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Collection of Plans for the Woburn Organic Manuring Experiment

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W/RN/12 - Woburn Organic Manuring 1990 - 1994

Rothamsted Research

Rothamsted Research (1966-1988) *W/RN/12 - Woburn Organic Manuring 1990 - 1994* ; Collection Of Plans For The Woburn Organic Manuring Experiment, pp 25 - 29

WOBURN

ORGANIC MANURING

EXPERIMENT

26 TH Year

STACKYARD B.

1990

Sponsor: P. R. Poulton

TREATMENTS to Winter Wheat (NW) and Winter Beans (BE)

Residues of Organic Manures

(Dg) FYM annually 1985-71 and 1981-85

(St) Straw annually 1965-71 and 1981-85

(Gm) Green Manure annually 1965-71 then (Lc8) Ley (clover/grass)

1979-86 (BE) 1980-87 (NW)

(Pt) Peat annually 1965-71 then (Lc8) 1979-86 (BE) 1980-87 (NW)

Residues of Fertilizers

(Fd) P, K, Mg equivalent to (Dg) rate annually 1965-71 and 1981-85 (BE) (NW)

(Fs) K, Mg equivalent to straw with P annually 1965-71 then

± Dg rate 1981-86 (NW) 7 (BE)

Legs: (Lc) (clover/grass/ley) 1965-71 then (Lc6) 1981-86 (BE) 7 (NW) - clover grass ley

(Lc7) Grass ley with N

Sub Plot N Treatments. kg ha⁻¹

1, 2, 3, 4, 5 0, 50, 100, 150, 200, 250 (NW)

(-) 1, 2, 3, 4, 5 0, 50, 100, 150, 200, 250, (BE) applied in 1989.

STANDARD APPLICATIONS per hectare

Manures: (0:17:34) @ 588 kg with seed and

Mn foliar spray @ SFP in spring. (BE) and (NW)

Wheat only: Carbofuran @ 7.5 kg, Drazo pellet's (standard rate) must be applied

7-14 days before sowing, repeat with seed

VARIETIES: BE Banner sown @ Kgha¹ Date;

NW Mercia sown @ Kgha¹ Date.

SOB PLOT AREA: 14' x 30' = 0.0039 ha.

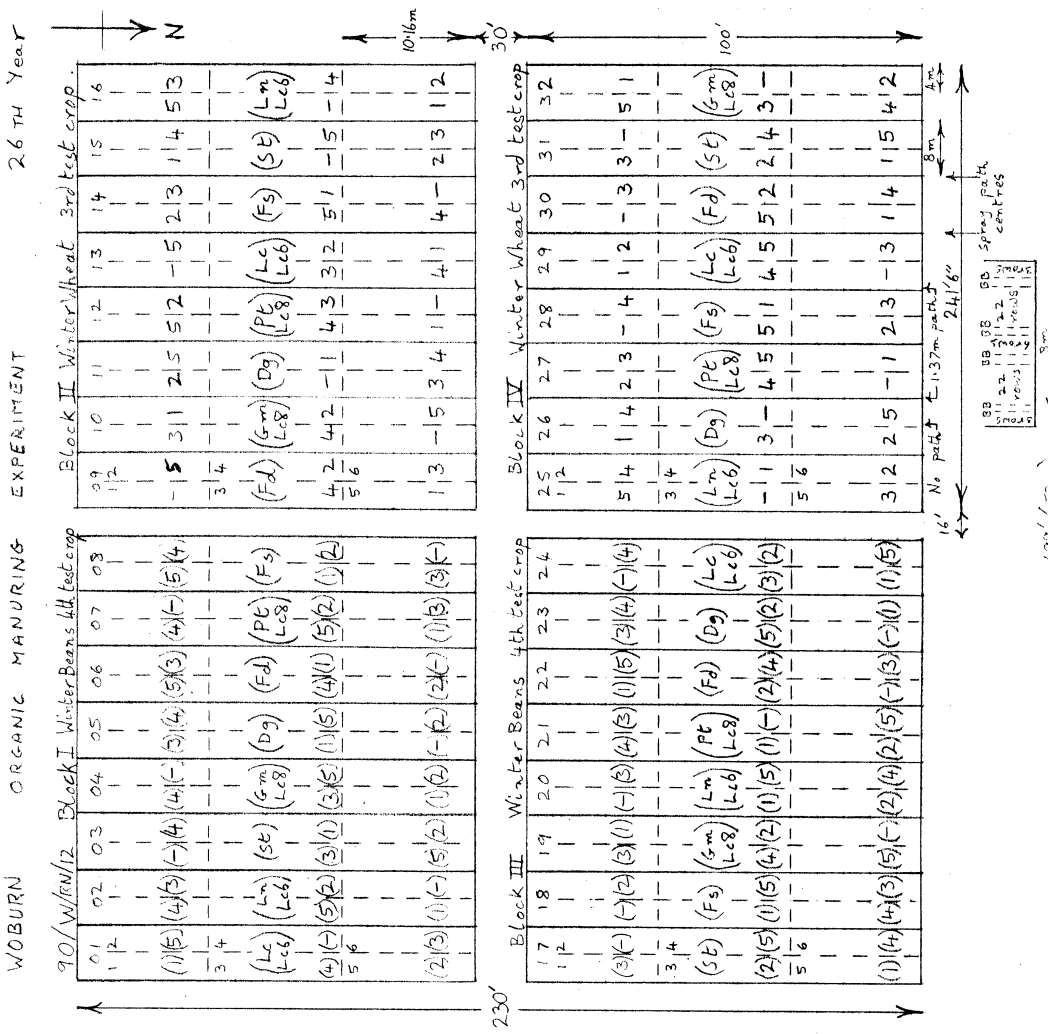
Wheat plots drilled without paths between sub-plots. Cross paths

