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73/W/CS/55 - Fumigation & N - Beans

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73/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 Furlong.

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

The fifth year, spring beans.

For previous years see 69/W/BE/1(t) and 70-72/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 1969-73:	DAZOMET
None	0
450	450
2. Nitrogen fertiliser (kg N per annum) cumulative 1969-73:	N
None	0
126	126
252	252

Basal applications: Manures: (0:14:28) at 370 kg, placement drilled.

Insecticide: Demeton-s-methyl at 0.25 kg in 290 l.

Seed: Minor, sown at 190 kg.

Cultivations, etc.: Ploughed: 10 Oct, 1972. Dazomet applied, all plots rotary cultivated twice: 12 Oct. Rolled: 13 Oct. Ploughed second time: 27 Dec. Seed sown: 27 Feb, 1973. First half N applied: 13 Mar. Second half N applied: 15 May. Insecticide applied: 26 June. Hand harvested: 6 Sept.

- 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: 0.371 or 12.8% (10 d.f.)

73/W/CS/55

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	N			
	0	126	252	Mean
DAZOMET				
0	2.62	2.29	2.81	2.57
450	2.94	3.43	3.32	3.23
Mean	2.78	2.86	3.07	2.90

STANDARD ERRORS OF DIFFERENCES

DAZOMET	N	DAZOMET
		N
0.175	0.214	0.303

Mean D.M. % 87.4