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Yields of the Field Experiments 1975



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Rothamsted Research

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75/R/B/2

WINTER BARLEY

FOLIAR DISEASES

Object: To study the effects of different amounts of infected straw, seed infection and seed dressing on incidence of Rhynchosporium and yield of winter barley - Pastures.

Sponsors: J.F. Jenkyn, J. King (M.A.F.F.).

Design: 2 randomised blocks of 12 plots.

Whole plot dimensions: 4.27 x 9.14.

Treatments: All combinations of:-

1. Rate of applying straw, infected with Rhynchosporium, to seedbed:

STRAW RT

None Little (66 kg/ha) Much (584 kg/ha)

NONE LITTLE MUCH

2. Seed infection with Rhynchosporium:

SEED INF

None Infected

NONE INFECTED

3. Seed dressing:

SEED DRS

Fungicide (Mercury as 'Agrosan GN' at

NONE

2.2 gm/kg of seed)

FUNGCIDE

Basal applications: Manures: (0:20:20) at 250 kg combine drilled. 'Nitro-Chalk' at 240 kg. Weedkillers: Mecoprop ('Compitox Extra' at 2.8 1) plus bromoxynil with ioxynil ('Oxytril CM' at 1.4 1) in 220 1. Fungicide: Ethirimol at 0.35 kg in 340 1. Irrigation: 5 mm applied on each of 7 occasions.

Seed: Maris Otter, sown at 160 kg.

Cultivations, etc.:- Chisel ploughed twice: 9 Dec, 1974. Spring-time cultivated, straw applied and all plots rotary cultivated: 10 Dec. Seed sown and cultivated in: 18 Dec. N applied: 5 Apr, 1975. Weedkiller applied: 9 May. Ethirimol applied: 5 June. Water applied: 25, 26 and 28 June, 5, 12, 19 and 26 July. Combine harvested: 30 July. Previous crops: Beans 1973, potatoes 1974.

NOTE: Rhynchosporium was assessed on 8 May and 8 July.

75/R/B/2

GRAIN TONNES /HECTARE

*** TABLES OF MEANS ***

SEED INF	NONE	INFECTED	MEAN	
STRAW RT		5 54	5 50	
NONE	6.04			
LI TTLE	5.20			
MUCH	5 •50	5.54	5.52	
MEAN	5.58	5.60	5.59	
SEED DRS	NONE	FUNGCIDE	MEAN	
S TRAW RT NONE	E 51	6 04	E 70	
	5.51			
LITTLE	5.58		5.47	
MUCH	5.30	5.75	5.52	
MEAN	5.46	5.72	5.5 9	
SEED DRS	NONE	FUNGCIDE	MEAN	
SEED INF				
NONE	5.38	5.78	5.58	
INFECTED	5.55	5.65	5.60	
MEAN	5.46	5.72	5.59	
SEED INF	NONE	I	FECTED	
SEED DRS STRAW RT	NONE	FUNGCIDE	NONE FU	NGCIDE
NONE	5.94	6.14	5.09	5.93
LITTLE	5.32		5.84	5.65
MUCH	4.88		5.72	5.36

**** STANDARD ERRORS OF DIFFERENCES OF MEANS ****

TABLE	STRAW RT	SEED INF	SEED DRS	STRAW RT SEED INF
SED	0.246	0.201	0.201	0.347
TABLE	STRAW RT SEED DRS	SEED INF SEED DRS	STRAW RT SEED INF SEED DRS	
SED	0.347	0.284	0.491	

**** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION ****

 STRATUM
 DF
 SE
 CV%

 BLCCK.WP
 11
 0.491
 8.8

GRAIN MEAN DM% 86.0

308

PLOT AREA HARVESTED 0.00260