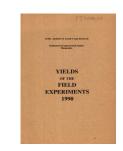
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readible, or you suspect there are some problems, please let us know and we will correct that.



Yields of the Field Experiments 1990



Full Table of Content

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

Rothamsted Research

Rothamsted Research (1991) 90/R/CS/212 Seasonal Effects of Take-all - W. Wheat, S. Beans; Yields Of The Field Experiments 1990, pp 61 - 62 - DOI: https://doi.org/10.23637/ERADOC-1-42

90/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 13th year, s. beans, w. wheat.

For previous years see 78-89/R/CS/212.

Design: 3 randomised blocks of 8 plots.

Whole plot dimensions: 5.33×10.0 .

Treatments:

PREVCROP	Previous crops before w. wheat 1990:											
	78	79	80	81	82	83	84	85	86	87	88	89
W12	W	W	W	W	W	W	W	W	W	W	W	W
BE2 W3	W	BE	W	W	BE	W	W	BE	BE	W	W	W
BE1 W3	W	W	W	W	W	W	W	W	BE	W	W	W
BE1 W5	BE	W	W	BE	W	W	BE	W	W	W	W	W
BE1 W6	W	W	BE	W	W	BE	W	W	W	W	W	W
BE1 W1	W	BE	W	W	BE	W	W	BE	W	W	BE	W
BE1	W	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 1990, yields not taken.

Standard applications:

W. wheat: Manure: 'Nitram' at 410 kg. Weedkillers: Isoproturon at 1.7 kg in 200 l. Fluroxypyr at 0.15 kg with bromoxynil at 0.24 kg, clopyralid at 0.05 kg applied with the prochloraz in 200 l. Fungicides: Prochloraz at 0.40 kg. Propiconazole at 0.12 kg with carbendazim at 0.25 kg and maneb at 1.6 kg in 200 l. Insecticide: Deltamethrin at 6.2 g in 200 l.

Seed: W. wheat: Avalon, sown at 180 kg. S. beans: Alfred, sown at 260 kg.

Cultivations, etc.:-

Both crops: Ploughed: 31 Aug, 1989. Rotary harrowed twice: 2 Oct. Rotary harrowed: 3 Oct.

- W. wheat: Seed sown: 4 Oct, 1989. Isoproturon applied: 20 Nov. Insecticide applied: 22 Feb, 1990. N applied: 17 Apr. Remaining weedkillers with prochloraz applied: 25 Apr. Remaining fungicides applied: 14 June. Combine harvested: 10 Aug.
- S. beans: Spring-tine cultivated, rotary harrowed, seed sown: 6 Mar, 1990. Combine harvested: 16 Aug.

90/R/CS/212

NOTE: Plant and soil samples were taken frequently during the season to assess take-all. Additional soil samples were taken to measure the suppressiveness of the soil to the take-all fungus.

GRAIN TONNES/HECTARE

**** Tables of means ****

PREVCROP W12 4.15 BE2 W3 3.65 BE1 W3 4.19 BE1 W5 4.05 BE1 W6 4.27 BE1 W1 4.71 BE1 5.98 Mean 4.43

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

PREVCROP

0.286

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

Stratum d.f. s.e. cv%
BLOCK.WP 12 0.350 7.9

GRAIN MEAN DM% 89.2

PLOT AREA HARVESTED 0.00220