

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.



Yields of the Field Experiments 1987

[Full Table of Content](#)



87/R/CS/140 Chemical Reference Plots - S. Barley

Rothamsted Research

Rothamsted Research (1988) *87/R/CS/140 Chemical Reference Plots - S. Barley ; Yields Of The Field Experiments 1987*, pp 90 - 94 - DOI: <https://doi.org/10.23637/ERADOC-1-37>

87/R/CS/140

CHEMICAL REFERENCE PLOTS

Object: To study the persistence in soil of agricultural chemicals applied annually, singly and in combination and their effects on soil microflora and on yield of continuous s. barley - Long Hoos V 3.

Sponsors: R.H. Bromilow, R. Macdonald.

The 14th year, s. barley.

For previous years see 74-86/R/CS/140.

Design: Single replicate of 32 plots.

Whole plot dimensions: 4.06 x 4.57.

Treatments, applied cumulatively except as stated:

All combinations of:-

1. WEEDKLLR	Weedkiller in autumn:
NONE	None
GLYPHOS	Glyphosate at 1.4 kg to barley stubble each autumn from 1979 to 1984 at 0.72 kg in 1985 and at 0.54 kg in 1986
2. FUNGCIDE[1]	Fungicide in autumn:
NONE	None
TRIADIM	Triadimefon at 0.25 kg in autumn 1981, 1982, 1984, 1985 and 1986, 0.28 kg in autumn 1983
3. FUNGCIDE[2]	Fungicide in spring:
NONE	None
BENOMYL	Benomyl at 4 kg to seedbed
4. INSCTCDE	Insecticide:
NONE	None
CHLORFEN	Chlorfenvinphos at 2 kg to the seedbed
5. NEMACIDE	Nematicide:
NONE	None
ALDICARB	Aldicarb at 6 kg to the seedbed

NOTE: Glyphosate and triadimefon were applied in 220 l on 22 Sept, 1986 and 13 Oct respectively. Other treatments were applied on 19 Mar, 1987.

87/R/CS/140

Basal applications: Manures: (0:18:36) at 1060 kg, 'Nitro-Chalk' at 550 kg. Weedkillers: Bentazone at 0.80 kg, dichlorprop at 1.08 kg, and MCPA at 0.64 kg in 220 l applied with the fungicide. Fungicide: Tridemorph at 0.52 kg.

Seed: Klaxon, seed not dressed, sown at 160 kg.

Cultivations, etc.: - PK applied: 16 Sept, 1986. Rotary cultivated: 13 Oct. Ploughed: 26 Nov. Spring-tine cultivated, seedbed treatments applied, rotary harrowed, seed sown and N applied: 19 Mar, 1987. Weedkillers and fungicide applied: 6 May. Combine harvested: 21 Aug.

GRAIN TONNES/HECTARE

***** Tables of means *****

FUNGCIDE[1]	NONE	TRIADIM	Mean
WEEDKLLR			
NONE	5.26	5.40	5.33
GLYPHOS	5.13	5.24	5.18
Mean	5.19	5.32	5.26
FUNGCIDE[2]	NONE	BENOMYL	Mean
WEEDKLLR			
NONE	5.42	5.24	5.33
GLYPHOS	5.26	5.10	5.18
Mean	5.34	5.17	5.26
FUNGCIDE[2]	NONE	BENOMYL	Mean
FUNGCIDE[1]			
NONE	5.35	5.04	5.19
TRIADIM	5.34	5.30	5.32
Mean	5.34	5.17	5.26
INSCTCDE	NONE	CHLORFEN	Mean
WEEDKLLR			
NONE	5.31	5.35	5.33
GLYPHOS	5.26	5.10	5.18
Mean	5.29	5.23	5.26
INSCTCDE	NONE	CHLORFEN	Mean
FUNGCIDE[1]			
NONE	5.31	5.08	5.19
TRIADIM	5.26	5.37	5.32
Mean	5.29	5.23	5.26

