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## Numerical Results of the Field Experiments 1969

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### 69/R/CS/44 - Break Crops & Wheat - Cereals & Legumes

#### Rothamsted Research

Rothamsted Research (1970) *69/R/CS/44 - Break Crops & Wheat - Cereals & Legumes* ; Numerical Results Of The Field Experiments 1969, pp 218 - 219 - **DOI:**

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BREAK CROPS AND WHEAT

(69/R/CS/44)

Cereals and legumes, Long Hoos III 1969, the first year.

Design: 3 randomised blocks of 12 plots.

Area of each plot: 0.0415. Area harvested: Barley - 0.0275,  
Oats - 0.0276. Beans - 0.0259, Clover - 0.0099.

Treatments: Break crops:- Spring beans (2 plots per block), clover  
(2 plots per block) and all combinations of:-  
1. Break crops: Barley (B), oats (O).  
2. Undersown: None (O), Trefoil (T).  
3. Nitrogen: 0.4 (N1), 0.8 (N2) cwt as 'Nitro-Chalk' in the seedbed.

Basal and other applications: 450 lb (0:20:20) across the plough  
furrow. Weedkillers: Paraquat at 0.75 lb ion in 20 gals.  
MCPB at 2 lb a.e. in 30 gals to undersown plots of barley  
and oats and to clover. MCPA at 38 oz and dicamba at 1.28 oz  
in 20 gals to barley and oats. Insecticide: Phorate at  
28 oz in granules to beans.

Cultivations, etc.: Paraquat applied: 28 Sept, 1968. Ploughed:  
8 Nov. PK basal compound applied: 26 Mar, 1969.  
Barley: Seed drilled at 140 lb: 26 Mar, 1969. Trefoil undersown  
at 30 lb: 28 Mar. 'Nitro-Chalk' applied: 2 Apr. MCPB applied:  
22 May. MCPA/dicamba applied: 23 May. Combine harvested:  
13 Aug. Variety: Zephyr.  
Oats: Seed drilled at 160 lb: 26 Mar, 1969. Trefoil undersown  
at 30 lb: 28 Mar. 'Nitro-Chalk' applied: 2 Apr. MCPB applied:  
22 May. MCPA/dicamba applied: 23 May. Combine harvested:  
20 Aug. Variety: Manod.  
Spring beans: Seed drilled at 200 lb: 26 Mar, 1969. Insecticide  
applied: 18 June. Combine harvested: 10 Sept. Variety:  
Maris Bead.  
Clover: Seed sown at 30 lb: 28 Mar, 1969. MCPB applied:  
22 May. Cut once: 14 Aug. Variety: Broad Red (inoculated seed).  
Previous crops: Spring beans 1967, winter wheat 1968. Variety  
of trefoil: English.

NOTE: Barley plots were sampled in summer for eyespot (*Cercospora herpotrichoides*) and take-all (*Ophiobolus graminis*). 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: 3.51 or 8.2% (6 d.f.)

Oats, Grain, cwt: 0.65 or 1.6% (6 d.f.)

SUMMARY OF RESULTS

	O	T	Mean
BARLEY, GRAIN: CWT			
	(±2.03)		(±1.43)
N1	40.3	40.6	40.4
N2	45.5	44.5	45.0
Mean (±1.43)	42.9	42.5	42.7
OATS, GRAIN: CWT			
	(±0.38)		(±0.27)
N1	41.0	39.8	40.4
N2	43.8	43.9	43.9
Mean (±0.27)	42.4	41.8	42.1

SPRING BEANS, GRAIN: CWT

Mean 24.5

RED CLOVER, DRY MATTER: CWT

1ST AND ONLY CUT

Mean 46.2

Mean D.M. %: Barley: 82.5  
 Oats: 81.2  
 Spring beans: 80.1  
 Red clover: 21.7