

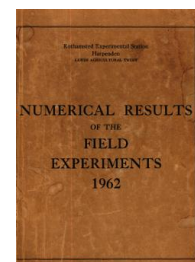
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## Yields of the Field Experiments 1962

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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<sub>2</sub>O<sub>5</sub>, 9% K<sub>2</sub>O)  
combine drilled.

To sugar beet:- 5 cwt salt; 2½ cwt compound fertiliser (20% P<sub>2</sub>O<sub>5</sub>,  
20% K<sub>2</sub>O).

Cultivations, etc.: Ploughed: Jan 25, 1961. Barley drilled at 2¼  
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 Results

N: cwt per acre

Green manure undersown 1961	None	0.5	1.0	1.5	Mean
	<u>Roots (washed): tons per acre</u>				
		$(\pm 0.850)$			$(\pm 0.425)$
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 ( $\pm 0.425$ )	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

		$(\pm 3.43)$			$(\pm 1.71)$
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 ( $\pm 1.71$ )	44.5	67.4	74.6	73.8	65.0