

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 1973

[Full Table of Content](#)



73/W/CS/99 - Effects of Breaks on Take-all - Barley, Beans

Rothamsted Research

Rothamsted Research (1974) *73/W/CS/99 - Effects of Breaks on Take-all - Barley, Beans* ; Yields Of The Field Experiments 1973, pp 251 - 252 - DOI: <https://doi.org/10.23637/ERADOC-1-98>

73/W/CS/99

EFFECTS OF BREAKS ON TAKE-ALL

Object: To study the phenomenon of 'take-all' (*Gaeumannomyces graminis*) decline in barley - Woburn Butt Furlong.

Sponsor: D. Hornby.

The second year, barley, spring beans.

For previous year see 72/W/CS/99(t).

Design: 2 blocks of 9 plots.

Whole plot dimensions: 5.33 x 15.2. Area harvested: 0.00434.

Treatments: Previous crops:-

PREVCROP

1968-71	1972	
B	B (6 plots per block)	B/B
B	F	B/F

B = Barley, F = Fallow.

Basal applications:

Barley: Manures: 500 kg (20:15:15) combine drilled. Weedkiller: Ioxynil at 0.53 kg plus mecoprop at 1.6 kg in 280 l.

Spring beans: Manures: (0:14:28) at 370 kg placement drilled. Weedkiller: Simazine at 0.84 kg in 280 l. Insecticide: Phorate at 1.1 kg as granules.

Seed:

Barley: Julia, dressed with ethirimol, sown at 160 kg.

Spring beans: Minor, sown at 190 kg.

Cultivations, etc.:-

All plots: Deep-tine cultivated twice: 31 Aug, 1972, 25 Sept.

Ploughed: 21 Dec.

Barley: Seed sown: 13 Mar, 1973. Weedkiller applied: 15 May.

Combine harvested: 10 Aug.

Spring beans: Seed sown: 27 Feb, 1973. Weedkiller applied: 5 Mar.

Insecticide applied: 6 June. Combine harvested: 30 Aug.

73/W/CS/99

NOTE: Soil samples were taken before sowing and after harvest and plant samples in July for incidence of 'take-all' (*Gaeumannomyces graminis*).

Standard error per plot. Barley.

Grain, tonnes/hectare: 0.375 or 9.5% (11 d.f.)

TABLES OF MEANS

BARLEY

GRAIN: TONNES/HECTARE

PREVCROP

B/B	B/F	Mean
3.85	4.56	3.95

STANDARD ERROR OF DIFFERENCES

PREVCROP

0.287

Mean D.M. % 84.2

SPRING BEANS

GRAIN: TONNES/HECTARE

Mean

3.26

Mean D.M. % 81.8