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96/W/CS/435 Ryegrass, Wheat Volunteers and Diseases - W. Wheat

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96/W/CS/435

RYEGRASS, WHEAT VOLUNTEERS AND DISEASE

Object: To study how different populations of cereal volunteers and ryegrass sown as a cover crop affect the survival of cereal diseases - Woburn, School Field.

Sponsors: J.F. Jenkyn, R.J. Gutteridge.

The second year, w. wheat.

For previous year see 95/W/CS/435

Design: 4 randomised blocks of 10 x 2 plots.

Whole plot dimensions: 6.0 x 10.0.

Treatments:

1. CROP Crop, seed rate and soil inoculation in 1995:
- (R) Ryegrass at 30 kg
(RW) Ryegrass at 30 kg + wheat at 50 seeds per m²
(RI) Ryegrass at 30 kg + soil inoculated with *Phialophora graminicola*
(RWI) Ryegrass at 30 kg + wheat at 50 seeds per m² + soil inoculated with *P. graminicola*
(M) Mustard at 300 seeds per m²
(MW1) Mustard at 100 seeds per m² + wheat at 4 seeds per m²
(MW2) Mustard at 100 seeds per m² + wheat at 9 seeds per m²
(MW3) Mustard at 100 seeds per m² + wheat at 50 seeds per m²
(MW4) Mustard at 100 seeds per m² + wheat at 200 seeds per m²
(MW5) Mustard at 30 seeds per m² + wheat at 400 seeds per m²
2. CULT Time of ploughing in 1995:
- (PE) Early (12 May)
(PL) Late (17 Aug)

Experimental diary:

- 03-Oct-95 : B : Discd.
10-Oct-95 : B : Rotary harrowed, Hereward, dressed Fonofos Seed Treatment and Beret 050FS, drilled at 375 seeds per m².
20-Nov-95 : B : Panther at 2.0 l in 200 l.
08-Mar-96 : B : 34.5% N at 116 kg.
02-Apr-96 : B : Vytel Manganese at 3.0 l in 300 l.
18-Apr-96 : B : 34.5% N at 348 kg.
30-Apr-96 : B : Starane 2 at 1.0 l with Halo at 1.5 l in 200 l.
06-Jun-96 : B : Halo at 2.0 l with Mallard 750 EC at 0.5 l in 300 l.
16-Aug-96 : B : Combine harvested.

Previous crops: W. and s. rape 1993, w.wheat 1994.

NOTE: Plants were sampled to assess root and stem base diseases in April and July.

96/W/CS/435

GRAIN TONNES/HECTARE

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

CULT CROP	(PE)	(PL)	Mean
(R)	10.16	9.91	10.03
(RW)	9.89	10.63	10.26
(RI)	10.09	10.25	10.17
(RWI)	10.61	9.01	9.81
(M)	9.16	9.72	9.44
(MW1)	10.04	10.07	10.05
(MW2)	10.01	10.04	10.02
(MW3)	9.56	9.85	9.70
(MW4)	9.77	9.70	9.74
(MW5)	9.54	9.46	9.50
Mean	9.88	9.86	9.87

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

CROP	CULT	CROP CULT
0.482	0.215	0.681

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	57	0.963	9.8
GRAIN MEAN DM%	87.9		
PLOT AREA HARVESTED	0.00437		