

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED  
RESEARCH

# Yields of the Field Experiments 1984

[Full Table of Content](#)



## 84/R/AG/6 Agdell - W. Wheat

### Rothamsted Research

Rothamsted Research (1985) *84/R/AG/6 Agdell - W. Wheat* ; Yields Of The Field Experiments 1984, pp 26 - 28 - DOI: <https://doi.org/10.23637/ERADOC-1-32>

84/R/AG/6

AGDELL

Object: To study, by crop yields and soil analyses, the residual values of phosphate and potash applied in the period 1848-1951 and further dressings since 1964.

The 15th year of revised scheme, w. wheat.

For previous years see 'Details' 1967 and 1973, and 74-83/R/AG/6.

Treatments: All combinations of:-

Whole plots

1. OLDRESD                      Fertilizers and organic manures applied to roots every fourth year, in the period 1848-1948:

NONE	None
PKNAMG	P K Na Mg
NPKNAMGC	N P K Na Mg C

N:	48 kg N as sulphate of ammonia
P:	41 kg P as superphosphate
K:	224 kg K as sulphate of potash
Na:	16 kg Na as sulphate of soda
Mg:	11 kg Mg as sulphate of magnesia
C:	Castor meal at 2240 kg supplying about 112 kg N

2. RN CROP                      Rotation 1848-1951 and crop in 1984:

F/WHEAT                      With fallow: Roots (turnips or swedes), s. barley, fallow, w. wheat 1848-1951. Wheat in 1984 (after fallow)

L/FALLOW                      With legume: Roots, s. barley, legume (clover or beans), w. wheat 1848-1951. Fallow in 1984.

Half plots

3. 1964RESD                      Residues of 1964 treatments:

P  
K

Quarter plots

4. PREVCROP                      Previous cropping 1958-69 on P-test half plots, 1958-70 on K-test half plots:

ARABLE	Arable or fallow
GRASS	Grass

84/R/AG/6

Sixteenth plots

5. P <sub>2</sub> O <sub>5</sub> 64	K <sub>2</sub> O 64	Rates of 1964 treatments (kg):
		P <sub>2</sub> O <sub>5</sub> to P-test    K <sub>2</sub> O to K-test
		half plots                      half plots
0	0	
500	315	
1000	630	
2000	1260	

Thirty second plots

6.	To RN CROP F/WHEAT. Residues of P <sub>2</sub> O <sub>5</sub> applied 1970-72 (kg) and in 1979, 1981 and 1983 (kg):
P <sub>2</sub> O <sub>5</sub> 723	
(0)0	None
(375)450	375 total in 1970-72, 150 in 1980, 1981 and 1983
	To RN CROP F/WHEAT. Residues of K <sub>2</sub> O applied 1973-76 (kg) and in 1979, 1981 and 1983 (kg):
K <sub>2</sub> O 763	
(0)0	None
(870)900	870 total in 1973-76, 300 in 1980, 1982 and 1983

NOTE: Treatment combinations to thirty second plots of L/FALLOW plots are not shown above.

Standard applications:

W. wheat: Manures: 'Nitro-Chalk' at 130 kg followed by 750 kg.  
 Weedkillers: Chlortoluron at 3.5 l in 250 l. Mecoprop at 2.0 kg with ioxynil at 0.25 kg and bromoxynil at 0.25 kg in 200 l. Fungicides: Prochloraz at 0.40 kg and carbendazim at 0.15 kg in 200 l. Triadimefon at 0.12 kg with captafol at 1.3 kg in 500 l. Insecticide: Pirimicarb at 0.14 kg in 250 l.

Seed: Avalon, dressed chlorfenvinphos, sown at 200 kg.

Cultivations, etc.:-

W. wheat: Heavy spring-tine cultivated: 27 Sept, 1983. Rotary harrowed, seed sown: 28 Sept. Chlortoluron applied: 29 Sept. First N applied: 16 Feb, 1984. Second N applied: 9 Apr. Prochloraz and carbendazim applied: 14 Apr. Mecoprop, ioxynil and bromoxynil applied: 19 Apr. Triadimefon and captafol applied: 13 June. Insecticide applied: 27 June. Combine harvested: 15-17 Aug.  
 Fallow: Ploughed: 29 Nov, 1983. Heavy spring-tine cultivated: 20 Mar, 1984, 27 Apr, 9 May. Spring-tine cultivated: 20 June. Rotary cultivated: 12 July.

84/R/AG/6

WHEAT P PLOTS

GRAIN TONNES/HECTARE

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

	OLDRES D	NONE		PKNAMG		NPKNAMGC	
	P205 723	(0)0	(375)450	(0)0	(375)450	(0)0	(375)450
PREVCROP	P205 64						
ARABLE	0	7.25	8.78	9.47	9.90	7.85	6.74
	500	7.90	9.19	9.80	10.39	8.25	8.29
	1000	8.83	9.87	9.78	10.44	8.53	9.31
	2000	8.76	9.06	10.32	10.32	9.21	9.71
GRASS	0	6.46	9.54	6.26	9.17	7.77	9.15
	500	7.64	8.61	9.42	10.66	6.66	8.15
	1000	8.30	9.57	9.03	9.99	7.40	8.88
	2000	8.79	9.61	10.62	10.72	6.85	8.23

GRAIN MEAN DM% 82.6

PLOT AREA HARVESTED 0.00140

WHEAT K PLOTS

GRAIN TONNES/HECTARE

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

	OLDRES D	NONE		PKNAMG		NPKNAMGC	
	K20 763	(0)0	(870)900	(0)0	(870)900	(0)0	(870)900
PREVCROP	K20 64						
ARABLE	0	9.60	9.19	10.73	10.39	10.42	10.28
	315	8.99	9.74	10.84	10.88	10.93	10.63
	630	8.94	10.03	10.53	10.17	10.42	10.28
	1260	9.26	9.24	10.94	10.51	10.38	9.79
GRASS	0	9.49	9.90	10.66	11.09	10.15	10.39
	315	9.44	9.71	10.99	10.72	10.55	11.03
	630	9.83	9.39	10.98	10.95	9.97	10.14
	1260	9.28	9.78	10.88	10.81	9.76	9.90

GRAIN MEAN DM% 82.7

PLOT AREA HARVESTED 0.00140