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71/R/CS/42 Effect of Invertebrates on Yield - Old Grass

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71/R/CS/42

EFFECT OF INVERTEBRATES ON YIELD

Object: To study the effect of a range of invertebrate-killing chemicals on the yield of old grass - Road Piece.

The third year, old grass.

For previous years see 69/R/CS/42(t) and 70/R/CS/42(t).

Whole plot dimensions: 2.74 x 6.40. Area harvested: 0.00065.

Basal applications: 505 kg (0:14:28) in winter, 440 kg (25:0:16) in spring, 224 kg (25:0:16) after each cut except the last.

Cultivations, etc.: PK applied: 19 Oct, 1970. NK applied: 26 Mar, 1971.

Cut 3 times: 20 May, 8 July, 14 Sept. NK applied after first two cuts. Chemical treatments applied:

Chlorbenseide: 15 Jan, 5 Mar, 7 Apr, 12 May, 11 June, 16 July,
23 Aug, 9 Dec.

Menazon: 14 Jan, 4 Mar, 6 Apr, 11 May, 10 June, 15 July,
23 Aug, 9 Dec.

Dimethoate: 14 Jan, 5 Mar, 7 Apr, 11 May, 11 June, 16 July,
23 Aug, 9 Dec.

Parathion: 15 Jan, 5 Mar, 7 Apr, 12 May, 11 June, 19 July,
23 Aug.

Metaldehyde bait: 11 May, 10 June, 15 July, 23 Aug, 9 Dec.

Metaldehyde spray: 14 Jan, 4 Mar, 6 Apr.

Aldrin: 8 Dec, 1971.

Chlordane: 8 Dec, 1971.

NOTES: (1) Formalin and C14421 were not applied in 1971.

(2) Samples were taken for botanical analysis. Samples for fauna were taken throughout the year.

ERRATUM, 69/R/CS/42:- Treatments - 'Parathion bran bait - parathion at 0.8 oz (against leatherjackets)' and not as shown, (0.8 oz per acre = 56 g per hectare).

71/R/CS/42

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

1st cut: 0.508 or 9.8% (33 d.f.)
 2nd cut: 0.259 or 8.4% (33 d.f.)
 3rd cut: 0.310 or 16.7% (33 d.f.)
 Total of 3 cuts: 0.662 or 6.5% (33 d.f.)

SUMMARY OF RESULTS

DRY MATTER: TONNES/HECTARE

| | 1ST CUT | 2ND CUT | 3RD CUT | TOTAL OF 3 CUTS |
|-------|----------------------|----------------------|----------------------|-----------------------|
| OS | 5.06 | 2.99 | 1.86 | 9.92 |
| FCB | 5.07 | 3.05 | 1.79 | 9.91 |
| FMZ | 5.27 | 3.06 | 1.69 | 10.03 |
| F3 | 4.91 | 3.03 | 2.07 | 10.01 |
| O | 5.22 | 3.36 | 1.83 | 10.40 |
| SFO | 5.81 (± 0.254) | 2.97 (± 0.129) | 1.81 (± 0.155) | 10.59 (± 0.331) |
| SL | 5.17 | 3.10 | 1.90 | 10.16 |
| SN | 4.94 | 3.07 | 1.83 | 9.84 |
| SMT | 5.51 | 3.18 | 1.73 | 10.43 |
| S3 | 5.36 | 3.03 | 1.94 | 10.34 |
| S4 | 4.82 | 2.89 | 1.93 | 9.65 |
| F3+S4 | 5.21 | 3.17 | 1.93 | 10.31 |
| Mean | 5.20 | 3.08 | 1.86 | 10.13 |

Mean D.M. %: 1st cut: 20.3
 2nd cut: 20.1
 3rd cut: 25.0
 Total of 3 cuts: 20.8