

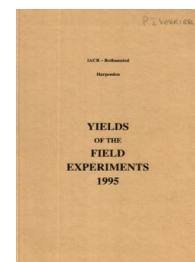
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95/R/CS/140 Chemical Reference Plots - S. Barley

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95/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, A.A. Evans, P.H. Nicholls.

The 22nd year, s. barley.

For previous years see 74-94/R/CS/140.

Design: Single replicate of 32 plots.

Whole plot dimensions: 4.06 x 4.57.

Treatments: Applied cumulatively every year until 1993, none since.

All combinations of:-

1. **WEEDKLLR** Weedkiller in autumn:
(NONE) None
(GLYPHOS) Glyphosate to barley stubble each autumn
2. **FUNGICIDE[1]** Fungicide in autumn:
(NONE) None
(TRIADIM) Triadimefon in autumn
3. **FUNGICIDE[2]** Fungicide in spring:
(NONE) None
(BENOMYL) Benomyl to the seedbed
4. **INSCTCDE** Insecticide:
(NONE) None
(CHLORFEN) Chlorfenvinphos to the seedbed
5. **NEMACIDE** Nematicide:
(NONE) None
(ALDICARB) Aldicarb to the seedbed

Experimental diary:

- 09-Aug-94 : B : Straw baled.
- 15-Nov-94 : B : Stubble topped.
- 01-Dec-94 : B : Ploughed.
- 23-Mar-95 : B : Heavy spring-tine cultivated. Rotary harrowed, Alexis, undressed, drilled at 310 seeds per m².
- 11-May-95 : B : 34.5% N at 435 kg.
- 15-Jun-95 : B : Lorate 20 DF at 30 g in 300 l.

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Experimental diary:

15-Jun-95 : B : Starane 2 at 0.5 l in 300 l.
08-Aug-95 : B : Combine harvested.

GRAIN TONNES/HECTARE

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

FUNGCIDE [1]	(NONE)	(TRIADIM)	Mean
WEEDKLLR			
(NONE)	3.87	3.78	3.83
(GLYPHOS)	3.65	3.91	3.78
Mean	3.76	3.85	3.80

FUNGCIDE [2]	(NONE)	(BENOMYL)	Mean
WEEDKLLR			
(NONE)	3.86	3.80	3.83
(GLYPHOS)	3.61	3.95	3.78
Mean	3.73	3.87	3.80

FUNGCIDE [2]	(NONE)	(BENOMYL)	Mean
FUNGCIDE [1]			
(NONE)	3.82	3.69	3.76
(TRIADIM)	3.64	4.05	3.85
Mean	3.73	3.87	3.80

INSTCDE	(NONE)	(CHLORFEN)	Mean
WEEDKLLR			
(NONE)	3.95	3.71	3.83
(GLYPHOS)	3.82	3.73	3.78
Mean	3.89	3.72	3.80

INSTCDE	(NONE)	(CHLORFEN)	Mean
FUNGCIDE [1]			
(NONE)	3.69	3.83	3.76
(TRIADIM)	4.09	3.61	3.85
Mean	3.89	3.72	3.80

INSTCDE	(NONE)	(CHLORFEN)	Mean
FUNGCIDE [2]			
(NONE)	3.74	3.73	3.73
(BENOMYL)	4.04	3.71	3.87
Mean	3.89	3.72	3.80

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GRAIN TONNES/HECTARE

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

NEMACIDE	(NONE) (ALDICARB)		Mean
WEEDKLLR			
(NONE)	3.80	3.86	3.83
(GLYPHOS)	3.73	3.82	3.78
Mean	3.77	3.84	3.80
NEMACIDE	(NONE) (ALDICARB)		Mean
FUNGCIDE [1]			
(NONE)	3.76	3.76	3.76
(TRIADIM)	3.77	3.92	3.85
Mean	3.77	3.84	3.80
NEMACIDE	(NONE) (ALDICARB)		Mean
FUNGCIDE [2]			
(NONE)	3.67	3.80	3.73
(BENOMYL)	3.86	3.88	3.87
Mean	3.77	3.84	3.80
NEMACIDE	(NONE) (ALDICARB)		Mean
INSCTCDE			
(NONE)	3.79	3.99	3.89
(CHLORFEN)	3.74	3.70	3.72
Mean	3.77	3.84	3.80
WEEDKLLR	FUNGCIDE [2]	(NONE) (BENOMYL)	
(NONE)	(NONE)	4.00	3.74
	(TRIADIM)	3.72	3.85
(GLYPHOS)	(NONE)	3.65	3.65
	(TRIADIM)	3.57	4.25
WEEDKLLR	INSCTCDE	(NONE) (CHLORFEN)	
(NONE)	(NONE)	3.90	3.85
	(TRIADIM)	4.00	3.57
(GLYPHOS)	(NONE)	3.47	3.82
	(TRIADIM)	4.17	3.64
WEEDKLLR	INSCTCDE	(NONE) (CHLORFEN)	
(NONE)	(NONE)	3.80	3.92
	(BENOMYL)	4.10	3.50
(GLYPHOS)	(NONE)	3.67	3.54
	(BENOMYL)	3.97	3.92

