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89/R/WW/6 Control of Eyespot and Septoria - W. Wheat

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89/R/WW/6

WINTER WHEAT

CONTROL OF EYESPOT AND SEPTORIA

Object: To test effects of different strategies on disease control and yield under different degrees of risk from eyespot and Septoria - Black Horse I N.

Sponsors: A. Goulds, D. Henry.

Associate Sponsors: J.F. Jenkyn, D.J. Royle (LARS).

Design: 3 whole plots divided into 40 sub-plots arranged as 4 replicates of 10 treatments.

Whole plot dimensions: 123 x 63.0.

Treatments: All combinations of:-

Whole plots

1. VARIETY	Variety:
AVALON	Avalon
LONGBOW	Longbow
RENDEZVO	Rendezvous

Sub plots

2. FUNGICIDE	Fungicides applied according to growth stage or disease forecast:
O	None (duplicated on Rendezvous)
F1	Prochloraz on 26 April, 1989 (G.S.31) (duplicated on Avalon and Longbow)
F2	Prochloraz on 17 May (G.S.37), propiconazole on 14 June (G.S.59) (triplicated)
F3	Prochloraz on 26 April, propiconazole on 31 May
F4	Prochloraz on 26 April, propiconazole on 24 May (G.S.39)
F5	Prochloraz on 26 April, propiconazole on 14 June
F6	Prochloraz on 17 May

- NOTES:** (1) Fungicides were applied according to growth stages or in response to disease forecasts. Some growth stage and forecast spray timings coincided leading to duplication of some treatments.
(2) Prochloraz was applied at 0.40 kg in 200 l.
(3) Propiconazole was applied at 0.125 kg in 200 l.

Basal applications: Manures: 'Nitram' at 580 kg. Weedkillers: Glyphosate at 0.27 kg in 200 l. Isoproturon at 2.5 kg in 200 l. Metsulfuron-methyl at 0.0060 kg in 400 l. Molluscicide: Methiocarb at 0.22 kg.

Seed: Varieties, sown at 190 kg.

89/R/WW/6

Cultivations, etc.:- Heavy spring-tine cultivated: 31 Aug, 1988.
Glyphosate applied: 1 Oct. Heavy spring-tine cultivated: 14 Oct.
Seed sown: 17 Oct. Isoproturon applied: 14 Nov. Molluscicide
applied: 5 Dec. N applied: 15 Apr, 1989. Metsulfuron-methyl
applied: 3 May. Combine harvested: 2 Aug. Previous crops:
W. oilseed rape 1987, w. wheat 1988.

NOTE: Eyespot and septoria were assessed at regular intervals throughout
the season. Thousand grain weights and specific weights were
taken.

89/R/WW/6 AVALON

GRAIN TONNES/HECTARE

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

FUNGICIDE	
0	5.88
F1	6.81
F2	6.57
F3	6.34
F4	5.87
F5	6.80
F6	6.46
Mean	6.47

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

FUNGICIDE	
0.397	between 0,F3,F4,F5,F6
0.324	F2 v any of 0,F3,F4,F5,F6
0.343	F1 v any of 0,F3,F4,F5,F6
0.256	F1 v F2

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	0.562	8.7
GRAIN MEAN DM%	86.1		
PLOT AREA HARVESTED	0.00256		

89/R/WW/6 LONGBOW

GRAIN TONNES/HECTARE

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

FUNGCIDE

O	7.02
F1	7.82
F2	7.68
F3	7.89
F4	7.69
F5	7.64
F6	7.64
Mean	7.66

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

FUNGCIDE

0.369	between O, F3, F4, F5, F6
0.301	F2 v any of O, F3, F4, F5, F6
0.319	F1 v any of O, F3, F4, F5, F6
0.238	F1 v F2

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	0.521	6.8
GRAIN MEAN DM%	85.8		
PLOT AREA HARVESTED	0.00256		

89/R/WW/6 RENDEZVOUS

GRAIN TONNES/HECTARE

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

FUNGICIDE	
O	6.59
F1	6.48
F2	6.90
F3	6.79
F4	6.68
F5	6.57
F6	6.95
Mean	6.74

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

FUNGICIDE	
0.171	between F1,F3,F4,F5,F6
0.139	F2 v any of F1,F3,F4,F5,F6
0.148	O v any of F1,F3,F4,F5,F6
0.110	O v F2

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	0.242	3.6
GRAIN MEAN DM%	86.0		
PLOT AREA HARVESTED	0.00256		