

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 1971

[Full Table of Content](#)



### 71/R/CS/41 Cultivations and Soil Invertebrates - Old Grass, New Grass

#### Rothamsted Research

Rothamsted Research (1972) *71/R/CS/41 Cultivations and Soil Invertebrates - Old Grass, New Grass* ; Yields Of The Field Experiments 1971, pp 170 - 171 - DOI:  
<https://doi.org/10.23637/ERADOC-1-97>

71/R/CS/41

CULTIVATIONS AND SOIL INVERTEBRATES

Object: To study the effects of cultivation on yields of pasture and on populations of soil animals - Road Piece.

The third year, old grass, new grass.

For previous years see 69/R/CS/41(t) and 70/R/CS/41(t).

Whole plot dimensions: 6.40 x 7.32. Area harvested: 0.00074.

Cultivations, etc.: Basal PK applied: 19 Oct, 1970. AMR plots ploughed: 23 Oct. SMR and SFR plots ploughed: 16 Feb, 1971. All plots rolled: 4 Mar. Basal NK applied: 26 Mar. Discd AMR and SMR plots 4 times, SFR plots twice, harrowed, seed hand sown at 22.4 kg and covered in with weeder: 7 Apr. Sown plots rolled: 8 Apr. SFR, SMR and AMR plots topped: 22 June. SFR, SMR and AMR plots cut once: 13 Sept, other plots 3 times: 20 May, 8 July, 13 Sept. NK applied to all plots except SFR, SMR and AMR: 26 May, 15 July, 16 Sept and to SFR, SMR and AMR plots: 16 Sept only. Seeds mixture for 1971: 1.68 kg British certified Aberystwyth S48 Timothy, 3.36 kg British certified Aberystwyth S215 Meadow Fescue, 0.56 kg New Zealand Grassland Huia certified motherseed big white clover.

NOTE: Soil cores were taken for total fauna on 23 Feb, 24 Mar, 10 May, 19 May, 25 June, 13 Aug, 3 Nov. Quadrats (61 cm square) were sampled on each plot for earthworms on 14 Apr, 10 May, 14 Oct.

Standard errors per plot. Dry matter, tonnes/hectare:

1st cut:	0.629 or 14.6% (12 d.f.)
2nd cut:	0.447 or 13.8% (12 d.f.)
3rd cut:	0.450 or 17.8% (21 d.f.)
Total of 3 cuts:	1.029 or 10.6% (12 d.f.)

71/R/CS/41

SUMMARY OF RESULTS

DRY MATTER: TONNES/HECTARE

	O*	SF	SM	AM	Mean	SFR	SMR	AMR	Mean
	(±0.222)	(±0.314)							
1st cut	4.35	4.46	4.54	3.78	4.29				
	(±0.158)	(±0.224)							
2nd cut	2.89	3.46	3.52	3.43	3.24				
	(±0.159)	(±0.225)				(±0.225)			
3rd cut	2.20	1.80	2.49	2.08	2.14	2.92	3.32	3.21	2.53**
	(±0.364)	(±0.515)							
Total of 3 cuts	9.43	9.72	10.56	9.30	9.69				

Mean D.M. %: 1st cut: 20.0  
 2nd cut: 20.9  
 3rd cut: 26.4  
 Total of 3 cuts: 22.4

\* Duplicated level  
 \*\* General mean