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Yields of the Field Experiments 1994

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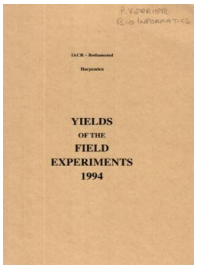

94/R/CS/323 Cereal Sequence and Take-all - W. Barley, W. Oats, W. Triticale, W. Wheat, S. Barley

Rothamsted Research

Rothamsted Research (1995) *94/R/CS/323 Cereal Sequence and Take-all - W. Barley, W. Oats, W. Triticale, W. Wheat, S. Barley ;* Yields Of The Field Experiments 1994, pp 64 - 66 **- DOI: https://doi.org/10.23637/ERADOC-1-49**

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94/R/CS/323

CEREAL SEQUENCES AND TAKE-ALL

Object: To study the effects on take-all (*Gaeumannomyces graminis*) and yield of different cereals grown in various cereal sequences - West Barnfield II.

Sponsors: R.J. Gutteridge, D. Hornby, R.D. Prew.

The seventh year, w. barley, w. oats, w. triticale, w. wheat, s. barley.

For previous years see 88-93/R/CS/323

Design: 3 randomised blocks of 26 plots.

Whole plot dimensions: 3.0 x 10.0.

CROPSEQ Crop sequences (1988 to 1994 respectively):

TTTTTTT
OTTTOTT
TOTTTOT
TTOTTTO
TTTOTTT
WWWWWWW
OWWWOWW
WOWWWOW
WWOWWWO
WWWOWWW
BBBBBBB
OBBBOBB
BOBBBOB
BBOBBBO
BBBOBBB
WTWTWTW
WBWBWBW
TBTBTBT
SBSBSBS
WWTTTWW
WWBBBWW
TTBBBTT
TTWWWTT
BBWWWBB
BBTTTBB
WWSSSWW

W = W. wheat
S = S. barley
B = W. barley
O = W. oats
T = W. triticale

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94/R/CS/323

Experimental diary:

02-Sep-93 : B : PK as (0:18:36) at 300 kg.
09-Sep-93 : B : Ploughed.
23-Sep-93 : B : Spring-tine cultivated.
23-Sep-93 : **T** : **CROPSEQ** W. barley plots: Rotary harrowed, Magie, dressed Cerevax, drilled at 400 seeds per m^2.
24-Sep-93 : **T** : **CROPSEQ** Oats plots: Rotary harrowed, Image, dressed Ceresol, drilled at 350 seeds per m^2.
: **T** : **CROPSEQ** Triticale plots: Rotary harrowed, Lasko, dressed Cerevax, drilled at 400 seeds per m^2.
: **T** : **CROPSEQ** Wheat plots: Rotary harrowed, Mercia, dressed Cerevax, drilled at 380 seeds per m^2.
: B : Glytex at 2.25 kg in 200 l.
08-Mar-94 : **T** : **CROPSEQ** W. barley, oats, triticale and wheat plots: 34.5% N at 87 kg.
16-Mar-94 : **T** : **CROPSEQ** S. barley plots: Rotary harrowed, Klaxon undressed, drilled at 350 seeds per m^2.
12-Apr-94 : **T** : **CROPSEQ** Triticale plots: Hoegrass at 3.0 l with Starane 2 at 0.75 l in 220 l.
14-Apr-94 : **T** : **CROPSEQ** Oats and triticale plots: 34.5% N at 346 kg.
: **T** : **CROPSEQ** W. barley plots: 34.5% N at 428 kg.
: **T** : **CROPSEQ** Wheat plots: 34.5% N at 496 kg.
: **T** : **CROPSEQ** S. barley plots: 34.5% N at 346 kg.
09-May-94 : **T** : **CROPSEQ** W. barley plots: Starane 2 at 0.75 l with Tigress at 2.5 l in 200 l.
31-May-94 : B : Mistral at 0.5 l with Radar at 0.5 l in 200 l.
01-Jun-94 : **T** : **CROPSEQ** S. barley plots: Duplosan New System CMPP at 1.4 l with Oxytril CM at 1.0 l in 200 l.
26-Jul-94 : **T** : **CROPSEQ** W. barley plots: Combine harvested.
02-Aug-94 : **T** : **CROPSEQ** S. barley, wheat, oats and triticale plots: Combine harvested.

NOTE: Plant samples were taken in April, June and July for take-all and eyespot assessments. Soil cores were taken after harvest to assess take-all infectivity.

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94/R/CS/323

GRAIN TONNES/HECTARE

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

CROPSEQ	
TTTTTTT	5.35
OTTTOTT	5.04
TOTTTOT	6.23
TTOTTTO	6.95
TTTOTTT	5.91
WWWWWWW	4.70
OWWWOWW	4.84
WOWWWOW	5.01
WWOWWWO	6.55
WWWOWWW	6.65
BBBBBBB	6.46
OBBBOBB	7.15
BOBBBOB	5.23
BBOBBBO	6.60
BBBOBBB	6.48
WTWTWTW	5.27
WBWBWBW	6.25
TBTBTBT	6.98
SBSBSBS	5.09
WWTTTWW	6.64
WWBBBWW	5.65
TTBBBTT	5.87
TTWWWTT	5.18
BBWWWBB	6.46
BBTTTBB	7.04
WWSSSWW	5.28
Mean	5.96

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

CROPSEQ
0.632

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	50	0.774	13.0

GRAIN MEAN DM% 84.8

PLOT AREA HARVESTED 0.00226

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