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85/R/EX/4 Exhaustion Land - S. Barley

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85/R/EX/4

EXHAUSTION LAND

Object: To study the residual effects of manures, applied 1856-1901, on the yield of continuous s. barley - Hoosfield.

The 130th year, s. barley.

For previous years see 'Details' 1967, 1973 and 74-84/R/EX/4.

Treatments: All combinations of:-

Whole plots

1. PLOTFERT(01) Plot numbers and manuring 1876-1901:

1-	Plot 1 none
2-	Plot 2 None
3D	Plot 3 D
4D	Plot 4 D
5N	Plot 5 N
6N*	Plot 6 N*
7NMIN	Plot 7 N P K Na Mg
8N*MIN	Plot 8 N* P K Na Mg
9P	Plot 9 P
10MIN	Plot 10 P K Na Mg

N - 96 kg N as ammonium salts
N* - 96 kg N as nitrate of soda
P - 34 kg P as superphosphate
K - 137 kg K as sulphate of potash
Na - 16 kg Na as sulphate of soda
Mg - 11 kg Mg as sulphate of magnesia
D - Farmyard manure at 35 tonnes
MIN - P K Na Mg

Sub plots

2. N Nitrogen fertilizer (kg N) as 'Nitro-Chalk' (27.5% N)
(basal until 1975, on a cyclic system since 1976):
0
48
96
144

For a fuller record of treatments see 'Details' 1967 etc.

Basal applications: Weedkillers: Clopyralid at 0.10 kg with bromoxynil and ioxynil (as 'Deloxil' at 0.70 l) in 500 l. Fungicide: Tridemorph at 0.52 kg in 200 l.

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Seed: Triumph, seed dressed triadimenol and fuberidazole, sown at 160 kg.

Cultivations, etc.: - Ploughed: 1 Oct, 1984. Spring-tine cultivated, seed sown: 18 Mar, 1985. N applied: 18 Apr. Weedkillers applied: 10 June. Fungicide applied: 28 June. Combine harvested: 23 Aug.

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

N	0	48	96	144	MEAN
PLOTFERT(01)					
1-	1.57	1.99	2.11	2.31	2.00
2-	1.38	2.35	2.31	2.42	2.12
3D	2.98	3.75	4.05	3.55	3.58
4D	2.95	3.63	3.86	4.24	3.67
5N	1.90	2.38	2.34	2.09	2.18
6N*	1.18	2.16	2.30	2.28	1.98
7NMIN	2.99	3.21	3.66	3.49	3.34
8N*MIN	2.23	3.00	3.58	3.93	3.18
9P	2.65	2.82	3.67	3.17	3.08
10MIN	1.73	3.41	3.73	3.28	3.04
MEAN	2.16	2.87	3.16	3.08	2.82

GRAIN MEAN DM% 77.2

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

N	0	48	96	144	MEAN
PLOTFERT(01)					
1-	0.46	0.73	0.83	0.82	0.71
2-	0.39	0.81	0.85	0.91	0.74
3D	0.97	1.88	2.49	2.50	1.96
4D	0.95	1.79	2.78	2.65	2.04
5N	0.65	0.91	0.91	0.86	0.83
6N*	0.52	0.83	0.92	0.77	0.76
7NMIN	0.92	1.68	2.09	2.15	1.71
8N*MIN	1.03	1.82	3.07	2.12	2.01
9P	0.92	1.40	1.99	2.14	1.61
10MIN	1.15	2.24	2.55	2.81	2.19
MEAN	0.80	1.41	1.85	1.77	1.46

STRAW MEAN DM% 80.2

SUB PLOT AREA HARVESTED 0.00728