

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 1976

[Full Table of Content](#)

76/W/CS/181 Green Manure - Barley

Rothamsted Research

Rothamsted Research (1977) *76/W/CS/181 Green Manure - Barley*; Yields Of The Field Experiments 1976, pp 235 - 239 - DOI: <https://doi.org/10.23637/ERADOC-1-15>

76/R/CS/180 IRRIGATED PLOTS ONLY

GRAIN TONNES/HECTARE

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

| TABLE | BENOMYL FENITROT | N PIRIMICA | ALDICARB PIRIMICA | DIELDRIN PIRIMICA |
|-------|---------------------|---------------|----------------------|----------------------|
| SED | 0.166 | 0.166 | 0.166 | 0.166 |

| TABLE | BENOMYL PIRIMICA | FENITROT PIRIMICA | N ALDICARB DIELDRIN | N ALDICARB BENOMYL |
|-------|---------------------|----------------------|---------------------------|--------------------------|
| SED | 0.166 | 0.166 | 0.235 | 0.235 |

| TABLE | ALDICARB DIELDRIN BENOMYL | N DIELDRIN FENITROT | ALDICARB DIELDRIN FENITROT | N BENOMYL FENITROT |
|-------|---------------------------------|---------------------------|----------------------------------|--------------------------|
| SED | 0.235 | 0.235 | 0.235 | 0.235 |

| TABLE | ALDICARB BENOMYL FENITROT | DIELDRIN BENOMYL FENITROT | N ALDICARB PIRIMICA | N DIELDRIN PIRIMICA |
|-------|---------------------------------|---------------------------------|---------------------------|---------------------------|
| SED | 0.235 | 0.235 | 0.235 | 0.235 |

| TABLE | N BENOMYL PIRIMICA | ALDICARB BENOMYL PIRIMICA | DIELDRIN BENOMYL PIRIMICA | N FENITROT PIRIMICA |
|-------|--------------------------|---------------------------------|---------------------------------|---------------------------|
| SED | 0.235 | 0.235 | 0.235 | 0.235 |

| TABLE | ALDICARB FENITROT PIRIMICA | DIELDRIN FENITROT PIRIMICA |
|-------|----------------------------------|----------------------------------|
| SED | 0.235 | 0.235 |

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

| STRATUM | DF | SE | CV% |
|-------------|----|-------|------|
| BLOCK.WP.SP | 19 | 0.469 | 15.4 |

GRAIN MEAN DM% 83.1

SUB PLOT AREA HARVESTED 0.00293

76/W/CS/181

GREEN MANURE

Object: To study the effects of a green manure sown at different dates and interactions with fertiliser nitrogen to the following crop - Woburn Gt. Hill III, Lansome III.

Sponsors: G.V. Dyke, G.E.G. Mattingly.

The first year, barley.

Design: 4 series (for future additional tests) each of 24 plots. All sown to barley in 1976:
Series I and II Each 12 replicates of 2 plots, fully randomised.
Series III No treatments in 1976.
Series IV 2 replicates of 2 x 6 fully randomised.

Whole plot dimensions: 4.26 x 6.10.

Treatments: Series I and II:-

| | |
|---------|--------------------------------|
| TREFOIL | Methods of sowing trefoil: |
| NONE | Not sown (12 plots) |
| U SOWN | Undersown in spring (12 plots) |

Series IV: All combinations of:-

| | |
|------------|----------------------------------|
| 1. TREFOIL | Methods of sowing trefoil: |
| NONE | Not sown (duplicated) |
| U SOWN | Undersown in spring (duplicated) |

2. N Nitrogen fertiliser (kg N):

| | |
|-----|------|
| 0 | None |
| 30 | 30 |
| 60 | 60 |
| 90 | 90 |
| 120 | 120 |
| 150 | 150 |

NOTE: Trefoil was also sown on certain plots on 20 July. This treatment has been ignored in the analysis because it could not affect yield of mature barley.

Standard applications: Manures: Gt. Hill III, Series I & II: (20:14:14) at 450 kg combine drilled. Lansome III, Series IV: Magnesian limestone at 7.5 t, (0:20:20) at 350 combine drilled. Weedkiller: All Series: Dinoseb amine at 2.1 kg in 560 l.