87/R/CS/140

GRAIN TONNES/HECTARE

***** Tables of means *****

INSCTCDE FUNGicide[2]	NONE	CHLORFEN	Mean
NONE	5.33	5.36	5.34
BENOMYL	5.24	5.09	5.17
Mean	5.29	5.23	5.26
NEMACIDE WEEDKLLR	NONE	ALDICARB	Mean
NONE	5.45	5.21	5.33
GLYPHOS	5.21	5.15	5.18
Mean	5.33	5.18	5.26
NEMACIDE FUNGicide[1]	NONE	ALDICARB	Mean
NONE	5.23	5.16	5.19
TRIADIM	5.42	5.21	5.32
Mean	5.33	5.18	5.26
NEMACIDE FUNGicide[2]	NONE	ALDICARB	Mean
NONE	5.46	5.23	5.34
BENOMYL	5.20	5.14	5.17
Mean	5.33	5.18	5.26
NEMACIDE INSCTCDE	NONE	ALDICARB	Mean
NONE	5.38	5.19	5.29
CHLORFEN	5.27	5.18	5.23
Mean	5.33	5.18	5.26
WEEDKLLR	FUNGicide[2]	NONE	BENOMYL
NONE	FUNGicide[1]	NONE	5.11
	NONE	5.41	5.11
GLYPHOS	TRIADIM	5.44	5.36
	NONE	5.29	4.96
	TRIADIM	5.23	5.24
WEEDKLLR	INSCTCDE	NONE	CHLORFEN
NONE	FUNGicide[1]	NONE	5.30
	NONE	5.22	5.30
GLYPHOS	TRIADIM	5.40	5.40
	NONE	5.39	4.86
	TRIADIM	5.13	5.34

87/R/CS/140

GRAIN TONNES/HECTARE

***** Tables of means *****

WEEDKLLR	FUNGCIDE[2]	INSCTCDE	NONE	CHLORFEN
NONE	BENOMYL	NONE	5.40	5.45
		BENOMYL	5.22	5.26
GLYPHOS	BENOMYL	NONE	5.26	5.27
		BENOMYL	5.27	4.93
FUNGCIDE[1]	FUNGCIDE[2]	INSCTCDE	NONE	CHLORFEN
NONE	BENOMYL	NONE	5.39	5.31
		BENOMYL	5.23	4.85
TRIADIM	BENOMYL	NONE	5.26	5.41
		BENOMYL	5.26	5.34
WEEDKLLR	FUNGCIDE[1]	NEMACIDE	NONE	ALDICARB
NONE	TRIADIM	NONE	5.34	5.19
		TRIADIM	5.56	5.24
GLYPHOS	TRIADIM	NONE	5.13	5.13
		TRIADIM	5.29	5.18
WEEDKLLR	FUNGCIDE[2]	NEMACIDE	NONE	ALDICARB
NONE	BENOMYL	NONE	5.55	5.29
		BENOMYL	5.34	5.14
GLYPHOS	BENOMYL	NONE	5.36	5.17
		BENOMYL	5.06	5.14
FUNGCIDE[1]	FUNGCIDE[2]	NEMACIDE	NONE	ALDICARB
NONE	BENOMYL	NONE	5.50	5.20
		BENOMYL	4.96	5.11
TRIADIM	BENOMYL	NONE	5.41	5.26
		BENOMYL	5.43	5.17
WEEDKLLR	INSCTCDE	NEMACIDE	NONE	ALDICARB
NONE	CHLORFEN	NONE	5.42	5.20
		CHLORFEN	5.47	5.23
GLYPHOS	CHLORFEN	NONE	5.35	5.18
		CHLORFEN	5.07	5.13
FUNGCIDE[1]	INSCTCDE	NEMACIDE	NONE	ALDICARB
NONE	CHLORFEN	NONE	5.35	5.26
		CHLORFEN	5.11	5.05
TRIADIM	CHLORFEN	NONE	5.42	5.11
		CHLORFEN	5.43	5.32

87/R/CS/140

GRAIN TONNES/HECTARE

***** Tables of means *****

FUNGCIDE[2]	NEMACIDE	NONE	ALDICARB
NONE	INSTCDE		
	NONE	5.43	5.23
	CHLORFEN	5.49	5.23
BENOMYL	NONE	5.34	5.15
	CHLORFEN	5.06	5.13

*** Standard errors of differences of means ***

Margins of two factor tables	0.151
Two factor tables	0.214
Three factor tables	0.303

***** Stratum standard errors and coefficients of variation *****

Stratum	d.f.	s.e.	cv%
WP	6	0.428	8.1

GRAIN MEAN DM% 87.6

PLOT AREA HARVESTED 0.00075