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RESEARCH

# Collection of Plans for the Woburn Organic Manuring Experiment

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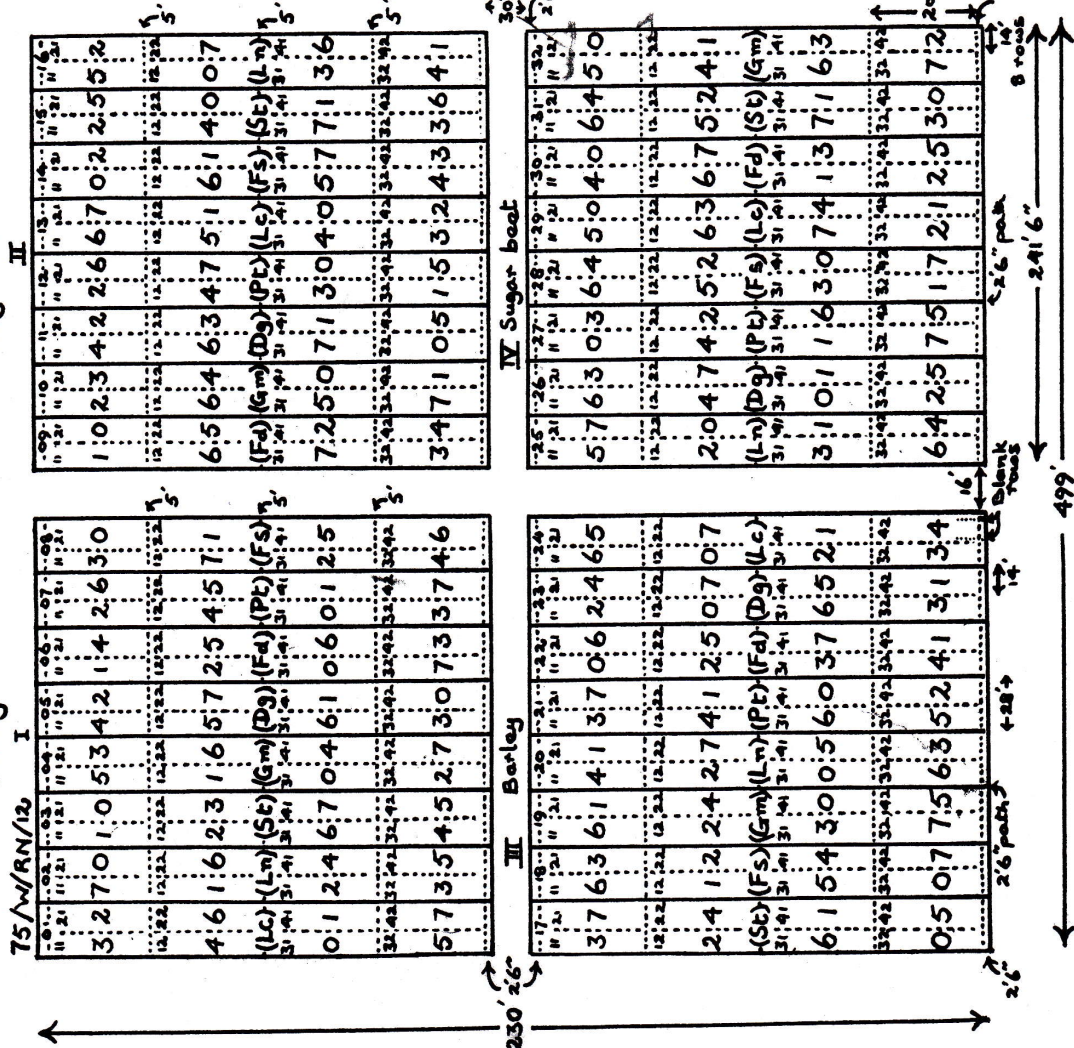
## W/RN/12 - Woburn Organic Manuring 1975 - 1979

### Rothamsted Research

Rothamsted Research (1966-1988) *W/RN/12 - Woburn Organic Manuring 1975 - 1979* ; Collection Of Plans For The Woburn Organic Manuring Experiment, pp 10 - 14

