

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 1980

[Full Table of Content](#)



### 80/R/BE/10 Spring Beans Rates and Times of Applying Entomorphthora

#### Rothamsted Research

Rothamsted Research (1981) *80/R/BE/10 Spring Beans Rates and Times of Applying Entomorphthora* ; Yields Of The Field Experiments 1980, pp 290 - 291 - DOI:

<https://doi.org/10.23637/ERADOC-1-31>

80/R/BE/10

SPRING BEANS

RATES AND TIMES OF APPLYING ENTOMOPHTHORA

Object: To study the effects of rates and times of applying the aphid-pathogenic fungus *Entomophthora aphidis* on the incidence of black aphids, *Aphis fabae*, and on the yield of s. beans - Gt. Knott II.

Sponsor: N. Wilding.

Design: 3 randomised blocks of 7 plots.

Whole plot dimensions: 2.67 x 2.13.

Treatments:

APH CONT                      Chemical and biological aphid control:

NONE                              None

Pirimicarb at 0.14 kg in 340 l:

PIRIM E                          Applied early, on 6 June 1980

PIRIM L                          Applied later, on 23 June

*E. aphidis* applied as a powder of mummified aphids:

E APH1 E                          Applied at 0.5 mg per plant early, on 6 June

E APH1 L                          Applied at 0.5 mg per plant later, on 21 June

E APH2 E                          Applied at 5.0 mg per plant early, on 6 June

E APH2 L                          Applied at 5.0 mg per plant later, on 21 June

NOTE: Basal irrigation was applied as follows (mm water):

27 May      25

6 June      6

8 June      19

9 June      12

13 June     12

Total      74

Basal applications: Manures: Chalk at 7.5 t. Weedkillers: Trietazine and simazine (as 'Rental SC' at 2.5 l) in 250 l.

Seed: Minden, sown at 150 kg.

Cultivations, etc.: - Chalk applied: 8 Oct, 1979. Ploughed: 29 Nov.

Spring-tine cultivated: 1 Mar, 1980 and 3 Mar. Seed sown: 3 Mar.

Weedkillers applied: 21 Mar. Harvested by hand: 15 Sept. Previous crops: W. wheat 1978, s. barley 1979.

NOTE: Visual estimates of aphid numbers were made weekly in June and July and samples of 50 live aphids per plot were examined for infection with *Entomophthora* and parasites.

80/R/BE/10

GRAIN TONNES/HECTARE

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

APH CONT	NONE	PIRIM E	PIRIM L E	APH1 E E	APH1 L E	APH2 E E	APH2 L	MEAN
	4.10	5.15	4.82	4.32	4.08	4.64	4.35	4.49

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

TABLE	APH CONT
-----	-----
SED	0.455

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

STRATUM	DF	SE	CV%
BLOCK.WP	12	0.558	12.4

GRAIN MEAN DM% 89.8

PLOT AREA HARVESTED 0.00024