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Yields of the Field Experiments 1985

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85/R/AG/6 Agdell - W. Wheat

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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 16th year of revised scheme, w. wheat.

For previous years see 'Details' 1967 and 1973, and 74-84/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 (all w. wheat 1985):

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

Half plots

3. 1964RESID 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

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Sixteenth plots

5. P205 64	K20 64	Rates of 1964 treatments(kg):	
		P205 to P-test half plots	K20 to K-test half plots
0	0		
500	315		
1000	630		
2000	1260		

Thirty second plots

6. To RN CROP F/WHEAT. Residues of P205 applied 1970-72 (kg) and in 1979, 1981 and 1984 (kg):

P205 724

(0)0 None
(375)450 375 total in 1970-72, 150 in 1980, 1981 and 1984

To RN CROP F/WHEAT. Residues of K20 applied 1973-76 (kg) and in 1979, 1981 and 1984 (kg):

K20 764

(0)0 None
(870)900 870 total in 1973-76, 300 in 1980, 1982 and 1984

To RN CROP L/FALLOW. Residues of P205 applied 1970-72 (kg) and in 1980, 1982 and 1985 (kg):

P205 725

(0)0 None
(375)450 375 total in 1970-72, 150 in 1980, 1982 and 1985

To RN CROP L/FALLOW. Residues of K20 applied 1973-76 (kg) and in 1980, 1982 and 1985 (kg):

K20 765

(0)0 None
(870)900 870 total in 1973-76, 300 in 1980, 1982 and 1985

Standard applications: To P-test half plots: K20 at 300 kg. To K-test half plots: P205 at 150 kg.

Basal applications: Manures: 'Nitro-Chalk' (27.5% N) at 870 kg.
Weedkillers: Paraquat at 0.60 kg ion in 250 l. Cyanazine at 0.24 kg with mecoprop at 1.6 kg in 200 l. Fungicides: Propiconazole at 0.25 kg with carbendazim and maneb (as 'Septal' at 2.5 kg) in 200 l.

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

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Cultivations, etc.: - Test and standard P and K applied: 25 July, 1984.
 Paraquat applied: 11 Oct. Cultivated by rotary digger: 15 Oct.
 Rotary harrowed, seed sown: 6 Feb, 1985. N applied: 15 Apr.
 Cyanazine and mecoprop applied: 16 May. Fungicides applied: 3 July.
 Combine harvested: 7 Sept.

WHEAT AFTER WHEAT P PLOTS

GRAIN TONNES/HECTARE

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

	OLDRES D P205 724	NONE (0)0	(375)450	PKNAMG (0)0	(375)450	NPKNAMGC (0)0	(375)450
PREVCROP	P205 64						
ARABLE	0	4.31	5.43	6.08	6.32	4.11	4.83
	500	5.23	6.46	6.46	6.87	5.24	6.04
	1000	6.55	7.24	6.35	6.33	3.91	5.58
	2000	5.11	6.43	6.53	6.39	5.77	5.47
GRASS	0	4.25	6.29	2.46	4.78	4.23	4.99
	500	5.66	5.93	4.72	6.23	3.53	5.84
	1000	5.11	6.62	4.47	6.02	5.84	6.30
	2000	6.13	7.14	6.78	7.10	6.70	5.71

GRAIN MEAN DM% 78.4

PLOT AREA HARVESTED (OLDRES D NONE) 0.00113
 PLOT AREA HARVESTED (REMAINDER) 0.00127

WHEAT AFTER WHEAT K PLOTS

GRAIN TONNES/HECTARE

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

	OLDRES D K20 764	NONE (0)0	(870)900	PKNAMG (0)0	(870)900	NPKNAMGC (0)0	(870)900
PREVCROP	K20 64						
ARABLE	0	6.51	6.64	5.83	7.50	6.92	6.27
	315	6.05	7.02	6.91	6.49	5.94	5.87
	630	6.74	6.69	7.05	6.76	6.58	6.36
	1260	7.02	6.46	7.38	5.87	6.47	6.30
GRASS	0	5.58	7.06	6.23	6.58	6.11	6.64
	315	6.88	7.22	7.21	7.16	5.84	7.16
	630	6.82	6.73	5.99	6.60	6.23	6.49
	1260	6.73	7.18	7.72	6.83	6.43	6.41

GRAIN MEAN DM% 78.4

PLOT AREA HARVESTED (OLDRES D NONE) 0.00113
 PLOT AREA HARVESTED (REMAINDER) 0.00127

85/R/AG/6

WHEAT AFTER FALLOW P PLOTS

GRAIN TONNES/HECTARE

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

PREVCROP	OLDRESD	NONE	PKNAMG		NPKNAMGC		
	P205 725 P205 64	(0)0	(375)450	(0)0	(375)450	(0)0	(375)450
ARABLE	0	6.39	6.89	7.67	7.12	6.80	6.60
	500	6.86	7.18	7.61	7.32	6.06	7.29
	1000	7.48	7.29	7.23	7.45	8.10	7.21
	2000	7.11	7.18	7.76	7.32	6.97	6.88
GRASS	0	7.36	6.75	7.58	7.23	5.20	7.63
	500	7.22	6.40	6.48	7.34	7.03	7.51
	1000	6.68	6.73	6.94	7.62	7.47	7.74
	2000	7.02	6.78	7.01	7.21	7.81	7.39

GRAIN MEAN DM% 78.6

PLOT AREA HARVESTED (OLDRESD NONE) 0.00113
 PLOT AREA HARVESTED (REMAINDER) 0.00127

WHEAT AFTER FALLOW K PLOTS

GRAIN TONNES/HECTARE

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

PREVCROP	OLDRESD	NONE	PKNAMG		NPKNAMGC		
	K20 765 K20 64	(0)0	(870)900	(0)0	(870)900	(0)0	(870)900
ARABLE	0	5.09	6.48	8.16	6.23	7.60	7.81
	315	5.54	7.20	7.31	7.15	7.21	7.07
	630	6.84	6.82	7.33	6.50	7.77	7.34
	1260	7.08	7.13	7.05	7.93	7.49	7.12
GRASS	0	7.00	6.43	3.53	6.54	7.21	7.54
	315	6.70	5.11	5.69	6.36	7.31	7.60
	630	6.84	6.87	7.46	5.05	6.97	7.88
	1260	6.88	3.79	7.20	7.27	6.82	7.86

GRAIN MEAN DM% 77.4

PLOT AREA HARVESTED (OLDRESD NONE) 0.00113
 PLOT AREA HARVESTED (REMAINDER) 0.00127