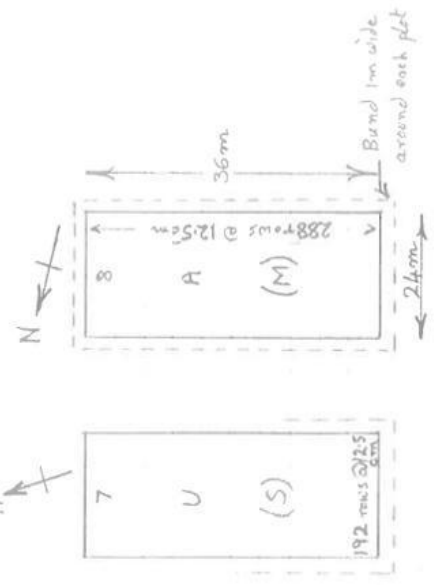
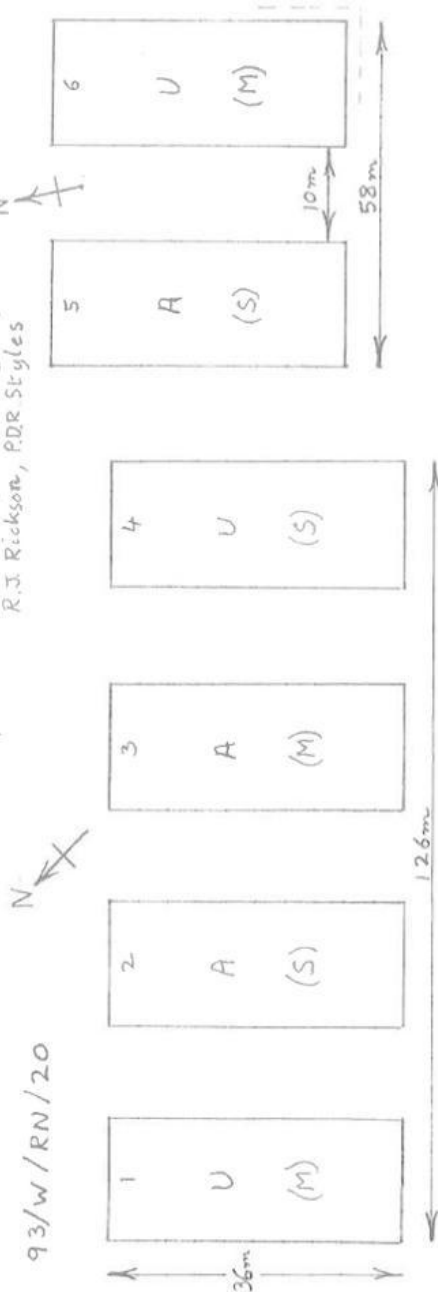
205

WOBURN W. wheat  
93/W/RN/20

EROSION REFERENCE EXPERIMENT  
Sponsors J.A. Catt, R.P.C. Morgan,  
R.J. Rickson, P.D.R. Styles

6th Year

GREAT HILL II/III 1993



TREATMENTS

Direction of all cultivations and planting  
A Across the plots  
U Up and down the plots.

Cultivation practice

- M) Minimum tillage: 1989 potato haulm pulverized & retained
- : 1990 wheat straw chopped & retained to 10cm
- : 1991 barley straw .. .. .
- : 1992 subsoil: tops retained
- : 1993 wheat straw chopped & retained to 10cm
- S) Standard practice : 1989 potato haulm removed
- : 1990 wheat straw baled & removed
- : 1991 barley straw .. .. .
- : 1992 subsoil: tops removed
- : 1993 wheat straw baled & removed

VARIETY: ~~M~~ sown at 1g/ha on  
BASAL FERTILISER: NPK Na Mg at 5FP.

