

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 1984

[Full Table of Content](#)



84/R/BE/9 Effects of Pests and Pathogens - S. Beans

Rothamsted Research

Rothamsted Research (1985) *84/R/BE/9 Effects of Pests and Pathogens - S. Beans ; Yields Of The Field Experiments 1984*, pp 291 - 292 - DOI: <https://doi.org/10.23637/ERADOC-1-32>

84/R/BE/9

SPRING BEANS

EFFECTS OF PESTS AND PATHOGENS

Object: To assess the effects of three amounts of pest and disease control on irrigated and unirrigated s. beans - Fosters Corner.

Sponsors: J. McEwen, R. Bardner, A.J. Cockbain, D.H. Lapwood, R.M. Webb, D.P. Yeoman.

Design: 4 randomised blocks of 2 plots split into 3.

Whole plot dimensions: 4.27 x 13.7.

Treatments: All combinations of:-

Whole plots

1. IRRIGATN	Irrigation:
NONE	None
FULL	Full (total 150 mm)

Sub plots

2. PATHCONT	Pest and pathogen control:
STANDARD	None
ENHANCED	Phorate at 2.2 kg, applied to seed furrows Pirimicarb at 0.14 kg on 4 June, 1984 Maneb at 0.8 kg with mancozeb at 0.8 kg on 1 Aug
FULL	Benomyl at 0.56 kg on 16 Aug Aldicarb at 10 kg on 20 Mar Phorate at 2.2 kg applied to seed furrows Fosetyl-Al at 1.6 kg on 16 May Pirimicarb at 0.14 kg on 4 June Benomyl at 0.56 kg on 6 July and 16 Aug Maneb at 0.8 kg with mancozeb at 0.8 kg on 1 Aug and 16 Aug

NOTES: (1) A planned application of pirimicarb to all plots was omitted because black aphids were few.

(2) Irrigation was applied as follows (mm water):

3 May	25
15 May	25
15 June	25
24 July	25
1 Aug	25
15 Aug	<u>25</u>
Total	150 mm

(3) Treatment sprays were applied in 220 l.

Basal applications: Weedkillers: Simazine at 1.2 kg in 250 l.

84/R/BE/9

Seed: Minden, sown at 200 kg.

Cultivations, etc.:— Ploughed: 6 Dec, 1983. Heavy spring-tine cultivated, aldicarb broadcast, rotary harrowed, phorate applied and seed sown: 20 Mar, 1984. Weedkiller applied: 22 Mar. Combine harvested: 31 Aug. Previous crops: W. wheat 1982, s. barley 1983.

NOTE: Plant counts were made after establishment and components of yield were measured at maturity. Total above ground dry matter and N content were measured in August. Migratory nematodes, root and foliar fungi, aphids, weevils and viruses were counted at intervals during the season. N content of grain was measured.

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

PATHCONT IRRIGATN	STANDARD	ENHANCED	FULL	MEAN
NONE	3.46	4.13	4.57	4.05
FULL	4.69	5.39	5.59	5.22
MEAN	4.08	4.76	5.08	4.64

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	PATHCONT	IRRIGATN* PATHCONT
SED	0.118	0.167

* WITHIN THE SAME LEVEL OF IRRIGATN ONLY

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP.SP	12	0.235	5.1

GRAIN MEAN DM% 85.7

SUB PLOT AREA HARVESTED 0.00293