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Yields of the Field Experiments 1978

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78/W/RN/14 Long-term Phosphate - Ley

Rothamsted Research

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78/W/RN/14

LONG TERM PHOSPHATE

Object: To study the residual effects of superphosphate on a clover/grass ley - Woburn Stackyard III.

Sponsor: G.E.G. Mattingly.

The 11th year, clover/grass ley.

For previous years see 68/B/8(t), 69/W/RN/14, 70/W/RN/14(t), 71/W/RN/14(t), 72/W/RN/14(t) and 73-77/W/RN/14.

Design: 6 blocks of 6 plots, split into 2.

Whole plot dimensions: 8.53 x 15.8.

Treatments: All combinations of:-

Whole plots

1. P205RES(73) Residues of superphosphate applied autumn 1967 and spring 1973 (kg P205):

	1967	1973	Total
0	None	None	None (Duplicate plots)
360	188	172	360
720	376	344	720
1440	753	687	1440
2160	1130	1030	2160

Sub plots

2. P205RES(72) Residues of superphosphate applied in three equal dressings 1970-72 (kg P205, total):

0
376

Basal applications: Manures: K2O at 110 kg as muriate of potash. MgO at 30 kg as Epsom Salts.

Cultivations, etc.: - K applied: 10 Jan, 1978. Mg applied: 30 Mar. Cut twice: 13 June, 12 Sept.

78/W/RN/14

1ST CUT (13/6/78) DRY MATTER TONNES/HECTARE

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

P205RES(73) P205RES(72)	0	360	720	1440	2160	MEAN
0	3.64	3.52	3.62	3.54	2.98	3.49
376	4.09	3.90	3.47	3.46	2.66	3.61
MEAN	3.86	3.71	3.54	3.50	2.82	3.55

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	P205RES(73)	P205RES(72)	P205RES(73) P205RES(72)	
REP	UNEQUAL	36	UNEQUAL	
SED	0.372		0.397	MIN REP
	0.322	0.081	0.344	MAX-MIN
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:				
P205RES(73)			0.198	MIN REP
			0.140	MAX REP

P205RES(73)
 MAX REP 0
 MAX-MIN 0 V ANY OF REMAINDER
 MIN REP ANY OF REMAINDER

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	26	0.643	18.1
BLOCK.WP.SP	31	0.343	9.7

1ST CUT MEAN DM% 20.1

78/W/RN/14

2ND CUT (12/9/78) DRY MATTER TONNES/HECTARE

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

P205RES(73)	0	360	720	1440	2160	MEAN
P205RES(72)						
0	1.92	1.93	2.12	1.98	1.91	1.96
376	2.27	2.06	2.04	1.83	1.66	2.02
MEAN	2.10	1.99	2.08	1.91	1.78	1.99

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	P205RES(73)	P205RES(72)	P205RES(73) P205RES(72)	
REP	UNEQUAL	36	UNEQUAL	
SED	0.203		0.228	MIN REP
	0.176	0.060	0.198	MAX-MIN
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:				
P205RES(73)			0.148	MIN REP
			0.105	MAX REP

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	26	0.351	17.6
BLOCK.WP.SP	31	0.256	12.9

2ND CUT MEAN DM% 21.7

78/W/RN/14

TOTAL OF 2 CUTS DRY MATTER TONNES/HECTARE

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

P205RES(73) P205RES(72)	0	360	720	1440	2160	MEAN
0	5.56	5.45	5.74	5.52	4.88	5.45
376	6.37	5.97	5.51	5.29	4.32	5.64
MEAN	5.96	5.71	5.62	5.40	4.60	5.54

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	P205RES(73)	P205RES(72)	P205RES(73) P205RES(72)	
REP	UNEQUAL	36	UNEQUAL	
SED	0.545		0.583	MIN REP
	0.472	0.120	0.505	MAX-MIN
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:				
P205RES(73)			0.293	MIN REP
			0.207	MAX REP

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	26	0.944	17.0
BLOCK.WP.SP	31	0.508	9.2

TOTAL OF 2 CUTS MEAN DM% 2.8

PLOT AREA HARVESTED 0.00145