

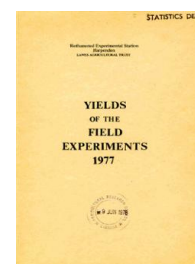
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED  
RESEARCH

# Yields of the Field Experiments 1977

[Full Table of Content](#)



## 77/R/CS/162 Times of Applying Acaricide - Ryegrass

### Rothamsted Research

Rothamsted Research (1978) *77/R/CS/162 Times of Applying Acaricide - Ryegrass ; Yields Of The Field Experiments 1977*, pp 202 - 206 - DOI: <https://doi.org/10.23637/ERADOC-1-29>

77/R/CS/162

# TIMES OF APPLYING ACARICIDE

Object: To study the effects of times of applying the acaricide endosulfan, on the incidence of ryegrass mosaic virus and its mite vectors and on the yield of ryegrass - Claycroft.

Sponsors: R.W. Gibson, R.T. Plumb.

The third year, ryegrass.

For previous years see 75-76/R/CS/162.

Design: Originally 4 randomised blocks of 18 plots - 9 plots Italian ryegrass and 9 plots perennial ryegrass. In 1977 yields were taken only from plots sown to Italian ryegrass. Design: 4 randomised blocks of 9 plots with CULTIVTN on blocks.

Whole plot dimensions: 4.27 x 6.10.

Treatments: All combinations of:-

## Blocks

1. CULTIVTN      Cultivations to existing, failing, sward before resowing Italian ryegrass (S22) in autumn 1976:
  - NONE      Seed sown into undisturbed sward, heavy spring-tine in and rolled
  - MANY      Sward destroyed before sowing by many cultivations, seed sown, harrowed in and rolled

## Plots

2. ACA TIME(757) Times of applying endosulfan 1975-1977

	1975	1976	1977
- - -	Never	Never	Never
- JN JL	Never	June	July (duplicated)
JL JL JL	July	July	July
SE AU -	September	August	Never
OC - -	October	Never	Never
OC NO -	October	November	Never
ALL	July-October	June-November	July
POST-CUT	July	June-November	July

NOTE: Endosulfan was applied at 0.35 kg in 430 l on 21 July, 1977.

Basal applications: Manures: (25:0:16) at 800 kg in spring, at 600 kg after each of the first two cuts.

Seed: S.22, sown at 36 kg.

77/R/CS/162

Cultivations, etc.:-

All blocks: NK applied: 4 Mar, 1977, 1 June, 26 July. Cut three times:  
25 May, 14 July, 24 Nov.

CULTIVTN NONE blocks only: Seed sown, heavy spring-tine cultivated twice:  
21 Sept, 1976. Rolled: 22 Sept.

CULTIVTN MANY blocks only: Deep-tine cultivated twice, heavy spring-tine  
cultivated: 14 Sept, 1976. Rotary cultivated, spring-tine cultivated,  
harrowed: 20 Sept. Sown, harrowed: 21 Sept.

NOTE: Mites were counted and virus scores made at intervals during the  
season.

1ST CUT (25/5/77) DRY MATTER TONNES/HECTARE

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

CULTIVTN	NONE	MANY	MEAN
ACA TIME(757)			
- - -	5.32	4.74	5.03
- JN JL	5.49	5.06	5.28
JL JL JL	5.09	4.59	4.84
SE AU -	5.10	4.27	4.68
OC - -	5.38	4.50	4.94
OC NO -	5.59	4.97	5.28
ALL	5.74	5.00	5.37
POST-CUT	5.44	5.18	5.31
MEAN	5.40	4.82	5.11

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

TABLE	ACA TIME(757)	CULTIVTN*	
		ACA TIME(757)	
SED	0.292	0.413	MIN REP
	0.253	0.358	MAX-MIN

\* WITHIN SAME LEVEL OF CULTIVTN ONLY

ACA TIME  
MAX-MIN - JN JL V ANY OF REMAINDER  
MIN REP ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP.SP	18	0.413	8.1
1ST CUT MEAN DM%	15.2		

77/R/CS/162

2ND CUT (14/7/77) DRY MATTER TONNES/HECTARE

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

CULTIVTN	NONE	MANY	MEAN
ACA TIME(757)			
- - -	4.91	4.78	4.84
- JN JL	4.94	5.20	5.07
JL JL JL	4.71	5.00	4.86
SE AU -	4.58	5.14	4.86
OC - -	5.07	4.79	4.93
OC NO -	4.70	4.60	4.65
ALL	4.47	5.28	4.88
POST-CUT	4.68	4.98	4.83
MEAN	4.78	5.00	4.89

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

TABLE	ACA TIME(757)	CULTIVTN*	
		ACA TIME(757)	
SED	0.267	0.378	MIN REP
	0.231	0.327	MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP.SP	18	0.378	7.7
2ND CUT MEAN DM%	19.5		

77/R/CS/162

3RD CUT (24/11/77) DRY MATTER TONNES/HECTARE

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

CULTIVTN ACA TIME(757)	NONE	MANY	MEAN
- - -	3.62	3.74	3.68
- JN JL	3.67	3.86	3.76
JL JL JL	3.77	3.96	3.86
SE AU -	3.50	3.36	3.43
OC - -	4.23	3.70	3.97
OC NO -	3.58	4.07	3.83
ALL	3.64	4.16	3.90
POST-CUT	3.80	3.98	3.89
MEAN	3.72	3.85	3.79

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

TABLE	ACA TIME(757)	CULTIVTN*	
		ACA TIME(757)	
SED	0.371	0.524	MIN REP
	0.321	0.454	MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP.SP	18	0.524	13.8
3RD CUT MEAN DM%	19.9		



77/R/CS/162

TOTAL OF 3 CUTS DRY MATTER TONNES/HECTARE

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

CULTIVTN	NONE	MANY	MEAN
ACA TIME(757)			
- - -	13.84	13.26	13.55
- JN JL	14.10	14.12	14.11
JL JL JL	13.57	13.55	13.56
SE AU -	13.17	12.77	12.97
OC - -	14.68	12.99	13.84
OC NO -	13.88	13.64	13.76
ALL	13.85	14.45	14.15
POST-CUT	13.93	14.13	14.03
MEAN	13.90	13.67	13.79

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

TABLE	ACA TIME(757)	CULTIVTN*
		ACA TIME(757)
SED	0.617	0.873 MIN REP
	0.534	0.756 MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP.SP	18	0.873	6.3
TOTAL OF 3 CUTS MEAN DM%	18.2		
PLOT AREA HARVESTED	0.00062		