

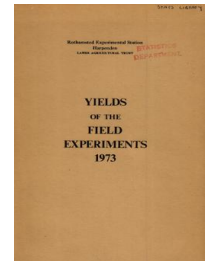
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73/R/CS/107

RYEGRASS, 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 first year, Italian and perennial ryegrass.

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

Whole plot dimensions: 2.13 x 6.10. Sub plot area harvested: 0.00056.

Treatments:-

Whole plots: 1. Ryegrass type:-

TYPE

Italian
Perennial

Italian
Perennial

Sub plots: 2. Varieties and sowing time:-

VARIETY

Italian varieties (sown autumn 1972 except where stated):

Asso, sown spring 1973
Grasslands Manawa
R.V.P.
R.V.P., sown spring 1973
S.22

Asso(S)
Manawa
RVP
RVP(S)
S.22

Perennial varieties (all sown autumn 1972):

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

Endura
Glasnevi
Gremie
Monta
Reveille
S.24

Basal applications: Manures: (0:14:28) at 900 kg. 'Nitro-Chalk' at 150 kg before sowing. (25:0:16) at 300 kg in spring and after each cut except the last.

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Seed: Sown at 45 kg.

Cultivations, etc.:— Basal N and PK applied, rotary cultivated: 3 Oct, 1972.
Seed sown (except Asso and RVP(S)): 12 Oct. NK applied to all sown plots:
9 Apr, 1973. Power harrowed, Asso(S) and RVP(S) sown: 27 Apr. Autumn
sown plots cut: 7 June. NK applied to all plots: 18 June, 25 July.
All plots cut: 18 July, 12 Sept, 23 Oct. Previous crops: Winter wheat
1971 and 1972.

NOTES: (1) Scores for Ryegrass Mosaic Virus and Crown Rust (*Puccinia coronata*) were made between third and fourth cuts.
(2) Asso(S) and RVP(S) were not ready to cut until 18 July.
(3) Spring sown plots did not receive basal N in seedbed or NK in spring.

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

1st cut:	0.331 or 7.0% (9 d.f.)
2nd cut:	0.324 or 9.2% (9 d.f.)
3rd cut:	0.210 or 8.5% (9 d.f.)
4th cut:	0.070 or 4.8% (9 d.f.)
Total of 4 cuts:	0.493 or 4.1% (9 d.f.)

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TABLES OF MEANS

DRY MATTER: TONNES/HECTARE

TYPE VARIETY	Asso(S)	Italian Manawa RVP	RVP(S)	S22	Endura	Glasnevi	Gremie	Monta	Reveille	S24	Mean
					1ST CUT 7/6/73						
	0.00	6.26	6.25	0.00	6.57	4.53	5.84	5.96	4.71	5.90	4.70
					2ND CUT 18/7/73						
	4.23	4.36	4.61	3.92	3.99	3.37	2.59	2.86	2.86	2.72	3.51
					3RD CUT 12/9/73						
	2.86	3.01	2.67	2.77	2.37	2.54	2.39	2.26	1.78	2.48	2.48
					4TH CUT 23/10/73						
	1.23	1.26	1.44	1.52	1.30	1.62	1.38	1.49	1.65	1.54	1.45
					TOTAL OF 4 CUTS						
	8.33	14.90	14.97	8.21	14.22	12.05	12.20	12.58	11.01	12.64	12.14

STANDARD ERRORS OF DIFFERENCES. For use only in comparison within the same TYPE

1st cut	0.331	Mean D.M. %	14.4
2nd cut	0.324		15.3
3rd cut	0.210		36.7
4th cut	0.070		16.1
Total of 4 cuts	0.493		20.6