

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

Numerical Results of the Field Experiments 1970

[Full Table of Content](#)



70/R/CS/59 Break Crops and Wheat - Barley, Oats, Beans, Maize, Clover, Undersown *Trefoil*

Rothamsted Research

Rothamsted Research (1971) *70/R/CS/59 Break Crops and Wheat - Barley, Oats, Beans, Maize, Clover, Undersown Trefoil* ; Numerical Results Of The Field Experiments 1970, pp 207 - 210 - DOI: <https://doi.org/10.23637/ERADOC-1-59>

BREAK CROPS AND WHEAT

(70/R/CS/59)

Geescroft 1970 the first year, barley, oats, beans, maize, clover and undersown trefoil.

Design: 3 randomised blocks of 14 plots.

Area of each plot: 0.0350. Area harvested: Barley: 0.0232. Oats: 0.0234. Beans: 0.0263. Clover: 0.0083.

Treatments: Crops:- Spring beans (2 plots per block), clover (2 plots per block) and all combinations of:-

1. Crops: Barley (B), oats (O)
2. Undersowing: None (O), Trefoil (T)
3. Nitrogen: 0.4 (N1), 0.8 (N2) cwt as 'Nitro-Chalk' in the seedbed.

Together with additional crop maize (MA), receiving N at 0.8 (N2)

- 1.6 (N4) cwt as 'Nitro-Chalk' in the seedbed.

Basal and standard applications: 3 tons ground chalk. 450 lb (0:20:20) across the plough furrow. Weedkillers: Paraquat at 0.5 lb ion in 20 gals. MCPB at 2.5 lb a.e. in 20 gals to oats, barley and clover. Insecticide: Phorate at 17 oz in granules to beans.

Cultivations, etc.: Paraquat applied: 3 Oct, 1969. Ground chalk applied: 30 Oct. Ploughed: 1 Dec. Basal PK compound applied: 1 Apr, 1970.

Barley: N applied, seed drilled at 140 lb: 17 Apr, 1970. Trefoil undersown at 20 lb: 7 May. MCPB applied: 5 June. Combine harvested: 14 Aug. Variety: Julia.

Oats: N applied, seed drilled at 170 lb: 17 Apr, 1970. Trefoil undersown at 20 lb: 7 May. MCPB applied: 5 June. Combine harvested: 14 - 24 Aug. Variety: Manod.

Spring beans: Seed drilled at 200 lb: 17 Apr, 1970. Insecticide applied: 16 June. Combine harvested: 4 Sept. Variety: Maris Bead.

Maize: N applied: 17 Apr, 1970. Seed drilled at 48 lb: 15 May. Singled: 16 June. Cut with mower: 14 Oct. Variety: Earliking (F1 Hybrid).

Clover: Seed sown at 32 lb: 28 Apr, 1970. MCPB applied: 5 June. Cut twice: 24 Aug, 29 Sept. Variety: Broad Red.

Previous crops: Spring wheat 1968, barley 1969. Variety of trefoil: English.

70/R/GS/59

NOTE: Barley plots were sampled in summer for eyespot (*Cercospora herpotrichoides*) and take-all (*Ophiobolus graminis*). Maize plots were sampled for take-all in September. Trefoil and clover were sampled before ploughing in and estimates made of the dry matter and N per acre.

Standard errors per plot.

Barley: Grain, cwt: 1.15 or 3.8% (6 d.f.)

Oats: Grain, cwt: 1.32 or 11.0% (6 d.f.)

70/R/CS/59

SUMMARY OF RESULTS

BARLEY

GRAIN: CWT

	O	T	Mean
	(±0.67)		(±0.47)
N1	28.6	28.1	28.3
N2	33.3	31.3	32.3
Mean (±0.47)	30.9	29.7	30.3

Mean D.M. %: 84.8

OATS

GRAIN: CWT

	O	T	Mean
	(±0.76)		(±0.54)
N1	13.0	10.0	11.5
N2	13.7	11.1	12.4
Mean (±0.54)	13.3	10.5	11.9

Mean D.M. %: 73.2

70/R/GS/59

BEANS

GRAIN: CWT

Mean

12.4

CLOVER

DRY MATTER: CWT

Mean

1st cut: 36.0

2nd cut: 14.9

Total of 2 cuts: 50.8

Mean D.M. %:

Beans 73.5

Clover, 1st cut: 18.6

2nd cut: 14.9

Total of 2 cuts: 16.8