to be cut just before N application to allow for maximum

sampling area before them.

W.Beans are sown solid, seed ploughed in, and paths

cut later



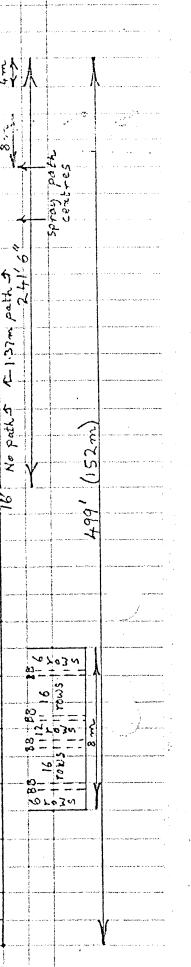
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WOBURN W. wheat & W. beans
 91/W/RN/12 Block I W. wheat
 27th Year STACKYARD B 1991
 Sponsor: PR. Peulston
 TREATMENTS to W. wheat (NW) and W. beans (BE)

ORGANIC MANURING EXPERIMENT
 Residues of organic manures

Block II W. beans
 Block III W. wheat
 Block IV W. beans
 4th test crop

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
(Lc) (Lc6)	(Lc) (Lc6)	(S) (Lc8)	(S) (Lc8)	(Dg) (Lc8)	(F) (Lc8)	(P) (Lc8)	(F) (Lc8)	(F) (Lc8)	(G) (Lc8)	(G) (Lc8)	(S) (Lc8)	(S) (Lc8)	(S) (Lc8)	(S) (Lc8)	(S) (Lc8)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)
33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)	(S) (Lc6)



Residues of organic manures
 (Dg) FYM annually 1965-71 and 1981-85
 (S) Straw annually 1965-71 and 1981-85
 (G-m) Green manure annually 1965-71 then (Lc8) Leg (clover/grass) 1979-86 (BE) 1980-87 (NW)
 (P) Peat annually 1965-71 then (Lc8) 1979-86 (BE) 1980-87 (NW)
 Residues of Fertilizers
 (F) P, K, Mg equivalent to (Dg) rate, annually 1965-71 and 1981-6 (BE) 7 (NW)
 (F) K, Mg equivalent to straw with P annually 1965-71 then
 (F) Dg rate 1981-6 (NW) 7 (BE)
 Lays: (Lc) Clover/grass by } 1965-71 then (Lc6) 1981-6 (BE) 7 (NW) - clover/grass leg
 (Lc) Grass by with N }

Sub plot N Treatments Kg N ha⁻¹
 -1, 2, 3, 4, 5. 0, 50, 100, 150, 200, 250. NW
 (-) (1) (2) (3) (4) (5). 0, 50, 100, 150, 200, 250. BE applied in 1970 & previous Ws

STANDARD APPLICATIONS ha⁻¹
 Manures: BE: (0.16:36) @ 556kg
 NW: (0.16:36) @ 556kg
 Min. foliar spray @ 5FP in spring

