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Yields of the Field Experiments 1959

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59/R/CG/3 Grass - Species and N

Rothamsted Research

Rothamsted Research (1960) *59/R/CG/3 Grass - Species and N* ; Yields Of The Field Experiments 1959, pp 105 - 106 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Cg/3.2

Summary of Results

Dry matter: cwt per acre

| N: cwt per acre* | Species | | | | Mean |
|------------------------|----------------|------|------|------|----------------|
| | C | M | R | T | |
| <u>1st cut</u> | | | | | |
| | (± 0.85) | | | | (± 0.43) |
| None | 9.1 | 19.6 | 20.7 | 12.9 | 15.5 |
| 0.3 | 25.1 | 34.8 | 39.9 | 30.1 | 32.5 |
| 0.6 | 34.0 | 40.8 | 45.2 | 36.0 | 39.0 |
| Mean (± 0.49) | 22.7 | 31.7 | 35.2 | 26.3 | 28.9 |
| <u>2nd cut</u> | | | | | |
| | (± 1.49) | | | | (± 0.74) |
| None | 6.2 | 5.5 | 1.7 | 10.8 | 6.0 |
| 0.3 | 24.0 | 15.3 | 12.2 | 27.9 | 19.9 |
| 0.6 | 31.4 | 21.5 | 21.0 | 33.6 | 26.8 |
| Mean (± 0.85) | 20.6 | 14.1 | 11.6 | 24.1 | 17.5 |
| <u>3rd cut</u> | | | | | |
| | (± 1.01) | | | | (± 0.50) |
| None | 2.0 | 1.9 | 1.3 | 1.6 | 1.7 |
| 0.3 | 17.4 | 9.8 | 4.2 | 13.0 | 11.1 |
| 0.6 | 30.1 | 17.5 | 7.8 | 21.1 | 19.1 |
| Mean (± 0.59) | 16.5 | 9.7 | 4.4 | 11.9 | 10.6 |
| <u>Total of 3 cuts</u> | | | | | |
| | (± 2.18) | | | | (± 1.09) |
| None | 17.2 | 26.9 | 23.6 | 25.2 | 23.2 |
| 0.3 | 66.5 | 59.8 | 56.3 | 71.1 | 63.4 |
| 0.6 | 95.5 | 79.7 | 73.9 | 90.7 | 84.9 |
| Mean (± 1.25) | 59.7 | 55.5 | 51.2 | 62.3 | 57.1 |

Mean dry matter % as cut:
 1st cut: 22.7
 2nd cut: 36.7
 3rd cut: 30.5
 Total of 3 cuts: 30.0

Species
 C S37 Cocksfoot
 M S215 Meadow Fescue
 R S24 Perennial Ryegrass
 T Timothy "Scotia"

* Applied for each cut.

CLOVER AND GRASS LEYS

The comparison of clover and grass leys as a preparation for wheat - West Barnfield II, 1959.

Design: 4 randomized blocks of 16 plots each.

Area of each plot: 0.0159 acres. Area harvested: 0.0068 acres.

Treatments:

Nitrogen to Leys 1959:-

To clover: none (4 plots per block)

To ryegrass: none, R1 and R2 (4 plots per block in each case)

Where R1 = 0.6 cwt N in spring, 0.15 cwt N after 1st hay cut.

R2 = 1.2 cwt N in spring, 0.30 cwt N after 1st hay cut.

The Nitrogen was applied as 'Nitro-chalk'

Note: the experiment is designed to include four rates of N applied to wheat in 1960/61.

Basal Dressings per acre:

To barley nurse crop 1958: 3 cwt compound fertilizer (10% P₂O₅, 20% K₂O) combine drilled; 2 cwt sulphate of ammonia in seedbed.
To leys combine drilled in seedbed 1958: 1 cwt superphosphate.

Cultivations, etc., barley drilled March 25th, 1958: superphosphate applied, leys undersown in barley, ryegrass at 30 lb. and clover at 20 lb. per acre: April 22nd.

'Nitro-chalk' dressings applied: March 12th and May 25th, 1959.

Cut twice for hay: May 20th and July 20th. Varieties: Italian ryegrass S22 and Double cut red clover S151.

Standard errors per plot:

Ryegrass. Dry matter:

| | | |
|------------------|---------------------------|-----------|
| 1st cut: | 3.41 cwt per acre or 7.5% | (42 d.f.) |
| 2nd cut: | 0.97 cwt per acre or 7.5% | (42 d.f.) |
| Total of 2 cuts: | 3.78 cwt per acre or 6.5% | (42 d.f.) |