

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1972

[Full Table of Content](#)



72/W/CS/52 Fumigants, Temik and N - S. Wheat

Rothamsted Research

Rothamsted Research (1973) *72/W/CS/52 Fumigants, Temik and N - S. Wheat ; Yields Of The Field Experiments 1972*, pp 198 - 201 - DOI: <https://doi.org/10.23637/ERADOC-1-62>

72/W/CS/52

FUMIGANTS, TEMIK AND N

Object: To study cumulative and residual effects of dazomet, formalin and aldicarb, at a range of nitrogen levels, on nematodes and yield of spring wheat - Woburn Butt Close.

Sponsor: T.D. Williams.

The second year, spring wheat.

For previous year see 71/W/CS/52(t).

Design: 4 blocks of 12 plots, split into 2.

Whole plot dimensions: 2.13 x 9.14. Area harvested: 0.00059.

Treatments: All combinations of:-

Whole plots:

1. Fumigants: None (0), dazomet 380 kg (D), formalin (38% formaldehyde) 2990 l (F), aldicarb ('Temik') 9 kg (T).
2. Nitrogen cumulatively on 1971: 63, 126, 189 kg N 'Nitro-Chalk'.

Sub plots:

3. Years of application of fumigants: 1971 only, none 1972 (R). 1971 and 1972 cumulatively (C).

Basal applications: 390 kg (0:20:20) combine drilled. Weedkillers: Paraquat at 0.56 kg ion in 280 l. Ioxynil at 0.53 kg and mecoprop at 1.6 kg in 280 l.

Seed: Kleiber sown at 190 kg.

Cultivations, etc.: Paraquat applied: 10 Sept, 1971. Ploughed: 21 Sept. Dazomet applied, all plots rotary cultivated: 29 Sept. Formalin applied: 16 Nov. Ploughed: 14 Feb, 1972. Aldicarb applied, seed combine drilled: 15 Mar. N applied: 17 Mar. Ioxynil and mecoprop applied: 3 May. Combine harvested: 1 Sept.

- NOTE: 1. Plant samples were taken in May for counts of root invasion by nematodes and fresh top weights.
2. Crop samples were taken in June for N percentages and roots were examined for soil pathogens.
3. Leaf samples were taken in June for copper analyses.

Standard errors per plot. Grain, tonnes/hectare:

Whole plot: 0.338 or 20.3% (33 d.f.)
Sub plot: 0.376 or 22.6% (39 d.f.)

72/W/CS/52

APPLICATION	R				C		
FUMIGANT	O	D	F	T	D	F	T
N: KG/HA	GRAIN: TONNES/HECTARE						
63	1.58	1.84	1.74	2.32	1.94	2.03	3.49
126	1.34	1.28	1.27	1.79	1.51	1.27	3.12
189	1.27	1.03	1.31	1.42	1.46	1.27	1.51

STANDARD ERRORS OF DIFFERENCES

	N FUMIGANT APPLICATION
O	0.208
Excluding O	0.294
O v any of remainder	0.254

Unless same level of
N and FUMIGANT

Excluding O	0.242
-------------	-------

N: KG/HA	STRAW: TONNES/HECTARE						
63	2.75	2.46	2.62	3.06	2.47	2.83	3.41
126	2.31	2.54	2.08	2.72	2.53	2.24	3.63
189	2.28	2.13	2.13	2.28	2.10	2.26	2.47

