

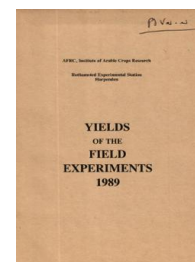
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1989

[Full Table of Content](#)



89/R/CS/212 Seasonal Effects of Take-all - W. Wheat, S. Beans

Rothamsted Research

Rothamsted Research (1990) *89/R/CS/212 Seasonal Effects of Take-all - W. Wheat, S. Beans* ; Yields Of The Field Experiments 1989, pp 75 - 76 - DOI: <https://doi.org/10.23637/ERADOC-1-40>

89/R/CS/212

SEASONAL EFFECTS OF TAKE-ALL

Object: To study the incidence of take-all (*Gaeumannomyces graminis*) in continuous w. wheat and in first, second and third w. wheats after a break - Great Harpenden I.

Sponsors: D. Hornby, R.J. Gutteridge.

The 12th year, s. beans, w. wheat.

For previous years see 78-88/R/CS/212.

Design: 3 randomised blocks of 8 plots.

Whole plot dimensions: 5.33 x 10.7.

Treatments:

PREVCROP Previous crops before w. wheat 1989:

	78	79	80	81	82	83	84	85	86	87	88
W9 W W	W	W	W	W	W	W	W	W	W	W	W
W2 BE W	BE	W	W	BE	W	W	BE	W	W	BE	W
BE2 W W	W	BE	W	W	BE	W	W	BE	BE	W	W
BE1 W W	W	W	W	W	W	W	W	W	BE	W	W
W2 W W	BE	W	W	BE	W	W	BE	W	W	W	W
W3 W W	W	W	BE	W	W	BE	W	W	W	W	W
W1 W BE	W	BE	W	W	BE	W	W	BE	W	W	BE

BE = s. beans, W = w. wheat

NOTE: One additional crop sequence was in s. beans 1989, yields not taken.

Standard applications:

Both crops: Manures: (0:18:36) at 920 kg. Fungicides: Prochloraz at 0.40 kg and carbendazim at 0.15 kg in 200 l. Insecticide: Pirimicarb at 0.14 kg in 200 l.

W. wheat: Manure: 'Nitram' at 400 kg. Weedkillers: Chlortoluron at 3.5 kg in 200 l. Mecoprop at 2.2 kg, bromoxynil at 0.28 kg and ioxynil at 0.28 kg with isoproturon at 2.0 kg in 200 l.

S. beans: Insecticide: Deltamethrin at 7.5 g in 400 l.

Seed: W. wheat: Avalon, sown at 190 kg.

S. beans: Alfred, sown at 200 kg.

Cultivations, etc.:-

Both crops: PK applied: 16 Sept, 1988. Ploughed: 21 Sept.

Fungicides applied: 10 May, 1989. Pirimicarb applied: 20 June.

W. wheat: Rotary harrowed, seed sown: 18 Oct, 1988. Chlortoluron applied: 21 Oct. N applied: 21 Apr, 1989. Remaining weedkillers applied: 5 May. Combine harvested: 9 Aug.

S. beans: Heavy spring-tine cultivated, rotary harrowed: 29 Mar, 1989. Seed sown: 30 Mar. Insecticide applied: 10 May. Combine harvested: 14 Aug.

89/R/CS/212

NOTE: Plant and soil samples were taken on nine occasions during the season to assess take-all. Post-harvest soil samples were taken to measure the suppressiveness of the soil to take-all.

GRAIN TONNES/HECTARE

***** Tables of means *****

PREVCROP	
W9 W W	5.28
W2 BE W	5.83
BE2 W W	5.75
BE1 W W	5.90
W2 W W	5.25
W3 W W	6.02
W1 W BE	5.51
Mean	5.65

*** Standard errors of differences of means ***

PREVCROP
0.441

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
BLOCK.WP	12	0.541	9.6
GRAIN MEAN DM%	89.0		
PLOT AREA HARVESTED	0.00289		