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Yields of the Field Experiments 1992



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92/R/EX/4 Exhaustion Land - W. Wheat

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92/R/EX/4

EXHAUSTION LAND

Object: To study the residual effects of manures applied 1876-1901, and of additional phosphate applied since 1986, on the yield of continuous s. barley up to 1991, w. wheat in 1992 - Hoosfield.

The 137th year, w. wheat.

For previous years see 'Details' 1967, 1973 and 74-91/R/EX/4.

Treatments: All combinations of:-

Whole plots (P test)

1.	OLD RES	Residues of manures applied annually 1876-1901:
	0	None
	D	Farmyard manure at 35 tonnes
	N	96 kg N as ammonium salts
	P	34 kg P as superphosphate
	NPKNAMG	N and P as above plus 137 kg K as sulphate of potash, 16 kg Na as sulphate of soda, 11 kg Mg as sulphate of magnesia
2.	P	Phosphate applied annually from 1986 as superphosphate until 1987, triple superphosphate since:
	0	None
	P1	44 kg P
	P2	87 kg P
	P3	131 kg P

plus

Whole plots (K test, previously N test until 1991)

OLD RES	Residues of manures applied annually 1876-1901:
0	None
D	Farmyard manure at 35 tonnes
N*	96 kg N as nitrate of soda
PK	34 kg P as superphosphate, 137 kg K as sulphate of potash
N*PK	N. P and K as above

Experimental diary:

P test:

Residual N test:

18-Sep-91: T: Triple superphosphate at 1420 kg. 23-Sep-91: T: Triple superphosphate at 710 kg.

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Experimental diary:

All plots:

19-Sep-91 : B : Sting CT at 1.5 1 in 200 1.

20-Sep-91 : B : Ploughed, spring-tine cultivated, rolled.

23-Sep-91 : B : Rotary harrowed, Mercia drilled at 160 kg, rolled.

14-Apr-92 : B : 34.5% N applied at 560 kg.

23-Jun-92 : B : Radar at 0.50 1 and Mistral at 0.50 1 in 200 1.

31-Jul-92 : B : Combine harvested.

NOTES: (1) Yields presented for K TEST are means of four plots.

(2) Grain and straw samples were taken for chemical analysis.

P TEST

GRAIN TONNES/HECTARE

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

P	0	P1	P2	P3	Mean
OLD RES					
0	2.70	7.97	8.17	7.96	6.70
D	6.85	8.21	8.03	8.11	7.80
N	2.43	7.94	7.92	8.11	6.60
P	5.08	7.46	7.26	7.63	6.86
NPKNAMG	4.69	7.70	7.90	7.84	7.03
Mean	4.35	7.86	7.86	7.93	7.00

GRAIN MEAN DM% 87.5

STRAW TONNES/HECTARE

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

P	0	P1	P2	P3	Mean
OLD RES					
0	1.71	6.39	6.96	6.79	5.46
D	4.72	6.60	7.21	6.43	6.24
N	1.87	6.62	7.50	7.18	5.79
P	4.27	6.03	8.13	7.60	6.51
NPKNAMG	3.82	6.39	7.20	6.91	6.08
Mean	3.28	6.41	7.40	6.98	6.02

STRAW MEAN DM% 85.1

PLOT AREA HARVESTED 0.00589

92/R/EX/4

K TEST

GRAIN TONNES/HECTARE

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

OLD RES 0 D N* PK N*PK Mean 5.70 7.35 5.25 4.96 5.69 5.79

GRAIN MEAN DM% 87.8

STRAW TONNES/HECTARE

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

 OLD RES
 O
 D
 N*
 PK
 N*PK
 Mean

 5.24
 5.70
 4.90
 5.55
 5.19
 5.32

STRAW MEAN DM% 91.6

PLOT AREA HARVESTED 0.00589