SORSSON 2 166 kg/ha

Inilled 26 JAN 1993

DESIGN

2 blocks of 2x2

PLOT AREA  
24m x 36m = 0.0864ha

- || Tanks will be pumped out to a rain gun or a tanker
- || Pumping & cleaning tanks to be done by Silcock sponsors
- || ALL other operations by Farm

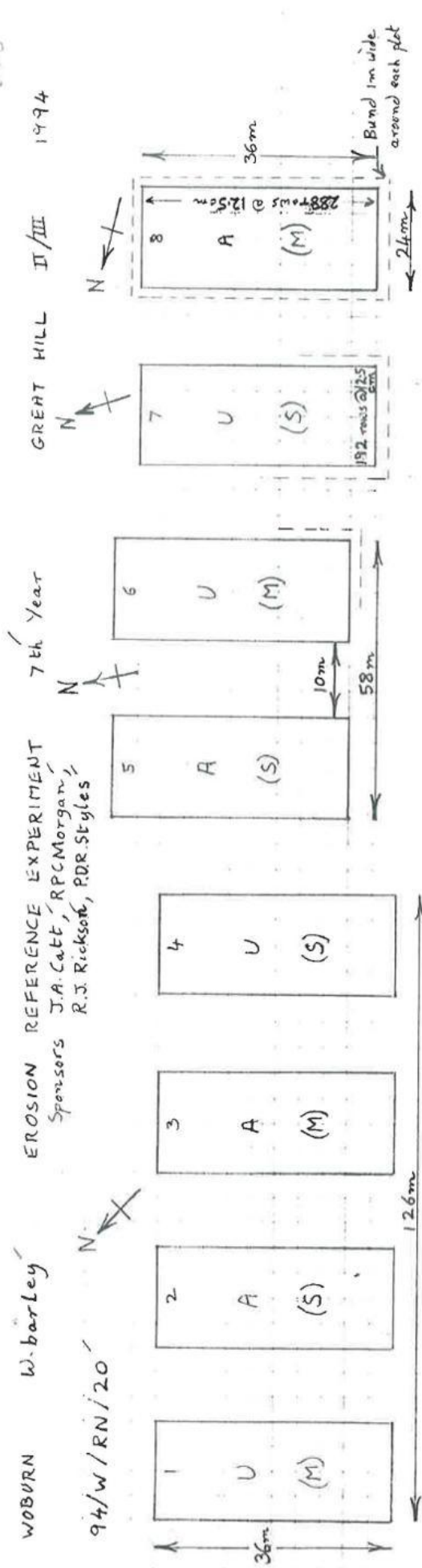
The relationship between plots is not as shown above but as indicated by the North points:-



COMPLETE & RETURN

to F. E. S.

2001 JAN 1993



**TREATMENTS**  
 Direction of all cultivations and planting  
 A Across the plots  
 U Up and down the plots.

**Cultivation practice**  
 (M) Minimum tillage: 1989 potato haulm pulverized & retained  
 : 1990 wheat straw chopped & tined to 10cm  
 : 1991 barley straw .. ..  
 : 1992 s. beet tops retained  
 : 1993 & 4 .. straw chopped tined to 10cm  
 (S) Standard practice : 1989 potato haulm removed  
 : 1990 wheat straw baled & removed  
 : 1991 barley straw .. ..  
 : 1992 s. beet tops removed  
 : 1993 & 4 straw baled & removed  
 VARIETY Puffin' sown at kg/ha on  
 BASAL MANURE N P K Na Mg at 5FP.

**DESIGN**  
 2 blocks of 2x2

**PLOT AREA**  
 $24m \times 36m = 0.0864ha$

Tanks will be pumped out to a rain gun or a tanker

Pumping & cleaning tanks to be done by Silsoe sponsors

All other operations by Farm

The relationship between plots is not as shown above but as indicated by the North points.