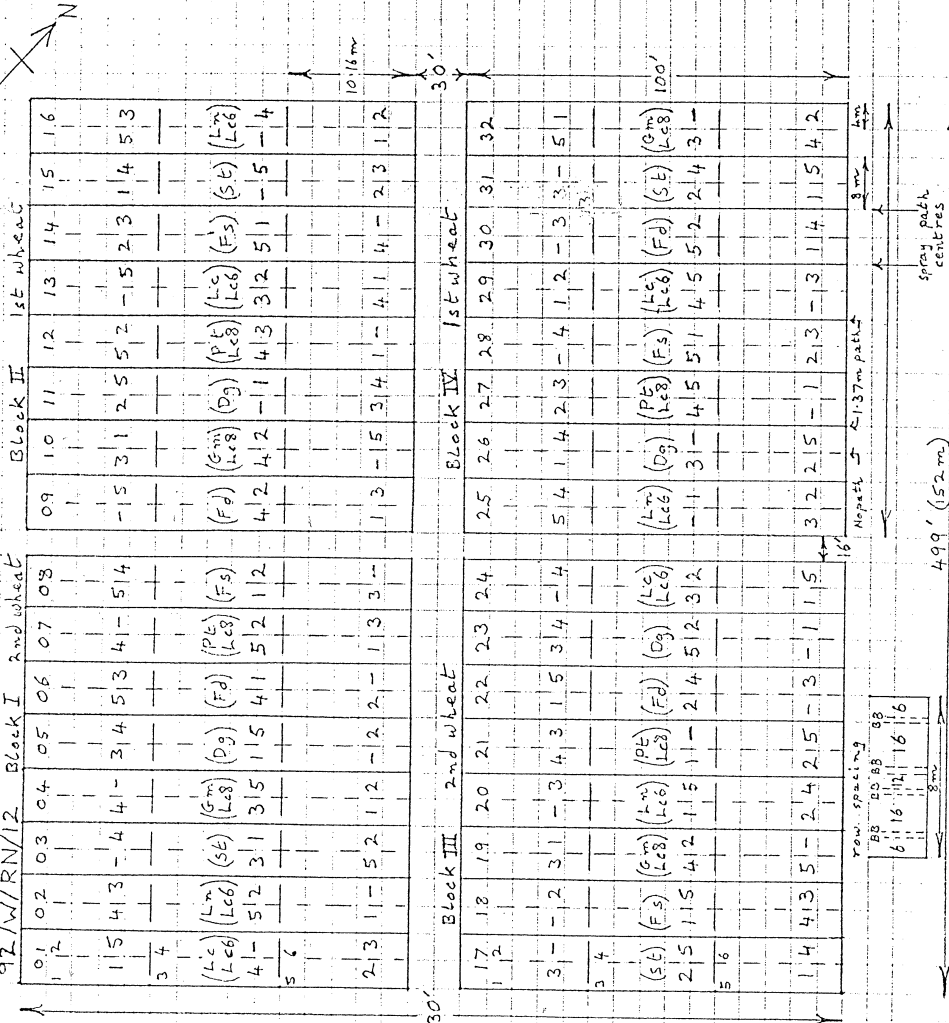
VARIETIES: BE Banner sown @ 2.1 t/ha / m² (150 kg/ha) on 23 October 1990
 NW Hereta sown @ 150 kg/ha Date: 27 September 1990

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 28th year STACKYARD B 1992
 Sponsor: P. R. Poulton

ORGANIC MANURING EXPERIMENT

WOBURN W. Wheat

92 W/RN/12



TREATMENTS

Residues of organic manures

- (Dg) FYM annually 1965-71 and 1981-85
- (St) straw annually 1965-71 and 1981-85
- (Gm) Green manure annually 1965-71 then (Lc8) 1st
- (Lc8) (Claver/grass) 1979-88 (Blks I-III) 1980-87 (Blks IV-VI)
- (Pb) Peat annually 1965-71 then (Lc8) 1979-86 (Blks I-III) 1980-87 (Blks IV-VI)
- Residues of Fertilizers
 - (Fd) P K Mg. Equivalent to (Dg) rate, annually 1965-71 & 1981-85 (Blks I-III) 1980-87 (Blks IV-VI)
 - (Fs) K Mg. Equivalent to straw with P annually 1965-71 then 1/2 Dg rate. 1981-86 (Blks IV-VI) 7 (Blks I-III)
- Loys: (Lc) Claver/grass, Loys 1965-71 then (Lc6) 1981-86 (Blks I-III) 7 (Blks IV-VI)
- (Ln) Grass loys with N - clover/grass. Loys

Subplot N Treatments Kg N/ha
 - 1, 2, 3, 4, 5. 0, 50, 100, 150, 200, 250.

