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71/W/CS/51 Autumn and Spring Fumigants - Potatoes

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71/W/CS/51

AUTUMN AND SPRING FUMIGANTS

Object: To study the effects of rates and methods of applying dazomet on *Heterodera rostochiensis* and yield of potatoes grown continuously for two years (ignoring times and methods of application in 1970) - Butt Close, Woburn.

The second year, potatoes.

For previous year see 70/W/CS/51(t).

Design: 4 blocks of 8 plots.

Whole plot dimensions: 2.84 x 6.10. Area harvested: 0.00087.

Treatments: Nematicides:-

1970	1971	
None	None	(O) O
336 kg dazomet	336 kg dazomet before ploughing	(D) D2
336 kg dazomet	336 kg dazomet before ploughing, 168 kg after ploughing	(D) D2+1
336 kg dazomet	168 kg dazomet before ploughing, 168 kg after ploughing	(D) D1+1
336 kg dazomet	168 kg dazomet before ploughing, 168 kg after ploughing but ridged in autumn	(D) D1+1R
336 kg 'Telone'	168 kg dazomet before ploughing, 168 kg after ploughing	(T) D1+1
336 kg 'Telone'	168 kg dazomet before ploughing, 168 kg after ploughing rolled flat after ploughing	(T) D1+1F

Each application of dazomet (1971) was rotary cultivated in.

Basal applications: 1255 kg (13:13:20). Weedkiller: Linuron at 1.12 kg in 37l l. Fungicide with insecticide: Mancozeb at 1.34 kg and demeton-s-methyl at 246 ml in 416 l. Fungicide: Mancozeb at 1.34 kg in 37l l.

Cultivations, etc.: First dazomet treatments applied all plots, rotary cultivated, ploughed: 19 Oct, 1970. Second dazomet treatments applied and these plots only rotary cultivated, R plots ridged up, F plots rolled: 20 Oct. Fertiliser applied, potatoes planted, inter-row rotary cultivated and ridged up: 7 Apr, 1971. Weedkiller applied: 5 May. Fungicide with insecticide applied: 28 June. Fungicide applied: 13 Aug. Haulm destroyed mechanically: 17 Sept. Sprayed with undiluted BOV at 225 l: 20 Sept. Potatoes lifted: 5 Oct. Variety: Majestic.

NOTE: Soil samples were taken after harvest at 20.3 cm and 61.0 cm for nematode counts.

71/W/CS/51

Standard error per plot.

Total tubers, tonnes/hectare: 4.29 or 12.0% (21 d.f.)

SUMMARY OF RESULTS

(O)O	(D)D2	(D)D2+1	(D)D1+1	(D)D1+1R	(T)D1+1	(T)D1+1F	Mean
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TOTAL TUBERS: TONNES/HECTARE

(±1.52)				(±2.15)			
10.3	41.5	51.4	39.1	38.6	47.2	48.0	35.8

% WARE: 3.81 CM (1.5 INCH) RIDDLE

62.4	90.2	94.1	91.4	89.7	92.4	93.5	84.5
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