1 2 3 4  
 5 6 7 8

ROAD

CHECKED ATB  
 DATE 17 8 93





205

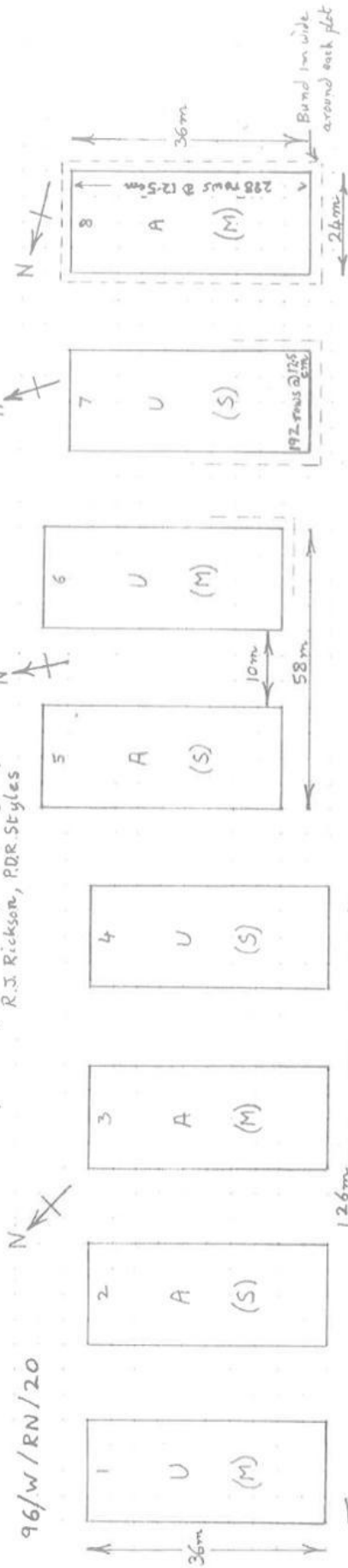
WOBURN W. wheat

EROSION REFERENCE EXPERIMENT  
Sponsors; J.A. Catt, R.P.C. Morgan,  
R.J. Rickson, P.D.R. Styles

9th Year

GREAT HILL II/III 1996

96/W/RN/20



TREATMENTS

Direction of all cultivations and planting

- A Across the plots
- U Up and down the plots.

Cultivation practice

- (M) Minimum tillage: 1989 potato haulm pulverized & retained
- : 1990 & 1 straw chopped & retained to 10cm
- : 1992 5: beet tops retained
- : 1993, 4 & 6 straw chopped & retained to 10cm
- : 1995, 00 1989
- (S) Standard practice: 1989 potato haulm removed
- : 1990 & 1 straw baled & removed
- : 1992 5: beet tops removed
- : 1993, 4 & 6 straw baled & removed
- : 1995 00 1989

VARIETY Hereward dressed Panactina @ 375 seeds/m<sup>2</sup> on 9 Oct 1995  
DISAL TREATMENT NPK as SF.P.

DESIGN

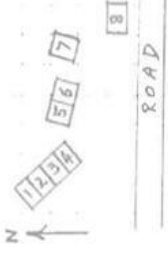
2 blocks of 2x2

PLOT AREA

$24m \times 36m = 0.864ha$

- || Tanks will be pumped out to a rain gun or a tanker
- || Pumping & cleaning tanks to be done by Farm
- || All other operations by Farm

The relationship between plots is not as shown above but as indicated by the North points:-



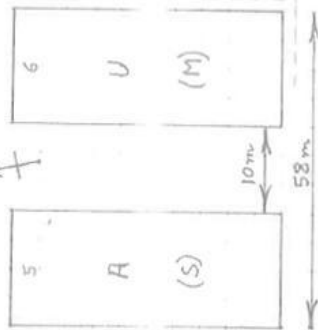
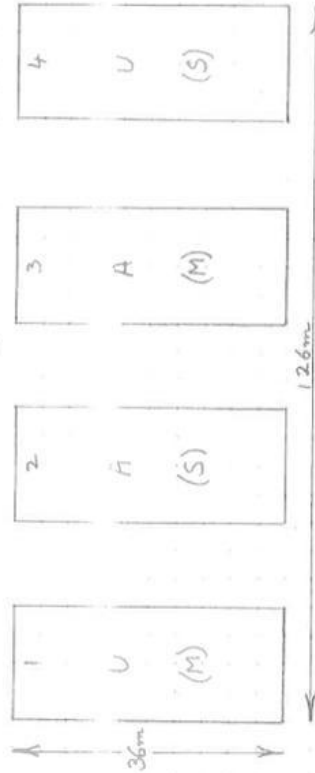
205

WOBURN W. Bartley  
97/W/RN/20

EROSION REFERENCE EXPERIMENT  
Sponsors: J.A. Catt, R.P. Morgan,  
R.J. Rickson, P.D.R. Styles

10th Year

GREAT HILL II/III 1997



TREATMENTS

Direction of all cultivations and planting

- A Across the plots
- U Up and down the plots.