11th year  
 STACKYARD B 1975  
 Sponsor: G.E.G. Mattingly

WOBURN ORGANIC MANURING EXPERIMENT Sugar beet



TREATMENTS per acre (hectare)  
 Residues of Organic Manures (applied annually 1965-71) and Ley (see N(965))  
 (Dg) 4 tons (10 tonnes) (DM) FYM, (16 tons [40 tonnes] FYM)  
 (St) 3 tons (7.5 tonnes) (DM) Straw  
 (Pt) 3 tons (7.5 tonnes) (DM) Peat  
 (Gm) Green Manure  
 (Lc) Grass-clover ley { ploughed up 1971 Blocks I & III  
 (Ln) Grass ley with N { 1972 Blocks I & IV

Fertilisers  
 (Fd) P, K, Mg equivalent to Dg (High PKMg)  
 (Fs) K, Mg equivalent to straw with P (Low PKMg)  
 Nitrogen to Barley 1975 Blocks I & III

No - None, N1-0.2, N2-0.4, N3-0.6, N4-0.8, N5-1.0, N6-1.19, N7-1.39 e.L.N.00

Nitrogen to Sugar beet 1975 Blocks II & IV

No - None, N1-0.3, N2-0.6, N3-0.9, N4-1.3, N5-1.6, N6-1.9, N7-2.2 cut. Now  
 0 25 50 75 100 125 150 175 kg Nitro-Chalk 25

VARIETIES

Blocks I & III Barley - Julia Sown at: 140 lb (157 kg) Date: 4 Mar  
 Blocks II & IV Sugar beet - Klein E sown at: 5 lb (5.6 kg) Date: 29 Apr

BASAL MANURING per acre (hectare)

Sugar beet - 0.9 cwt (114 kg) P<sub>2</sub>O<sub>5</sub> as Superphosphate, 1.4 Bush (180 kg) K<sub>2</sub>O as muriate of potash ploughed in in autumn. 510 lb (572 kg) compound fertiliser (0:20:20), 891 lb (100 kg) MgO as Epsom salts in the seed bed 7.3 lb (8.2 kg) B<sub>2</sub>O<sub>3</sub> as 'Solubor' in June. 2 tons (5 tonnes) Chalk IN AUTUMN

Barley - 255 lb (286 kg) compound fertiliser (0:20:20) c.i.b.

Sub-plot area

14' x 26' = 0.0064 acre (0.0026 ha)

**WOBURN ORGANIC MANURING EXPERIMENT** 12th year **STACKYARD B 1976** 204  
 Sponsor: G.E.G. Mattingly

**Winter Oats**

17	18	19	20	21	22	23	24
(3)(7)	(6)(3)	(6)(0)	(6)(0)	(6)(0)	(6)(0)	(6)(6)	(6)(6)
(9)(4)	(1)(2)(4)	(9)(0)	(9)(0)	(9)(5)	(9)(7)	(9)(7)	(9)(7)
(5)(5)	(5)(5)	(5)(5)	(5)(5)	(5)(5)	(5)(5)	(5)(5)	(5)(5)
(9)(0)	(9)(0)	(9)(0)	(9)(0)	(9)(0)	(9)(0)	(9)(0)	(9)(0)
(10)(5)	(7)(5)	(6)(5)	(6)(5)	(6)(5)	(6)(5)	(6)(5)	(6)(5)

**Barley**

9	10	11	12	13	14	15	16
1:0	2:3	4:2	2:6	6:7	0:2	2:5	5:2
6:5	6:4	6:3	4:7	5:1	6:1	4:0	0:7
(F)	(G)	(D)	(P)	(L)	(F)	(S)	(L)
7:2	5:0	7:1	3:0	4:0	5:7	7:1	3:6
3:4	7:1	0:5	1:5	3:2	4:3	3:6	4:1

**Barley**

25	26	27	28	29	30	31	32
5:7	6:3	0:3	6:4	5:0	4:0	6:4	5:0
2:0	4:7	4:2	5:2	6:3	6:7	5:2	4:1
(L)	(D)	(P)	(F)	(L)	(F)	(S)	(G)
3:1	0:1	1:6	3:0	7:4	1:3	7:1	6:3
6:4	2:5	7:5	1:7	2:1	2:5	3:0	7:2

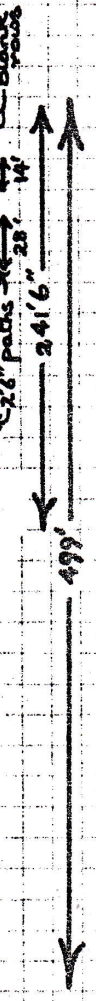
**TREATMENTS** per acre (hectare)  
 Residues of Organic Manures (applied annually 1965-71) and Ley (Sown 1965)  
 (Dg) 4 tons (10 tonnes) DM FYM, (16 tons (50 tonnes) FYM)  
 (St) 3 tons (7.5 tonnes) DM Straw  
 (Pt) 3 tons (7.5 tonnes) DM Peat  
 (Gm) Green Manure  
 (Ln) Grass-clover ley { ploughed up 1971 Blocks I & II  
 (Lc) Grass ley with N { 1972 Blocks II & IV