BASEAL MANURE

P.K. (0:16:36) @ 560 kg/ha on 3 Oct 1991
 Mn foliar spray @ 5FP in spring

VARIETY

Marela sown @ 140 kg/ha on 3 Oct 1991
 SUBPLOT AREA 14' x 30' = 0.0039 ha.

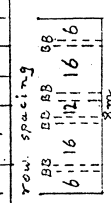
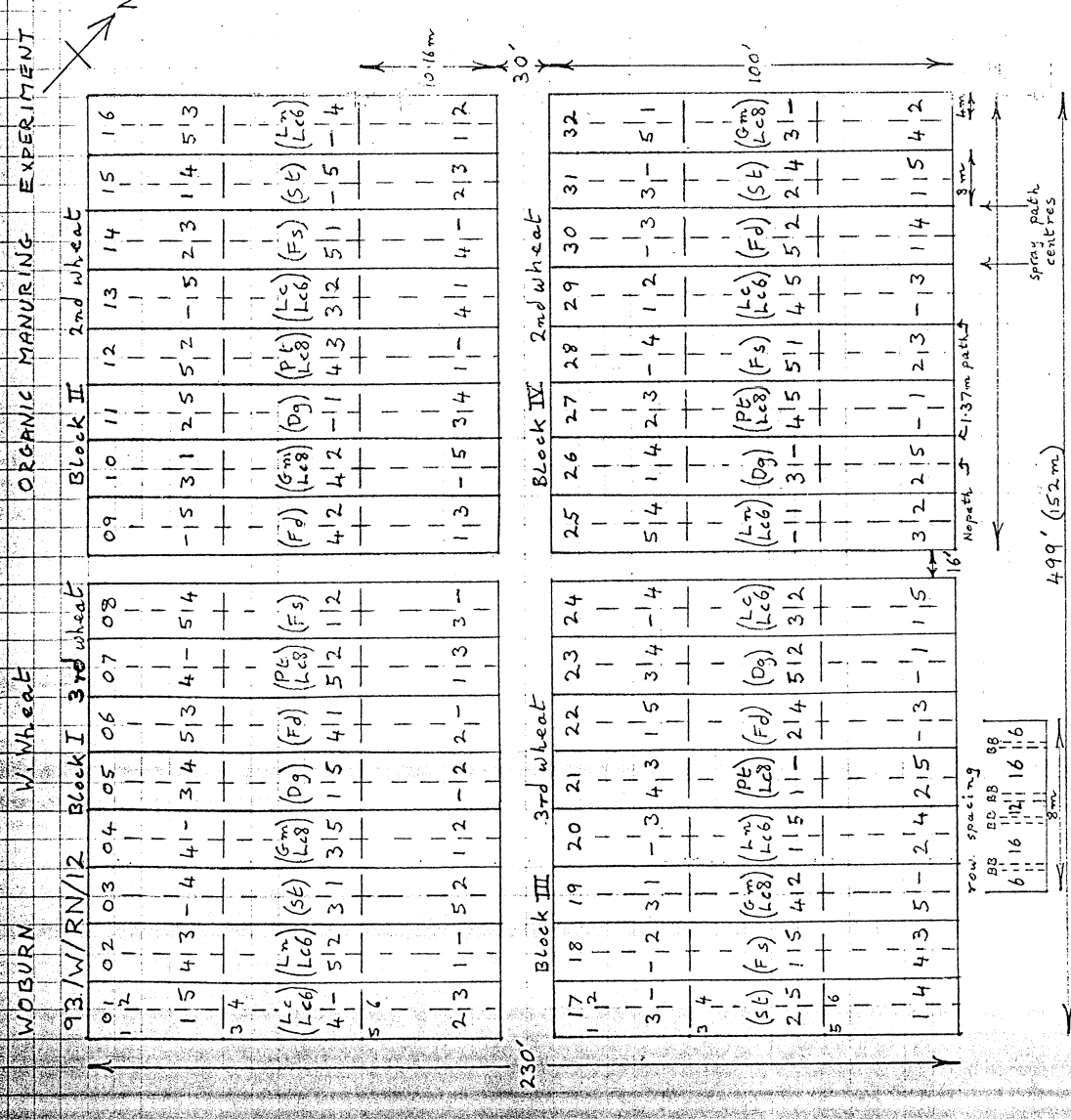
WOBURN 1993 29th year STACKYARD B 1993 204
 Sponsor: P. R. Poulton

