

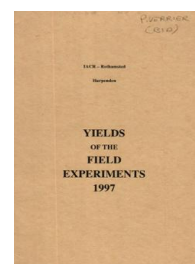
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97/R/EX/4 Exhaustion Land - W. Wheat

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97/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 since - Hoosfield.

The 142nd year, w. wheat.

For previous years see 'Details' 1977, 1973 and 74-96/R/EX/4.

Treatments: All combinations of:-

Whole plots (P test)

1. OLD RES Residues of manures applied annually 1876-1901:

O	None
D	Farmyard manure at 35 t
N	97 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 RES Residues of phosphate (kg P) applied annually from
1986, as single superphosphate in 1986 and 1987,
triple superphosphate from 1988 until 1992, none
since:

O	None
P1	44
P2	87
P3	131

plus

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

- | | |
|----------------|--|
| OLD RES | Residues of manures applied annually 1876-1901: |
| O | None |
| D | Farmyard manure at 35 t |
| N* | 97 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:

K test:

26-Sep-96 : T : Muriate of potash at 167 kg.

P test:

26-Sep-96 : T : Triple superphosphate at 319 kg.

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Experimental diary:

All plots:

05-Oct-96 : B : Ploughed.
 08-Oct-96 : B : Spring-tine cultivated, rotary harrowed, Hereward,
 dressed Beret Gold, drilled at 380 seeds per m².
 17-Mar-97 : B : Topik at 1.25 l with Sprayprover at 1.0 l in 200 l.
 07-Apr-97 : B : 34.5% N at 556 kg.
 16-Apr-97 : B : Dow Shield at 0.35 l with Deloxil at 1.5 l in 200 l.
 30-May-97 : B : Folicur at 0.5 l with Pointer at 0.5 l in 300 l.
 14-Aug-97 : B : Combine harvested.

NOTE: Samples of grain and straw were taken for chemical analysis.

P TEST

GRAIN TONNES/HECTARE

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

P RES	O	P1	P2	P3	Mean
OLD RES					
O	1.28	5.01	6.86	7.25	5.10
D	4.78	6.61	7.60	7.47	6.61
N	1.68	5.71	7.40	7.46	5.56
P	4.58	6.69	7.71	7.44	6.61
NPKNAMG	4.09	6.56	7.33	7.70	6.42
Mean	3.28	6.12	7.38	7.46	6.06

GRAIN MEAN DM% 86.9

STRAW TONNES/HECTARE

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

P RES	O	P1	P2	P3	Mean
OLD RES					
O	0.31	2.02	2.82	2.81	1.99
D	1.61	2.66	3.01	2.58	2.46
N	0.66	2.07	2.99	2.90	2.16
P	1.50	2.41	2.96	2.78	2.41
NPKNAMG	1.46	2.49	3.09	2.89	2.48
Mean	1.11	2.33	2.97	2.79	2.30

STRAW MEAN DM% 89.9

PLOT AREA HARVESTED 0.00614

97/R/EX/4

K TEST

GRAIN TONNES/HECTARE

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

OLD RES

O	6.55
D	7.18
N*	7.27
PK	7.84
N*PK	7.47

Mean	7.26
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GRAIN MEAN DM% 87.3

STRAW TONNES/HECTARE

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

OLD RES

O	2.59
D	2.84
N*	2.89
PK	3.00
N*PK	2.73

Mean	2.81
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STRAW MEAN DM% 89.3

PLOT AREA HARVESTED 0.00614