

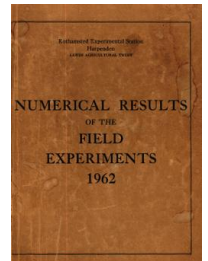
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Yields of the Field Experiments 1962

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62/W/C/5 *Trefoil* and *Reygrass Green Manures* - *Sugar Beet* (Test Crop)

Rothamsted Research

Rothamsted Research (1963) *62/W/C/5 Trefoil and Reygrass Green Manures - Sugar Beet (Test Crop)* ; Yields Of The Field Experiments 1962, pp 109 - 110 - DOI:
<https://doi.org/10.23637/ERADOC-1-164>

62/C/5.1

SUGAR BEET

Effects of trefoil and ryegrass green manures and N - Woburn
Lansome Field 1962.

Design: 3 randomised blocks of 16 plots each.

Area of each plot: 0.0169 acres. Area harvested: 0.0121 acres.

Treatments. All combinations of:-

Nitrogen: None (0); 0.5; 1.0; 1.5 cwt N per acre as 'Nitro-Chalk'.

Green manures undersown in barley 1961: None; trefoil;
ryegrass; ryegrass with 0.6 cwt N per acre as 'Nitro-Chalk'.

Basal dressings per acre:

To barley:- 2 cwt compound fertiliser (16% N, 9% P_2O_5 , 9% K_2O)
combine drilled.

To sugar beet:- 5 cwt salt; $2\frac{1}{4}$ cwt compound fertiliser (20% P_2O_5 ,
20% K_2O).

Cultivations, etc.: Ploughed: Jan 25, 1961. Barley drilled at $2\frac{1}{4}$
bushels per acre: Mar 8. Trefoil undersown at 30 lb and ryegrass
at 40 lb per acre: Apr 21. Barley combine harvested: Aug 20.
'Nitro-Chalk' treatment applied to ryegrass: Aug 21. "Fallow"
plots ploughed twice: Sept 4 and Dec 22. All plots ploughed:
Feb 2, 1962. Salt applied: Feb 15. 'Nitro-Chalk' treatments
and basal dressing applied: Mar 23. Seed drilled at 8 lb per
acre: Mar 26. Singled: May 23. Lifted: Oct 23. Varieties:
Ryegrass - S22 Italian; barley - Proctor; sugar beet - Klein E.
Previous crops: Spring wheat 1959, potatoes 1960.

Standard errors per plot.

Roots (washed): 1.473 tons per acre or 8.3% (30 d.f.)

Total sugar: 5.93 cwt per acre or 9.1% (30 d.f.)

Note: Estimates were made of dry matter and N per acre in green
manures just before ploughing.

62/C/5.2

Summary of ResultsN: cwt per acre

Green manure undersown 1961	None	0.5	1.0	1.5	Mean
<u>Roots (washed): tons per acre</u>					
	(± 0.850)				(± 0.425)
None	10.78	17.25	21.15	19.08	17.07
Trefoil	12.80	19.46	20.92	21.33	18.63
Ryegrass	10.46	17.78	19.42	20.37	17.01
Ryegrass + N	14.16	18.52	18.99	22.28	18.49
Mean (± 0.425)	12.05	18.25	20.12	20.77	17.79

Sugar percentage

None	17.7	18.7	18.5	17.5	18.1
Trefoil	18.6	18.5	18.5	18.1	18.4
Ryegrass	18.8	18.7	18.3	17.9	18.4
Ryegrass + N	18.7	18.0	18.8	17.6	18.3
Mean	18.4	18.5	18.5	17.8	18.3

Total sugar: cwt per acre

	(± 3.43)				(± 1.71)
None	38.1	64.4	78.5	66.7	61.9
Trefoil	47.7	72.2	77.4	77.0	68.6
Ryegrass	39.5	66.6	71.1	73.1	62.6
Ryegrass + N	52.9	66.6	71.3	78.3	67.3
Mean (± 1.71)	44.5	67.4	74.6	73.8	65.0