

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1964

[Full Table of Content](#)



64/W/WGM/B/3 Green Manuring

Rothamsted Research

Rothamsted Research (1965) *64/W/WGM/B/3 Green Manuring ; Yields Of The Field Experiments 1964*, pp 71 - 75 - DOI: <https://doi.org/10.23637/ERADOC-1-160>

64/B/3.1

GREEN MANURING EXPERIMENT

(WGM)

Woburn Stackyard - revised 1964.

For history, treatments, etc., see 'Details' 1962.

Area of each sub-plot: 0.0195. Area harvested: 0.0146.

Barley will be grown on all plots from 1964 onwards.

Treatments. 1964:

Old fallow plots. N1 N2 N3 N4.

Remainder. All combinations of:-

1. Green manures: none (duplicate plots), trefoil, ryegrass undersown annually (whole plots).

2. NO N1 N2 N3.

Levels: NO - none

N1 - 0.3 (cwt N as 'Nitro-Chalk')

N2 - 0.6

N3 - 0.9

N4 - 1.2

Each plot is split into 2, the N levels being paired as follows:-

(NO, N2) (N1, N3) (N2, N4).

All treatments are cumulative. Residual effects of certain past treatments are ascertainable.

Basal dressing: 3 cwt 0:20:20 combine drilled.

Cultivations, etc.:-

Barley after barley (Upper Half): 'Fallow' plots ploughed:

Nov 25, 1963. Green manure plots ploughed: Feb 3, 1964.

Barley after sugar beet (Lower Half): Ground chalk applied at

22 cwt: Dec 10, 1963. Ploughed: Jan 3, 1964.

All plots: Seed drilled at 2.75 bushels: Mar 10, 1964.

'Nitro-Chalk' applied: Mar 12. Ryegrass at 40 lb and

trefoil at 30 lb undersown: May 6. Sprayed with mecoprop/2,4-D

(Methoxone Extra at 6 pints in 40 gals) - except plots undersown

with trefoil: May 21. Combine harvested: Aug 22. Varieties:

Barley - Maris Badger, trefoil - English, ryegrass - English

Leafy Italian.

64/B/3.2

SUMMARY OF RESULTS

BARLEY AFTER SUGAR BEET

GRAIN

EXCLUDING PLOTS FALLOW UNDER OLD SCHEME

N 1964

	NO	N1	N2	N3	Mean
Mean	11.9	18.5	28.4	33.2	23.0
N 1963*					
NO	14.4	20.9	26.0	32.6	23.5
N1	13.6	15.7	29.2	32.7	22.8
N2	9.7	21.5	31.5	33.0	23.9
N3	9.7	15.9	26.9	34.6	21.8
Undersown 1964					
O	13.0	18.8	29.3	32.4	23.4
T	11.2	16.3	28.6	32.8	22.3
R	10.2	20.0	26.4	35.1	22.9
Green manures 1955 - 63					
T	11.0	17.4	24.7	33.5	21.6
R	11.3	15.3	32.8	26.4	21.4
TU	13.7	22.8	33.7	35.6	26.5
RU	11.5	18.5	22.5	37.4	22.5
Dung last applied 1953					
O	13.0	17.4	28.7	31.4	22.6
D	10.7	19.6	28.1	35.0	23.4

T = Trefoil grown as a green manure after early potatoes

R = Ryegrass grown after early potatoes

TU = as T, but with trefoil undersown in the barley

RU = as R, but with ryegrass undersown in the barley.

*N to sugar beet 1963 at 0, 0.67, 1.33, 2.00 cwt N.

64/B/3.3

BARLEY AFTER SUGAR BEET

GRAIN

EXCLUDING PLOTS FALLOW UNDER OLD SCHEME

GREEN MANURES 1955 - 63

Dung last applied 1953	T	R	TU	RU
O	20.2	23.0	26.8	20.5
D	23.1	19.9	26.1	24.4

PLOTS FALLOW UNDER OLD SCHEME

N 1964

	N1	N2	N3	N4	Mean
Mean	14.3	24.4	34.3	37.7	27.7
N 1963*					
NO	12.1	20.8	36.2	43.6	28.2
N1	21.2	25.8	35.1	36.4	29.6
N2	10.1	29.1	25.0	35.0	24.8
N3	13.9	22.1	40.8	36.0	28.2
Dung last applied 1953					
O	17.6	25.0	37.9	39.3	29.9
D	11.1	23.9	30.6	36.2	25.5

*N to sugar beet 1963 at 0, 0.67, 1.33, 2.00 cwt N.

64/B/3.4

BARLEY AFTER BARLEY

GRAIN

EXCLUDING PLOTS FALLOW UNDER OLD SCHEME

N 1964

	NO	N1	N2	N3	Mean
Mean	17.3	26.9	36.2	40.0	30.1
N 1963					
NO	20.2	29.4	33.8	42.1	31.4
N1	17.5	24.6	36.6	41.2	30.0
N2	15.4	28.1	38.2	40.0	30.5
N3	16.0	25.4	36.2	36.8	28.6
Undersown 1964					
O	18.2	28.2	37.9	40.4	31.2
T	14.7	24.6	30.3	39.5	27.3
R	18.1	26.5	38.8	39.9	30.8
Green manures 1955 - 64					
T	13.5	21.6	32.6	37.4	26.3
R	14.6	22.0	34.2	40.5	27.8
TU	26.1	38.9	40.4	41.6	36.7
RU	14.9	25.1	37.7	40.6	29.6
Dung last applied 1952					
O	17.2	26.1	36.5	38.3	29.5
D	17.4	27.6	36.0	41.8	30.7

T = Trefoil grown as a green manure after early potatoes

R = Ryegrass grown after early potatoes

TU = as T, but with trefoil undersown in the barley

RU = as R, but with ryegrass undersown in the barley.

64/B/3.5

BARLEY AFTER BARLEY

GRAIN

EXCLUDING PLOTS FALLOW UNDER OLD SCHEME

GREEN MANURES 1955 - 63

Dung last applied 1952	T	R	TU	RU
O	22.7	28.7	38.5	28.1
D	29.8	27.0	35.0	31.0

PLOTS FALLOW UNDER OLD SCHEME

N 1964

	N1	N2	N3	N4	Mean
Mean	18.9	30.8	38.8	41.7	32.6
N 1963					
NO	12.3	34.0	43.2	44.8	33.6
N1	21.4	28.1	41.8	36.0	31.8
N2	21.8	30.0	29.5	43.6	31.2
N3	20.2	31.1	40.8	42.6	33.7
Dung last applied 1952					
O	17.1	29.6	36.3	39.3	30.6
D	20.8	32.0	41.3	44.2	34.6