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Numerical Results of the Field Experiments 1970



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70/W/CS/33 Rates of Nematicides Dosage - Sugar Beet After Potatoes

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RATES OF NEMATICIDES DOSAGE

(70/W/CS/33)

The effect of different rates of nematicides on a sequence of crops - Woburn Butt Close 1970. Second year, sugar beet after potatoes.

Design: 3 blocks of 14 plots, split for residual and cumulative nematicides.

Area of each sub plot: 0.0032. Area harvested: 0.0014.

Treatments:

Nematicides were repeated in 1970, applied cumulatively on half-plots of whole plots treated in 1969 (C). The half plots untreated in 1970 tested residues of nematicides applied in 1969 (R). Rates of nematicides:-

	1969	1970	
None	None		(0)
780 lb methyl bromide to whole area in spring	780 lb methyl bromide to whole area in spring		(M)
80 lb DD applied at base of ridges	100 lb DD applied to whole area		(D1)
160 lb DD base of ridges	200 lb DD in autumn		(D2)
320 lb DD in spring	400 lb DD in autumn		(D3)
400 lb DD injected and rotary cultivated in autumn	400 lb DD		(D4)
60 lb 'Telone' applied at base of ridges	75 lb 'Telone' applied to whole area		(T1)
120 lb 'Telone' base of ridges	150 lb 'Telone' in autumn		(T2)
240 lb 'Telone' in spring	300 lb 'Telone'	in autumn	(T3)
220 lb 'Telone' applied in autumn	300 lb 'Telone'		(T4)
100 lb dazomet applied in rows in spring	100 lb dazomet applied to whole area		(Z1)
200 lb dazomet broadcast in autumn	200 lb dazomet in autumn		(Z2)
300 lb dazomet broadcast in autumn	300 lb dazomet	in autumn	(Z3)
400 lb dazomet broadcast in autumn	400 lb dazomet		(Z4)

Basal applications: 960 lb (13:13:20). Weedkiller: Phenmedipham ('Betanal' at 5 pts in 20 gals). Insecticide: Demeton-s-methyl at 3.5 oz in 25 gals.

Cultivations: Ploughed: 11 Oct, 1969. DD and 'Telone' applied, rotary cultivated in: 16 Oct. Dazomet applied, rotary cultivated in twice: 17 Oct. Methyl bromide applied under gas tight sheet: 19 Mar, 1970. Gas tight sheet removed: 3 Apr. Basal NPK applied: 14 Apr. Power

70/W/CS/33

harrowed, seed drilled at 5 lb: 20 Apr. Weedkiller applied: 15 May. Singled: 26 May. Insecticide applied: 22 June. Lifted: 17 - 18 Nov. Variety: Klein E.

- NOTES: (1) For previous year's results see 'Results' 69/W/CS/33.
(2) Soil samples were taken before applying treatments, at planting and after harvest for cyst counts.

Standard errors per plot.

Roots (washed), tons:	Whole plot: 1.282 or 5.8% (26 d.f.)
	Sub plot: 1.692 or 7.6% (28 d.f.)
Total sugar, cwt:	Whole plot: 5.46 or 7.0% (26 d.f.)
	Sub plot: 6.68 or 8.6% (28 d.f.)

70/W/CS/33

SUMMARY OF RESULTS

SUGAR BEET

	ROOTS (WASHED): TONS			SUGAR %			TOTAL SUGAR: CWT		
	R	C	Mean	R	C	Mean	R	C	Mean
	(1) and (2) (± 0.740)						(3) and (4) (± 3.15)		
O			21.86			17.0			74.5
M	23.72	22.74	23.23	17.3	17.2	17.2	81.9	78.2	80.1
D1	22.48	21.76	22.12	17.5	17.6	17.5	78.7	76.6	77.6
D2	19.65	22.02	20.84	17.1	17.0	17.1	67.4	75.0	71.2
D3	21.56	21.30	21.43	17.6	17.1	17.3	75.8	73.1	74.4
D4	23.87	22.33	23.10	17.7	17.2	17.5	84.5	77.0	80.8
T1	21.50	21.56	21.53	17.3	17.3	17.3	74.5	74.5	74.5
T2	20.42	21.76	21.09	17.7	17.2	17.5	72.3	75.2	73.7
T3	21.45	21.45	21.45	17.6	17.4	17.5	75.7	74.7	75.2
T4	23.36	22.58	22.97	17.5	17.2	17.3	81.7	77.7	79.7
Z1	21.04	21.76	21.40	17.6	17.3	17.5	74.2	75.5	74.8
Z2	23.00	24.69	23.85	17.5	17.3	17.4	80.3	85.3	82.8
Z3	23.36	24.28	23.82	17.8	17.7	17.8	83.4	85.8	84.6
Z4	23.00	23.20	23.10	17.6	17.2	17.4	81.2	79.7	80.5
Mean	22.18	22.42	22.27*	17.5	17.3	17.4*	77.8	77.6	77.5*
	(± 0.271)						(± 1.07)		

(1) (± 1.013) (3) (± 4.17) For use in vertical and diagonal comparisons only

(2) (± 0.977) (4) (± 3.86) For use in horizontal and interaction comparisons only

* General mean