

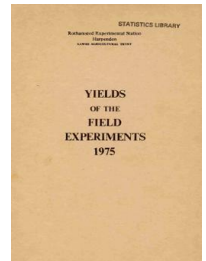
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1975

[Full Table of Content](#)



75/ R/CS/123 - Effects of Viruses - Ryegrass, Clover

Rothamsted Research

Rothamsted Research (1976) 75/ R/CS/123 - *Effects of Viruses - Ryegrass, Clover* ; Yields Of The Field Experiments 1975, pp 209 - 212 - DOI: <https://doi.org/10.23637/ERADOC-1-141>

75/R/CS/123

EFFECTS OF VIRUSES

Object: To study the effects of virus infection on yield and persistence of ryegrass and red clover in pure and mixed stands - Garden Plot 14.

Sponsors: A.J. Cockbain, R.T. Plumb.

The third year, red clover and Italian ryegrass.

For previous years see 73-74/R/CS/123.

Design: 4 randomised blocks of 8 plots split into 2.

Whole plot dimensions: 3.35 x 1.22.

Treatments: All combinations of:-

Whole plots: 1. Crop and inoculation with virus in 1973:	CROP VIR
Red clover uninoculated	CLOVER/O
Italian ryegrass uninoculated	GRASS/O
Red clover and Italian ryegrass (mixed within rows) uninoculated	CLOGR/O
Red clover inoculated with Pea Mosaic Virus (PMV)	CLOVER/P
Italian ryegrass inoculated with Ryegrass Mosaic Virus (RMV)	GRASS/R
Red clover and Italian ryegrass (mixed) inoculated with PMV	CLOGR/P
Red clover and Italian ryegrass (mixed) inoculated with RMV	CLOGR/R
Red clover and Italian ryegrass (mixed) inoculated with PMV and RMV	CLOGR/PR

NOTE: Inoculation with PMV was unsuccessful.

Sub plots: 2. Aldicarb (kg) after each cut:	ALDICARB
None	0
10	10

Basal applications: Manures: (25:0:16) at 270 kg to grass plots.

Cultivations, etc.: - NK applied: 19 June, 1975. Cut twice: 9 June, 25 July.

NOTES: (1) Mites (*Abacarus hystrix*) were counted on 28 Apr and 23 July on grass plots.

(2) Grass was scored for Ryegrass Mosaic Virus on 20 May.

75/R/CS/123

1ST CUT (6/6/75) DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

ALDICARB	0	10	MEAN
CROP VIR			
CLOVER/O	8.37	8.45	8.41
GRASS/O	8.25	7.63	7.94
CLOGR/O	9.53	8.77	9.15
CLOVER/P	8.35	8.31	8.33
GRASS/R	8.08	7.36	7.72
CLOGR/P	9.40	8.76	9.08
CLOGR/R	8.84	8.93	8.89
CLOGR/PR	8.92	8.57	8.75
MEAN	8.72	8.35	8.53

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

TABLE	CROP VIR	ALDICARB	CROP VIR ALDICARB
REP	8	32	4
SED	0.440	0.160	0.544
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:			
CROP VIR			0.451

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

STRATUM	DF	SE	CV%
BLOCK.WP	21	0.623	7.3
BLOCK.WP.SP	24	0.638	7.5

1ST CUT MEAN DM% 25.2

75/R/CS/123

2ND CUT (25/7/75) DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

ALDICARB	0	10	MEAN
CROP VIR			
CLOVER/O	3.14	3.89	3.51
GRASS/O	1.89	1.46	1.68
CLOGR/O	3.04	3.09	3.06
CLOVER/P	3.27	3.76	3.51
GRASS/R	1.57	1.65	1.61
CLOGR/P	2.96	2.92	2.94
CLOGR/R	3.30	3.10	3.20
CLOGR/PR	2.76	3.27	3.01
MEAN	2.74	2.89	2.82

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

TABLE	CROP VIR	ALDICARB	CROP VIR ALDICARB
REP	8	32	4
SED	0.378	0.122	0.449
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:			
CROP VIR			0.344

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

STRATUM	DF	SE	CV%
BLOCK.WP	21	0.535	19.0
BLOCK.WP.SP	24	0.486	17.3

2ND CUT MEAN DM% 26.3

75/R/CS/123

TOTAL OF 2 CUTS DRY MATTER TONNES/HECTARE

*** TABLES OF MEANS ***

ALDICARB	0	10	MEAN
CROP VIR			
CLOVER/O	11.51	12.34	11.92
GRASS/O	10.14	9.10	9.62
CLOGR/O	12.56	11.86	12.21
CLOVER/P	11.63	12.06	11.84
GRASS/R	9.65	9.01	9.33
CLOGR/P	12.36	11.68	12.02
CLOGR/R	12.14	12.03	12.09
CLOGR/PR	11.68	11.84	11.76
MEAN	11.46	11.24	11.35

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

TABLE	CROP VIR	ALDICARB	CROP VIR ALDICARB
REP	8	32	4
SED	0.695	0.248	0.854
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:			
CROP VIR			0.702

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

STRATUM	DF	SE	CV%
BLOCK.WP	21	0.982	8.7
BLOCK.WP.SP	24	0.993	8.8

TOTAL OF 2 CUTS MEAN DM% 26.0

PLOT AREA HARVESTED 0.00011