**Fertilisers**  
 (Fd) P, K, Mg equivalent to Dg (High P, K, Mg)  
 (Fs) K, Mg equivalent to straw with P (Low P, K, Mg)  
 Nitrogen to Barley 1975 Blocks I & II  
 No-N, N1-0-2, N2-0-4, N3-0-6, N4-0-8, N5-1-0, N6-1-19, N7-1-29 cost N on  
 0 25 50 75 100 125 150 175 kg Nitro-chalk 25  
 Residues of Nitrogen to Barley 1975 Blocks I & II W. S. Oct 1974  
 (0) -None (1) -0.2 (2) -0.4 (3) -0.6 (4) -0.8 (5) -1.0 (6) -1.19 (7) -1.39 cost N  
 0 25 50 75 100 125 150 175 kg N

**VARIETIES** (200 kg)  
 Blocks I & II Winter Oats - Peniarth Sown at 10 lb Date: 27 Oct  
 Blocks III & IV Barley - Julia Sown at 145 lb (16 kg) Date: 8 Mar

**BASAL MANURING** per acre (hectare)  
 Winter Oats - 270 lb (303 kg) compound fertiliser (0:20:20) c.o  
 Spring Barley - 260 lb (291 kg) compound fertiliser (0:20:20) c.o

**SUB-PLOT AREA**  
 14' x 20' = 0.0664 acre (0.0266 ha)



15th year STACKYARD B' 1977 201  
 Sponsor: G.E.G. Mattingly

ORGANIC MANURING EXPERIMENT

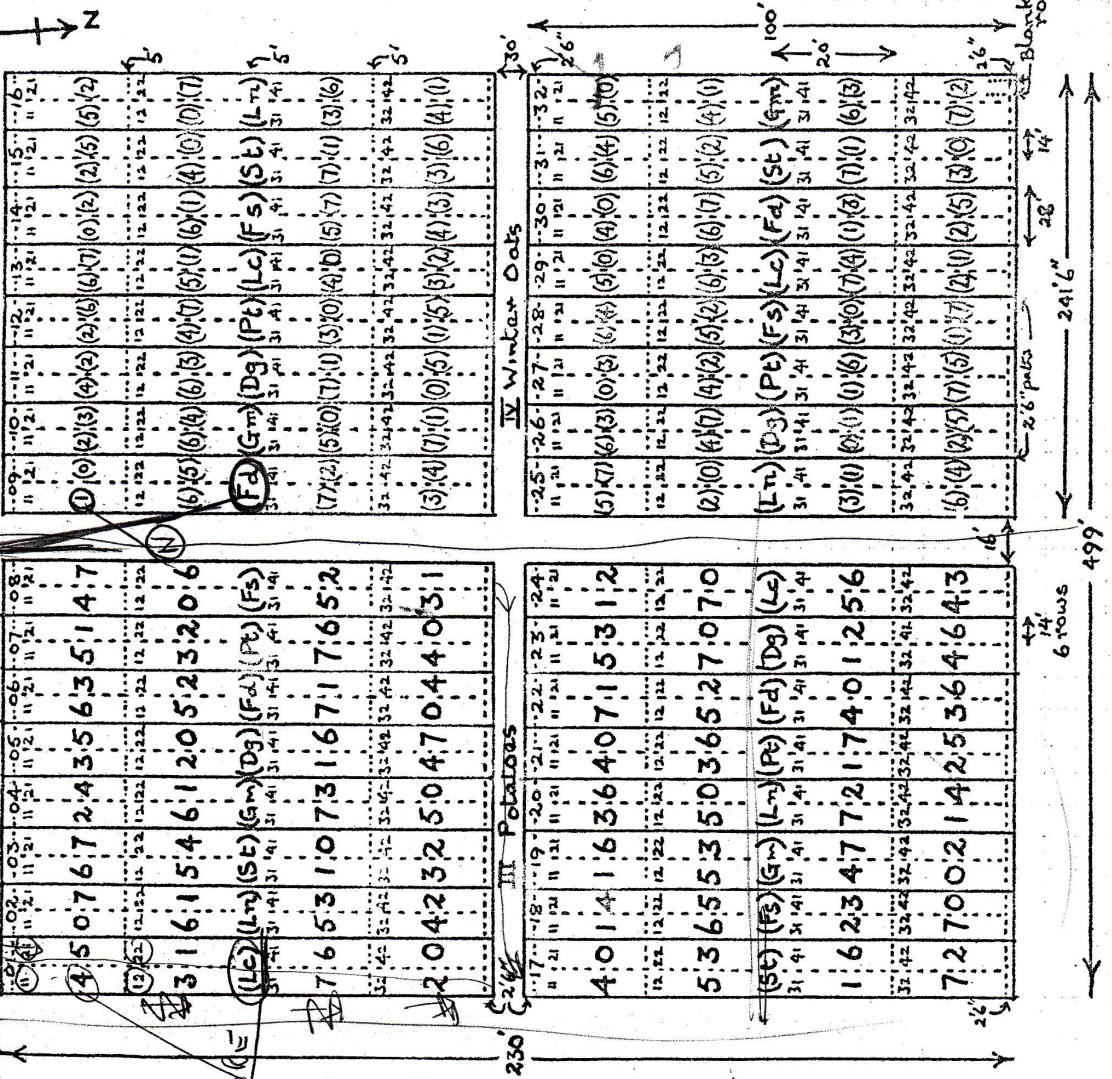
WOBURN 1977/78/79/80  
 Potatoes  
 MANURE  
 Winter Oats

