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76/R/CS/131 Effects of Earthworm Destruction - Old Grass

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76/R/CS/131

EFFECTS OF EARTHWORM DESTRUCTION

Object: To study the effects of eliminating earthworms on yield and soil structure of old grass - Appletree.

Sponsor: J.R. Lofty.

The third year, old grass.

For previous years see 74-75/R/CS/131.

Design: 4 blocks of 4 plots.

Whole plot dimensions: 7.62 x 7.62.

Treatments: Chemicals:-

CHEMICAL

NONE	None (2 plots per block)
BENOMYL	Benomyl at 5 kg in 1974 and at 2.5 kg Sept, 1976
CHLORDAN	Chlordane at 10 kg in 1974 only

Basal applications: Manures: (0:14:28) at 500 kg in winter, (25:0:16) at 440 kg in spring and at 220 kg after the first cut. Weedkiller: Mecoprop at 2.7 l in 220 l.

Cultivations, etc.:- PK applied: 28 Nov, 1975. NK applied: 25 Feb, 1976, 21 May. Weedkiller applied: 19 Mar. Cut three times: 20 May, 5 July, 2 Nov.

NOTE: Earthworm populations were assessed in April.

1ST CUT (20/5/76) DRY MATTER TONNES/HECTARE

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

CHEMICAL	NONE	BENOMYL	CHLORDAN	MEAN
	5.34	5.56	5.19	5.36

TABLE	CHEMICAL
-----	-----
SED	0.294 MIN REP
	0.255 MAX-MIN

CHEMICAL
 MAX-MIN NONE ANY OF REMAINDER
 MIN REP ANY OF REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.416	7.8
1ST CUT MEAN DM%	19.8		

76/R/CS/131

2ND CUT (5/7/76) DRY MATTER TONNES/HECTARE

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

CHEMICAL	NONE	BENOMYL	CHLORDAN	MEAN
	0.99	0.98	0.86	0.96

TABLE	CHEMICAL
SED	0.168 MIN REP 0.145 MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.237	24.8

2ND CUT MEAN DM% 40.7

3RD CUT (2/11/76) DRY MATTER TONNES/HECTARE

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

CHEMICAL	NONE	BENOMYL	CHLORDAN	MEAN
	2.05	1.90	1.61	1.90

TABLE	CHEMICAL
SED	0.253 MIN REP 0.219 MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.357	18.8

3RD CUT MEAN DM% 14.2

TOTAL OF 3 CUTS DRY MATTER TONNES/HECTARE

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

CHEMICAL	NONE	BENOMYL	CHLORDAN	MEAN
	8.38	8.45	7.65	8.22

TABLE	CHEMICAL
SED	0.439 MIN REP 0.381 MAX-MIN

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.621	7.6

TOTAL OF 3 CUTS MEAN DM% 24.0

PLOT AREA HARVESTED 0.00046