Seed: Julia, dressed with ethirimol, sown at 160 kg.
English trefoil, inoculated with Rhizobium, sown at 27 kg.

76/W/CS/181

Cultivations, etc.:-

Gt. Hill III, Series I & II: Deep-tine cultivated twice: 16 Sept, 17 Sept, 1975. Ploughed: 6 Nov. Spring-tine cultivated: 1 Mar, 1976. Seed sown: 5 Mar.

Lansome III, Series IV: Magnesian limestone applied: 2 Sept, 1975. Ploughed: 9 Oct. Spring-tine cultivated with crumbler and barley sown: 22 Mar, 1976. N applied: 23 Mar.

All Series: Weedkiller applied: 4 May. Trefoil undersown and harrowed in: 10 May. Combine harvested: 28 July.

NOTE: Series III had no treatments, receiving basal instead of test N in error. This series has since been abandoned. Series IV was sown and treated in place of Series III.

SERIES I

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

| TREFOIL | NONE | U SOWN | MEAN |
|---------|------|--------|------|
| | 2.63 | 2.95 | 2.79 |

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

| TABLE | TREFOIL |
|-------|---------|
| ----- | ----- |
| SED | 0.288 |

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

| STRATUM | DF | SE | CV% |
|---------|----|-------|------|
| WP | 22 | 0.706 | 25.3 |

GRAIN MEAN DM% 89.4

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

| TREFOIL | NONE | U SOWN | MEAN |
|---------|------|--------|------|
| | 1.52 | 1.89 | 1.70 |

STRAW MEAN DM% 90.7

PLOT AREA HARVESTED 0.00186

76/W/CS/181

SERIES II

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

| TREFOIL | NONE | U SOWN | MEAN |
|---------|------|--------|------|
| | 3.59 | 3.70 | 3.64 |

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

| TABLE | TREFOIL |
|-------|---------|
| ----- | |
| SED | 0.189 |

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

| STRATUM | DF | SE | CV% |
|---------|----|-------|------|
| WP | 22 | 0.464 | 12.7 |

GRAIN MEAN DM% 88.4

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

| TREFOIL | NONE | U SOWN | MEAN |
|---------|------|--------|------|
| | 2.29 | 2.39 | 2.34 |

STRAW MEAN DM% 91.9

PLOT AREA HARVESTED 0.00186

SERIES III

GRAIN TONNES/HECTARE

GRAND MEAN 3.38

GRAIN MEAN DM% 87.3

STRAW TONNES/HECTARE

GRAND MEAN 2.14

STRAW MEAN DM% 93.7

PLOT AREA HARVESTED 0.00186

76/W/CS/181

SERIES IV

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

| | N | 0 | 30 | 60 | 90 | 120 | 150 | MEAN |
|---------|---|------|------|------|------|------|------|------|
| TREFOIL | | | | | | | | |
| NONE | | 0.23 | 0.57 | 0.56 | 0.79 | 0.53 | 0.80 | 0.58 |
| U SOWN | | 0.27 | 0.47 | 0.63 | 0.56 | 0.63 | 0.50 | 0.51 |
| MEAN | | 0.25 | 0.52 | 0.60 | 0.68 | 0.58 | 0.65 | 0.55 |

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

| TABLE | TREFOIL | N | TREFOIL N |
|-------|---------|-------|--------------|
| SED | 0.146 | 0.253 | 0.358 |

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

| STRATUM | DF | SE | CV% |
|---------|----|-------|------|
| WP | 12 | 0.358 | 65.6 |

GRAIN MEAN DM% 86.4

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

| | N | 0 | 30 | 60 | 90 | 120 | 150 | MEAN |
|---------|---|------|------|------|------|------|------|------|
| TREFOIL | | | | | | | | |
| NONE | | 0.20 | 0.47 | 0.69 | 0.67 | 0.75 | 0.84 | 0.60 |
| U SOWN | | 0.17 | 0.53 | 0.78 | 0.67 | 0.70 | 0.86 | 0.62 |
| MEAN | | 0.18 | 0.50 | 0.74 | 0.67 | 0.72 | 0.85 | 0.61 |

STRAW MEAN DM% 90.6

PLOT AREA HARVESTED 0.00173