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GRAIN TONNES/HECTARE

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

		INSCTCDE	(NONE)	(CHLORFEN)
FUNGCIDE [1]	FUNGCIDE [2]			
(NONE)	(NONE)		3.58	4.07
	(BENOMYL)		3.80	3.59
(TRIADIM)	(NONE)		3.90	3.39
	(BENOMYL)		4.28	3.82
		NEMACIDE	(NONE)	(ALDICARB)
WEEDKLLR	FUNGCIDE [1]			
(NONE)	(NONE)		3.82	3.92
	(TRIADIM)		3.77	3.80
(GLYPHOS)	(NONE)		3.69	3.60
	(TRIADIM)		3.77	4.05
		NEMACIDE	(NONE)	(ALDICARB)
WEEDKLLR	FUNGCIDE [2]			
(NONE)	(NONE)		3.80	3.92
	(BENOMYL)		3.80	3.79
(GLYPHOS)	(NONE)		3.54	3.67
	(BENOMYL)		3.92	3.97
		NEMACIDE	(NONE)	(ALDICARB)
FUNGCIDE [1]	FUNGCIDE [2]			
(NONE)	(NONE)		3.80	3.85
	(BENOMYL)		3.72	3.67
(TRIADIM)	(NONE)		3.54	3.74
	(BENOMYL)		4.00	4.10
		NEMACIDE	(NONE)	(ALDICARB)
WEEDKLLR	INSCTCDE			
(NONE)	(NONE)		3.93	3.97
	(CHLORFEN)		3.67	3.75
(GLYPHOS)	(NONE)		3.65	4.00
	(CHLORFEN)		3.82	3.64
		NEMACIDE	(NONE)	(ALDICARB)
FUNGCIDE [1]	INSCTCDE			
(NONE)	(NONE)		3.70	3.67
	(CHLORFEN)		3.82	3.85
(TRIADIM)	(NONE)		3.87	4.30
	(CHLORFEN)		3.67	3.54
		NEMACIDE	(NONE)	(ALDICARB)
FUNGCIDE [2]	INSCTCDE			
(NONE)	(NONE)		3.68	3.80
	(CHLORFEN)		3.67	3.80
(BENOMYL)	(NONE)		3.90	4.17
	(CHLORFEN)		3.82	3.59

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GRAIN TONNES/HECTARE

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

	FUNGCIDE [1]	(NONE)		(TRIADIM)	
WEEDKLLR	FUNGCIDE [2]	(NONE)	(BENOMYL)	(NONE)	(BENOMYL)
(NONE)		4.00	3.74	3.72	3.85
(GLYPHOS)		3.65	3.65	3.57	4.25
	FUNGCIDE [1]	(NONE)		(TRIADIM)	
WEEDKLLR	INSCTCDE	(NONE)	(CHLORFEN)	(NONE)	(CHLORFEN)
(NONE)		3.90	3.85	4.00	3.57
(GLYPHOS)		3.47	3.82	4.17	3.64
	FUNGCIDE [2]	(NONE)		(BENOMYL)	
WEEDKLLR	INSCTCDE	(NONE)	(CHLORFEN)	(NONE)	(CHLORFEN)
(NONE)		3.80	3.92	4.10	3.50
(GLYPHOS)		3.67	3.54	3.97	3.92
	FUNGCIDE [2]	(NONE)		(BENOMYL)	
FUNGCIDE [1]	INSCTCDE	(NONE)	(CHLORFEN)	(NONE)	(CHLORFEN)
(NONE)		3.58	4.07	3.80	3.59
(TRIADIM)		3.90	3.39	4.28	3.82
	FUNGCIDE [1]	(NONE)		(TRIADIM)	
WEEDKLLR	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.82	3.92	3.77	3.80
(GLYPHOS)		3.69	3.60	3.77	4.05
	FUNGCIDE [2]	(NONE)		(BENOMYL)	
WEEDKLLR	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.80	3.92	3.80	3.79
(GLYPHOS)		3.54	3.67	3.92	3.97
	FUNGCIDE [2]	(NONE)		(BENOMYL)	
FUNGCIDE [1]	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.80	3.85	3.72	3.67
(TRIADIM)		3.54	3.74	4.00	4.10
	INSCTCDE	(NONE)		(CHLORFEN)	
WEEDKLLR	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.93	3.97	3.67	3.75
(GLYPHOS)		3.65	4.00	3.82	3.64
	INSCTCDE	(NONE)		(CHLORFEN)	
FUNGCIDE [1]	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.70	3.67	3.82	3.85
(TRIADIM)		3.87	4.30	3.67	3.54
	INSCTCDE	(NONE)		(CHLORFEN)	
FUNGCIDE [2]	NEMACIDE	(NONE)	(ALDICARB)	(NONE)	(ALDICARB)
(NONE)		3.68	3.80	3.67	3.80
(BENOMYL)		3.90	4.17	3.82	3.59

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GRAIN TONNES/HECTARE

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

Margins of two factor tables	0.202
Two factor tables	0.285
Three factor tables	0.404

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

Stratum	d.f.	s.e.	cv%
WP	6	0.571	15.0

GRAIN MEAN DM% 89.9

PLOT AREA HARVESTED 0.00105