TREATMENTS per acre (hectare)  
 Residues of Organic Manures (applied annually 1965-7) & lay down (1965)  
 (Dg) 4 tons (10 tonnes) (D.M.) FYM, (16 tons [40 tonnes] FYM)  
 (St) 3 tons (7.5 tonnes) (D.M.) Straw  
 (Pb) 3 tons (7.5 tonnes) (D.M.) Peat  
 (Gm) Green Manure  
 (Lc) Grass-clover ley { ploughed up 1971 Blocks I & III  
 (Lm) Grass ley with N 1972 Blocks II & IV  
 Fertilisers  
 (Fd) P, K, Mg equivalent to Dg (High PKMg)  
 (Fs) K, Mg equivalent to Straw with P (Low PKMg)  
 Nitrogen to Potatoes 1977 Blocks I & III  
 0 - None, 1-0.6, 2-1.19, 3-1.79, 4-2.39, 5-2.99, 6-3.58, 7-4.18 cwt N  
 0 75 150 225 300 375 450 525 kg N  
 Residues of Nitrogen to Barley 1976 Blocks II & IV w. Oct 1977  
 (0) - None, (1)-0.2, (2)-0.4, (3)-0.6, (4)-0.8, (5)-1.0, (6)-1.19, (7)-1.39 cwt N  
 0 25 50 75 100 125 150 175 kg N

VARIETIES  
 Blocks I & III Potatoes - Fertiland Crown Planted;  
 Blocks II & IV Winter Oats - Peniarth sown @ 180 lb (82) Date: 8 Nov

BASAL MANURING per acre (hectare)  
 Winter Oats - 260 lb (291 kg) compound fertiliser (0:20:20) C/O  
 Potatoes - 1020 lb (1123 kg) compound fertiliser (0:20:20) in autumn, 1075 lb (1205 kg) compound fertiliser (0:20:20) in the seedbed plus 336 lb (377 kg) Kieserite

SUB-PLOT AREA 14' x 20' = 0.0064 acre (0.0026 ha)



**ORGANIC MANURING EXPERIMENT 14th year STACKYARD 'B' 1978 204**  
 Sponsor: G.E.G. Mattingly

**WOBURN**  
 Winter Wheat

78/W/RN/12, I

01-02	03	04	05	06	07	08
11.2	11.2	11.2	11.2	11.2	11.2	11.2
4.5	0.7	6.7	2.4	3.5	6.3	5.1
3.4	6.1	5.4	6.1	2.0	5.2	3.2
(Lc)	(Ln)	(St)	(Gm)	(Dg)	(Fd)	(Pt)
31.41	31.41	31.41	31.41	31.41	31.41	31.41
7.6	5.3	1.0	7.3	1.6	7.1	7.6
32.42	32.42	32.42	32.42	32.42	32.42	32.42
2.0	4.2	3.2	5.0	4.7	0.4	0.3