TREATMENTS
 Residues of organic manures
 (Dg) FYM annually 1965-71 and 1981-85
 (St) Straw annually 1965-71 and 1981-85
 (Gm) Green manure annually 1965-71 then (Lc8) Ley
 (clover/grass) 1979-86 (Blks I & III) 1980-87 (Blks II & IV)
 (Pt) Peat annually 1965-71 then (Lc8) 1979-86 (Blks I & III) 1980-87 (Blks II & IV)
 Residues of Fertilisers
 (Fd) P K Mg Equivalent to (Dg) rate, annually 1965-71 & 1981-86 (Blks I & III) 7 (Blks II & IV)
 (Fs) K Mg Equivalent to straw with P annually 1965-71 then
 1/2 Dg rate 1981-6 (Blks II & IV) 7 (Blks I & III)
 Lays: (Lc) clover/grass ley } 1965-71 then (Lc6) 1981-86 (Blks I & III) 7 (Blks II & IV) -
 (Lm) Grass ley with N } - clover/grass ley

Subplot N Treatments Kg N ha⁻¹
 -, 1, 2, 3, 4, 5. 0, 50, 100, 150, 200, 250.

BASAL MANURE
 P & K (0:16:36) @ 556 Kg ha⁻¹
 Mn foliar spray @ SFP in spring

VARIETY
 Mercia sown @ 130 Kg ha⁻¹ on 7 Oct 1992
 SUB PLOT AREA 14' x 30' = 0.0039 ha.



30th year STACKYARD B 1994
 Sponsor: P. R. Poulton

WOBURN W. Wheat
 ORGANIC MANURING EXPERIMENT
 3rd wheat

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
12	15	413	41	314	513	41	514	-15	31	215	52	-15	23	14	513
34															
(Lc)	(Lm)	(St)	(Gm)	(Dg)	(Fd)	(Pt)	(Fs)	(Fd)	(Gm)	(Dg)	(Pt)	(Lc)	(Fs)	(St)	(Lc)
41	512	31	315	115	41	512	112	412	412	-11	413	312	511	-15	-14
56															
213	11	52	112	-12	21	113	31	113	-15	314	1	411	41	213	112

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
12	31	31	31	413	15	314	-14	514	14	213	-4	12	-3	31	51
34															
(St)	(Fs)	(Gm)	(Lm)	(Pt)	(Fd)	(Dg)	(Lc)	(Lm)	(Dg)	(Pt)	(Fs)	(Lc)	(Fd)	(St)	(Gm)
215	115	412	115	11	214	512	312	-11	31	415	511	415	512	214	31
516															
14	413	51	214	215	-13	115	115	312	215	-1	213	-13	114	115	42

TREATMENTS
 Residues of organic manures

- (Dg) FYM annually 1965-71 and 1981-85
 - (St) Straw annually 1965-71 and 1981-85
 - (Gm) Green manure annually 1965-71 then (Lc) ley (Clover/grass) 1979-86 (Blks I & III) 1980-87 (Blks II & IV) (Pt) Peat annually 1965-71 then (Lc) 1979-86 (Blks I & III) 1980-87 (Blks II & IV)
- Residues of Fertilizers
 (Fd) PK Mg Equivalent to (Dg) rate, annually 1965-71 & 1981-86 (Blks I & III) 7 (Blks II & IV)
 (Fs) K Mg Equivalent to straw with P annually 1965-71 then
 1/2 Dg rate 1981-86 (Blks II & IV) 7 (Blks I & III)
 Lays: (Lc) Clover/grass ley 1965-71 then (Lc) 1981-86 (Blks I & III) 7 (Blks II & IV) -
 (Lm) Grass ley with N - clover/grass ley

Subplot N Treatments Kg N ha⁻¹
 1, 2, 3, 4, 5. 0, 50, 100, 150, 200, 250.

BASAL MANURE
 P & K (0.16:36) @ 556 kg/ha for blocks II & IV only
 Mn foliar spray @ 5FP in spring

VARIETY
 Mercia dressed Panicle @ 325 seeds/m² on 16 Oct 1993

SUB PLOT AREA
 14' x 30' = 0.37 ha.
 Harvested area = 2m x 9/16 = 0.00183 ha

row spacing

88	80	88	88	
611	16	121	16	116
11	11	11	11	11
8m				