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# Numerical Results of the Field Experiments 1968

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## 68/C/34 Fumigants and Irrigation - Barley

### Rothamsted Research

Rothamsted Research (1970) *68/C/34 Fumigants and Irrigation - Barley* ; Numerical Results Of The Field Experiments 1968, pp 257 - 260 - DOI: <https://doi.org/10.23637/ERADOC-1-58>

68/c/34.1

## FUMIGANTS AND IRRIGATION

(WCR)

The effect of fumigants on the control of *Pratylenchus* spp. in barley - Woburn Butt Close Series III, 1st year.

Design: 3 blocks of 4 plots, with fumigants on quarter plots and nitrogen on eighth plots with split plot confounding.

Area of each sub plot: 0.0050. Area harvested: 0.0020.

Treatments: All combinations of:-

Whole plots: 1. Irrigation: None (0), full irrigation (I).

Quarter plots: 2. Fumigants: None (0), chloropicrin at 400 lb injected at 12 inch spacings (C), D-D at 33 1/2 gals injected at 12 inch spacings (D), Temik at 6 lb a.i. (60 lb granules) combine drilled (T).

Eighth plots: 3. Nitrogen: None (N0), 0.4 (N1), 0.8 (N2), 1.2 (N3) cwt N as 'Nitro-Chalk'.

Basal applications: 270 lb (0:20:20). Weedkiller: Ioxynil/mecoprop (Acril C at 5 pts in 25 gals).

Cultivations, etc.: Ploughed: 19 Sept, 1967. D-D injected: 30 Oct. Chloropicrin injected: 7 Nov. Magnesian limestone applied at 22 1/2 cwt: 8 Nov. Basal PK applied: 4 Mar, 1968. Seed at 140 lb, and Temik combine drilled: 5 Mar, 'Nitro-Chalk' applied: 11 Mar. Weedkiller applied: 26 Apr. Irrigation applied at 0.5 inches: 14 June, and 0.75 inches: 20 June. Combine harvested: 21 Aug. Variety: Maris Badger. Previous crops: Spring wheat 1966, barley 1967.

NOTE: Crop and soil samples taken at intervals through the growing season for nematode counts.

Standard error per plot (pooled).

Grain: 4.05 or 16.0% (62 d.f.)

68/C/34.2

SUMMARY OF RESULTS

GRAIN

	O	C	D	T	Mean
	(±1.17)				(±0.58)
O	25.6	30.8	23.6	22.3	25.6
I	25.1	29.8	23.2	21.9	25.0
Mean (±0.83)	25.4	30.3	23.4	22.1	25.3
	NO	N1	N2	N3	
	(±1.17)				
O	13.6	29.1	30.9	28.6	
I	14.2	28.4	29.7	27.8	
	(±1.65)				
O	10.0	27.4	32.6	31.4	
C	29.4	32.1	30.8	28.9	
D	9.3	29.1	29.4	25.9	
T	6.9	26.5	28.5	26.7	
Mean (±0.83)	13.9	28.8	30.3	28.2	

Mean D.M. %: 82.9

68/c/34.3

STRAW					
	O	C	D	T	Mean
O	25.2	32.8	26.5	23.9	27.1
I	28.3	33.0	26.1	25.4	28.2
Mean	26.8	32.9	26.3	24.7	27.7
	NO	N1	N2	N3	
O	17.2	31.5	33.2	26.6	
I	17.8	32.4	33.8	28.9	
O	11.2	28.5	36.5	30.9	
C	31.4	36.4	33.9	29.9	
D	15.2	34.0	31.8	24.3	
T	12.2	29.0	31.7	25.8	
Mean	17.5	32.0	33.5	27.7	

Mean D.M. %: 86.9