Cultivation practice

- (M) Minimum tillage: 1989 potato haulm pulverised & retained
- : 1990 & 1 straw chopped & tined to 10cm
- : 1992 5: beet tops retained
- : 1993, 4, 6, 7 straw chopped & tined to 10cm
- : 1995, as 1989
- (S) Standard practice: 1989 potato haulm removed
- : 1990 & 1 straw baled & removed
- : 1992 5: beet tops removed
- : 1993, 4, 6, 7 straw, baled & removed
- : 1995 as 1989

VARIETY

Basal manurial NPK as SF.P.  
Glean dressed Raxils sown @ 400 seeds/m<sup>2</sup> on 3 Oct 1996

DESIGN

2 blocks of 2 x 2

PLOT AREA

24m x 36m = 0.0864ha

Tanks will be pumped out to a rain gun or a tanker

Pumping & cleaning tanks to be done by Farm

All other operations by Farm



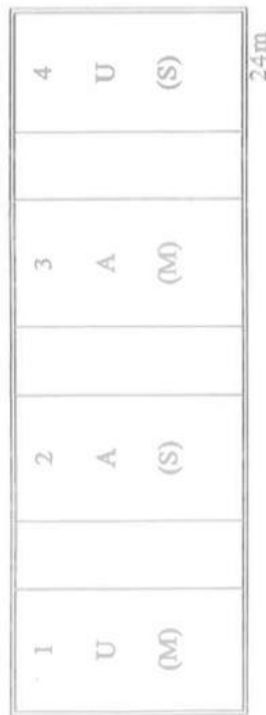
The relationship between plots is not as shown above but as indicated by the North points.



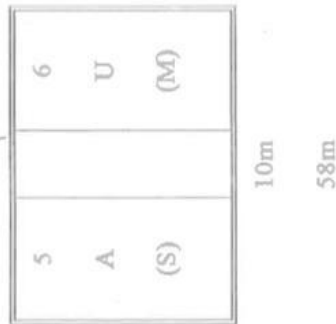
Fodder beet

11th year

Sponsors: A.M. Hunt

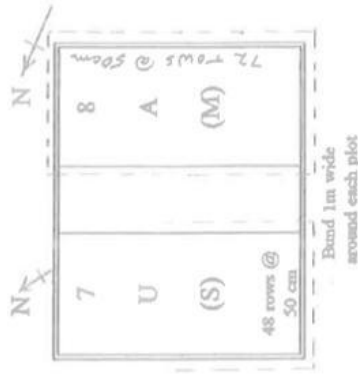


126m



10m

58m



**Treatments**

Direction of all cultivations and planting

- A Across the plots
- U Up and down the plots

**Cultivation practice**

- (M) Minimum tillage : 1989 & 95 potato haulm pulverized and retained
- : 1990,1,3,4,6 & 7 straw chopped and tined to 10 cm
- : 1992 & 8 sugar beet tops retained
- (S) Standard practice : 1989 & 95 potato haulm removed
- : 1990,1,3,4,6 & 7 straw removed
- : 1992 & 8 sugar beet tops removed

**Variety**

Nestor dressed TMTD and Gaucho sown at 10 seeds/m<sup>2</sup> on 19 March 1998

**Basal manuring**  
NPK and Na at sfp

**Design**  
2 blocks of 2 x 2

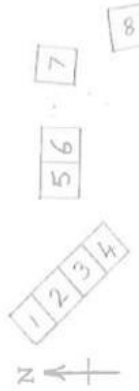
**Plot area**  
24 m x 36 m = 0.0864 ha

// Tanks will be pumped out to a rain gun or a tanker

// Pumping and cleaning tanks to be done by Farm

// All operations by Farm

The relationship between plots is not as shown above but as indicated by the North points



**Order of operations 1997/8**

Mid-November : (S) plots ploughed and pressed  
(M) plots uncultivated

Mid-February:  
(S) plots cultivated to seedbed  
(M) plots ploughed and cultivated to seedbed