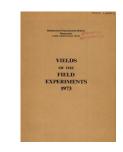
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Yields of the Field Experiments 1973



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Rothamsted Research

Rothamsted Research (1974) 73/R/CS/41 - Cultivations & Soil Invertebrates - Old Grass, New Grass; Yields Of The Field Experiments 1973, pp 203 - 205 - **DOI**:

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73/R/CS/41

CULTIVATIONS AND SOIL INVERTEERATES

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

Sponsor: C.A. Edwards.

The fifth year, old grass, new grass.

For previous years see 69/R/CS/41(t), 70/R/CS/41(t) and 71-72/R/CS/41.

Design: 4 blocks of 8 plots randomisation restricted.

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

Treatments: Cultivations and reseeding:	CULTIVIN
No treatments, to old grass (two plots per block)	0
Grass ploughed up:-	
In spring 1969, reseeded after fewest	
cultivations needed to produce a seedhed	SF
In spring 1969, reseeded after many seedbed	
cultivations	SM
In autumn 1969, reseeded spring 1970 after	
many seedbed cultivations	AM
Every spring since 1969, reseeded each year	
after fewest cultivations needed to	
produce a seedbed	SFR
Every spring since 1969, reseeded each year	
after many seedbed cultivations	SMR
Every autumn since 1969, reseeded every following	
spring after many seedbed cultivations	AMR

Seeds mixture for 1973: Parts by weight: New Zealand White Clover, 1; S 48 Timothy, 3; S 215 Meadow Fescue, 6. Mixture sown at 22 kg.

Pasal applications: Manures: (0:14:28) at 500 kg in autumn, (25:0:16) at 440 kg in spring, (25:0:16) at 220 kg after each cut except the last.

73/R/CS/41

Cultivations, etc .: - Basal PK applied: 17 Nov, 1972. AMR plots ploughed: 11 Dec. SMR and SFR plots ploughed: 21 Feb, 1973. Basal NK fertiliser applied: 21 Feb. Disced AMR and SMR plots four times, SFR plots twice: 27 Mar. Power harrowed all plots to be sown: 28 Mar. Seed hand sown and harrowed in: 29 Mar. AMR, SMR and SFR plots sprayed with benazolin with 2, 4-DB and MCPA ('Legume Extra' 7.0 1 in 220 1): 31 May. AMR, SMR and SFR plots cut twice: 4 July and 12 Sept, other plots cut three times: 22 May, 4 July and 12 Sept. MK applied to all plots except AMR, SMR and SFR: 25 May and to all plots: 4 July.

NOTE: Soil cores were taken for total fauna and quadrats were sampled on each plot for earthworms.

73/R/CS/41

TABLES OF MEANS

DRY MATTER: TONNES/HECTARE

	CULTIVIN					CULTIVIN			
	0*	SF	SIM	AM	Mean	SIFR	SMR	AMR	Mean
1st cut 2nd cut 3rd cut	1.80	3.28 1.98 2.53	3.42 2.33 2.59	4.66 1.95 2.41	3.87 1.97 2.49	1.96 4.03	1.93 4.16	1.74 4.26	1.94* 3.11*
Total of 3 cuts	8.24	7.79	8.34	9.03	8.33				

STANDARD ERRORS OF DIFFERENCES

CULTIVIN

	O v Any of remainder		Between	remainder
1st cut 2nd cut 3rd cut Total of	0.280 0.337 0.204		0.	.323 .390 .235
3 cuts	0.327		0.	.377
Mean D.M.	% 1st cut 2nd cut 3rd cut Total of 3 cuts	16.5 23.5 33.4 24.5		

^{*} Grand mean