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Yields of the Field Experiments 1974

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74/W/CS/55 Fumigation and N - Beans

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74/W/CS/55

FUMIGATION AND N

Object: To study cumulative effects of dazomet and nitrogen fertiliser on pathogens and yield of spring beans grown continuously - Woburn Butt Purlong.

Sponsors: J. McEwen, G.A. Salt, D. Hornby.

The sixth year, spring beans.

For previous years see 69/W/BE/1(t) and 70-73/W/CS/55.

Design: 3 blocks of 6 plots.

Whole plot dimensions: 2.13 x 4.27. Area harvested: 0.00020.

Treatments: All combinations of:-

1. Dazomet (kg per annum) cumulative 1969-74:	DAZOMET
None	0
450	450
2. Nitrogen fertiliser (kg N per annum) cumulative 1969-74:	N
None	0
126	126
252	252

Basal applications: Manures: (0:14:28) at 400 kg, placement drilled.

Weedkiller: Paraquat at 0.56 kg ion in 370 l. Insecticide:

Demeton-s-methyl at 0.25 kg in 340 l.

Seed: Minor, sown at 200 kg.

Cultivations, etc.: Paraquat applied: 13 Sept, 1973. Ploughed: 12 Oct.

Dazomet applied, rotary cultivated: 18 Oct. Ploughed: 2 Jan, 1974.

Spring-tine cultivated with crumbler, seed sown: 7 Mar. First half

N applied: 2 Apr. Second half N applied: 14 May. Insecticide applied on two occasions: 4 June, 11 July. Hand harvested: 17 Sept.

74/W/CS/55

- NOTES: (1) Soil samples were taken for counts of ectoparasitic nematodes.
 (2) Plant samples were taken for observation of fungal pathogens.
 (3) Counts were made of number of stems and pods before harvest.
 (4) 1000 grain weights and % nitrogen in grain were determined.

Standard error per plot.

Grain: tonnes/hectare: 0.323 or 14.5% (10 d.f.)

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	N			
	0	126	252	Mean
DAZOMET				
0	2.28	1.71	1.69	1.89
450	1.93	2.71	3.03	2.56
Mean	2.11	2.21	2.36	2.23

STANDARD ERRORS OF DIFFERENCES

DAZOMET	N	DAZOMET N
0.152	0.186	0.263

Mean D.M.% 80.5