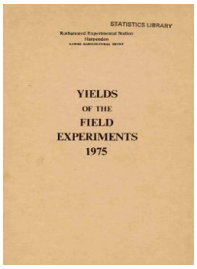
ROTHAMSTED RESEARCH

Yields of the Field Experiments 1975

Full Table of Content



75/ R/CS/13 - N Levels to Old Grass - Old Grass

Rothamsted Research

Rothamsted Research (1976) *75/ R/CS/13 - N Levels to Old Grass - Old Grass ;* Yields Of The Field Experiments 1975, pp 150 - 152 **- DOI: https://doi.org/10.23637/ERADOC-1-141**

75/R/CS/13

N LEVELS TO OLD GRASS

Object: To study the effects of a range of nitrogen rates on yield and botanical composition of very old permanent pasture given a single dressing of P and K annually. N fixed by legumes is estimated and the effect of treatments on nutrients available in the soil is also studied - Park Grass Old Plot 6.

Sponsor: A.E. Johnston.

The eleventh year, old grass.

For previous years see 65/C/33(t), 66/C/14, 67/C/10(t), 68/C/8(t), 69/R/CS/13(t), 70/R/CS/13(t), 71/R/CS/13, 72/R/CS/13(t) and 73-74/R/CS/13.

Design: 4 randomised blocks of 10 plots.

Whole plot dimensions: 1.83 x 10.1.

Treatments: Fertiliser nitrogen (kg N-total per annum applied in four equal dressings as 'Nitro-Chalk'):

	TOTAL N
None (sprayed with mecoprop to control legumes, two plots per block)	0(S)
None (two plots per block)	0
75	75
150	150
225	225
300	300
375	375
450	450

NOTE: Mecoprop applied as 'Clovotox' at 8.4 l in 280 l on 18 Apr.

Basal applications: 34 kg P as superphosphate, 224 kg K as potassium sulphate, 11 kg Mg as magnesium sulphate.

Cultivations, etc.:- Basal P, K and Mg applied: 9 Dec, 1974. N applied: 18 Mar, 1975, 6 June and 8 Aug. Cut: 5 June, 7 Aug and 20 Oct.

https://doi.org/10.23637/ERADOC-1-141

75/R/CS/13

1ST CUT (20/5/75) DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

TOTAL N	0(S)	0	75	150	225	300	375	450	MEAN
	0.58	2.27	2.39	2.93	3.78	4.55	5.12	5.31	2.98

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

TABLE	TOTAL N
SED	0.154 (1)
	0.188 (2)
	0.218 (3)

(1) 0(S) V 0
(2) 0(S) OR 0 AGAINST ANY ONE OF THE REMAINDER
(3) ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.308	10.3

1ST CUT MEAN DM% 20.9

2ND CUT (8/7/75) DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

TOTAL N	0(S)	0	75	150	225	300	375	450	MEAN
	0.53	1.47	1.31	1.58	2.06	2.20	2.41	2.39	1.60

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

TABLE	TOTAL N
SED	0.145 (1)
	0.177 (2)
	0.205 (3)

(1) 0(S) V 0
(2) 0(S) OR 0 AGAINST ANY ONE OF THE REMAINDER
(3) ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.289	13.1

2ND CUT MEAN DM% 20.9

https://doi.org/10.23637/ERADOC-1-141

75/R/CS/13

3RD CUT (20/10/75) DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

TOTAL N	0(S)	0	75	150	225	300	375	450	MEAN
	0.33	0.59	0.84	1.12	1.58	1.77	1.96	1.99	1.11

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

TABLE	TOTAL N
SED	0.066 (1)
	0.081 (2)
	0.094 (3)

(1) 0(S) V 0
(2) 0(S) OR 0 AGAINST ANY ONE OF THE REMAINDER
(3) ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.132	12.0

3RD CUT MEAN DM% 23.6

TOTAL OF 3 CUTS DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

TOTAL N	0(S)	0	75	150	225	300	375	450	MEAN
	1.44	4.33	4.55	5.63	7.42	8.52	9.49	9.68	5.68

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

TABLE	TOTAL N
SED	0.186 (1)
	0.227 (2)
	0.263 (3)

(1) 0(S) V 0
(2) 0(S) OR 0 AGAINST ANY ONE OF THE REMAINDER
(3) ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	29	0.371	6.5

TOTAL OF 3 CUTS MEAN DM% 21.8

PLOT AREA HARVESTED 0.00086

https://doi.org/10.23637/ERADOC-1-141