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Yields of the Field Experiments 1974

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74/R/CS/107 Varieties and Pathogens - Ryegrass

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74/R/CS/107

VARIETIES AND PATHOGENS

Object: To compare the yields and susceptibilities to diseases of a range of Italian and Perennial Ryegrass varieties - Long Hoos IV.

Sponsors: R.T. Plumb, J.F. Jenkyn.

The second year, Italian and perennial ryegrass.

For previous year see 73/R/CS/107.

Design: 2 blocks of 2 whole plots split into 5 (Italian), 6 (Perennial) sub plots.

Whole plot dimensions: Italian - 13.1 x 6.10, perennial - 15.8 x 6.10.

Sub plot area harvested: 0.00056.

Treatments:-

Whole plots: 1. Ryegrass type:

| | TYPE |
|-----------|-----------|
| Italian | Italian |
| Perennial | Perennial |

Sub plots: 2. Varieties and sowing time:

VARIETY

Italian varieties (sown autumn 1972 except where stated):

| | |
|--------------------------|---------|
| Asso, sown spring 1973 | Asso(S) |
| Grasslands Manawa | Manawa |
| R.V.P. | RVP |
| R.V.P., sown spring 1973 | RVP(S) |
| S.22 | S.22 |

Perennial varieties (all sown autumn 1972):

| | |
|-----------------|----------|
| Endura | Endura |
| Glasnevin Leafy | Glasnevi |
| Gremie | Gremie |
| Monta C.I.V. | Monta |
| Reveille | Reveille |
| S.24 | S.24 |

Basal applications: Manures: (0:14:28) at 900 kg. (25:0:16) at 300 kg in spring and after each cut except the last.

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Cultivations, etc.:-- PK applied: 7 Mar, 1974. NK applied: 7 Mar, 7 June,
5 Aug. Cut: 5 June, 31 July and 10 Jan, 1975.

- NOTES: (1) Counts of mites (*Abacarus hystrix*) were made on 19 July,
16 Sept, 21 Oct.
(2) Assessments of infection by Ryegrass Mosaic Virus
were made on 21 May, 4 June, 25 July.
(3) Observations were made on foliar diseases.

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

| | |
|------------------|------------------------|
| 1st cut: | 0.334 or 4.2% (9 d.f.) |
| 2nd cut: | 0.304 or 8.5% (9 d.f.) |
| 3rd cut: | 0.159 or 7.3% (9 d.f.) |
| Total of 3 cuts: | 0.436 or 3.2% (9 d.f.) |

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TABLES OF MEANS

DRY MATTER: TONNES/HECTARE

| TYPE VARIETY Asso(S) | Manawa | Italian RVP | RVP(S) | S22 | Perennial | | | | Reveille | S24 | Mean |
|---------------------------------|--------|----------------|--------|-------|-----------|----------|--------|-------|----------|-------|-------|
| | | | | | Endura | Glasnevi | Gremie | Monta | | | |
| 1ST CUT (5/6/74) | | | | | | | | | | | |
| 8.50 | 8.70 | 8.34 | 8.11 | 8.55 | 6.32 | 6.94 | 8.41 | 8.36 | 6.70 | 9.43 | 8.03 |
| 3.78 | 4.17 | 4.13 | 3.86 | 4.19 | 3.98 | 2.86 | 2.70 | 3.49 | 2.64 | 3.65 | 3.59 |
| 2.54 | 2.34 | 2.40 | 2.54 | 1.90 | 2.62 | 2.11 | 1.54 | 1.98 | 1.45 | 2.62 | 2.18 |
| TOTAL OF 3 CUTS | | | | | | | | | | | |
| 14.83 | 15.21 | 14.88 | 14.51 | 14.63 | 12.91 | 11.90 | 12.65 | 13.83 | 10.78 | 15.70 | 13.80 |
| STANDARD ERRORS OF DIFFERENCES. | | | | | | | | | | | |
| 1st cut: | 0.334 | Mean D.M. % | 29.7 | | | | | | | | |
| 2nd cut: | 0.304 | | 29.8 | | | | | | | | |
| 3rd cut: | 0.159 | | 29.1 | | | | | | | | |
| Total of 3 cuts: | 0.436 | | 29.5 | | | | | | | | |