Potatoes II

09	10	11	12	13	14	15	16
11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
6.7	5.4	3.5	5.1	1.0	7.5	5.2	2.5
1.2	1.3	1.4	3.0	2.6	1.6	3.7	7.0
(Fd)	(Gm)	(Dg)	(Pt)	(Lc)	(Fs)	(St)	(Ln)
31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41
0.5	2.7	0.6	4.7	3.7	2.0	0.6	4.1
32.42	32.42	32.42	32.42	32.42	32.42	32.42	32.42
4.3	0.6	7.2	6.2	4.5	3.4	4.1	3.6

Potatoes IV

25	26	27	28	29	30	31	32
11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
2.0	1.4	7.4	1.3	2.7	3.7	1.3	2.7
5.7	3.0	3.5	2.5	1.4	1.0	2.5	3.6
(Ln)	(Dg)	(Pt)	(Fs)	(Lc)	(Fd)	(St)	(Gm)
31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41
4.6	7.6	6.1	4.7	0.3	6.4	0.6	1.4
32.42	32.42	32.42	32.42	32.42	32.42	32.42	32.42
1.3	5.2	0.2	6.0	5.6	5.2	4.7	0.5

**TREATMENTS per acre (hectare)**  
 Residues of Organic Manures (applied annually 1965-71) 18 Ley (sown 1965)  
 (Dg) 4 tons (10 tonnes) (DM) FYM, (16 tons [40 tonnes] FYM)  
 (St) 3 tons (7.5 tonnes) (DM) Straw  
 (Pt) 3 tons (7.5 tonnes) (DM) Peat  
 (Gm) Green Manure  
 (Lc) Grass-clover ley { ploughed up 1971 Blocks I & II  
 (Ln) Grass ley with N { 1972, Blocks II & IV  
**Fertilisers**  
 (Fd) P, K, Mg equivalent to Dg (High P, K, Mg)  
 (Fs) K, Mg equivalent to Straw with P (Low P, K, Mg)  
**Nitrogen to Winter Wheat 1978 Series I & II**  
 0-None, 1-0.24, 2-0.48, 3-0.72, 4-0.96, 5-1.20, 6-1.44, 7-1.68 cut N  
 0 30 60 90 120 150 180 210 kg N  
**Nitrogen to Potatoes 1978 Series I & II**  
 0-None, 1-0.6, 2-1.19, 3-1.79, 4-2.39, 5-2.99, 6-3.58, 7-4.18 cut N  
 0 75 150 225 300 375 450 525 kg N

**WOBURN**  
 Winter Wheat

78/W/RN/12, I

01	02	03	04	05	06	07	08
11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
4.0	1.4	1.6	3.6	4.0	7.1	5.3	1.2
5.3	6.5	5.3	5.0	3.6	5.2	7.0	7.0
(St)	(Fs)	(Gm)	(Ln)	(Pt)	(Fd)	(Dg)	(Lc)
31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41
1.6	2.3	4.7	7.2	1.7	4.0	1.2	5.6
32.42	32.42	32.42	32.42	32.42	32.42	32.42	32.42
7.2	7.0	0.2	1.4	2.5	3.6	4.6	4.3

Potatoes III

17	18	19	20	21	22	23	24
11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
4.0	1.4	1.6	3.6	4.0	7.1	5.3	1.2
5.3	6.5	5.3	5.0	3.6	5.2	7.0	7.0
(St)	(Fs)	(Gm)	(Ln)	(Pt)	(Fd)	(Dg)	(Lc)
31.41	31.41	31.41	31.41	31.41	31.41	31.41	31.41
1.6	2.3	4.7	7.2	1.7	4.0	1.2	5.6
32.42	32.42	32.42	32.42	32.42	32.42	32.42	32.42
7.2	7.0	0.2	1.4	2.5	3.6	4.6	4.3

**VARIETIES**  
 Block I & III Winter Wheat - Maris Huntsman sown at: 19.0 lb (20.0 kg)  
 Block II & IV Potatoes - Pentland Crown Planted: 2.4 Apr. [Date: 14 Nov  
**BASAL MANURING per acre (hectare)**  
 Winter Wheat - 0.9 cut (14 kg) P<sub>2</sub>O<sub>5</sub> as superphosphate  
 0.48 cut (60 kg) K<sub>2</sub>O as Muriate of potash  
 Potatoes - 1080 lb (1210 kg) compound fertiliser (0:20:20  
 in autumn, 1080 lb (1210 kg) compound fertiliser  
 (0:20:20) in the seedbed plus 372 lb (417 kg)  
 Kieserite  
**SUB-PLOT AREA** 14' x 20' = 0.0064 acre (0.0026 ha)

