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81/R/CS/250 Control of Cephalosporium - W. Wheat

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81/R/CS/250

CONTROL OF CEPHALOSPORIUM

Object: To study the effects of aldicarb, benomyl and HCH on the incidence of Cephalosporium Stripe (*Cephalosporium gramineum*) and on the yield of w. wheat - New Zealand.

Sponsors: R.J. Gutteridge, K.E. Fletcher.

The second year, w. wheat.

For previous year see 80/R/CS/250.

Design: 3 randomised blocks of 8 plots.

Whole plot dimensions: 2.67 x 6.10.

Treatments: All combinations of:-

1. CHEMICAL Chemicals and methods of application:

ALDICARB	Aldicarb at 10 kg worked in to seedbed
BENOMYL	Benomyl at 20 kg worked in to seedbed
HCH	HCH seed dressing at 0.4 g per kg seed

2. YEARS Harvest years of application:

1980+81	1980 and 1981 cumulative treatment
1981	1981, none in 1980

plus one extra treatment:

EXTRA

NONE	No chemical treatment in 1980 & 1981 (duplicated)
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NOTES: (1) 1981 soil treatments were applied on 2 Oct, 1980.
(2) 1981 benomyl was applied as a drench in 11,200 l of water.

Basal applications: Manures: (10:23:23) at 250 kg, combine drilled.
'Nitro-Chalk' at 390 kg. Weedkillers: Paraquat at 0.84 kg ion in 250 l.
Chlortoluron at 5.6 l in 250 l. Fungicide: Prochloraz at 0.4 l in 250 l.
Growth regulator: Chlormequat at 1.7 l in 250 l.

Seed: Flanders, sown at 200 kg.

Cultivations, etc.: - Paraquat applied: 19 Sept, 1980. Ploughed: 27 Sept.
Spring-tine cultivated twice: 1 Oct. Treatments applied, spike rotary
cultivated: 2 Oct. Seed sown: 3 Oct. Chlortoluron applied: 10 Oct. N
applied: 16 Apr, 1981. Growth regulator applied: 24 Apr. Fungicide
applied: 5 May. Combine harvested: 26 Aug.

NOTE: Incidence of Cephalosporium, take-all and Phialophora was measured in June. In April soil samples were examined for wireworm larvae, and plants for wireworm damage.

81/R/CS/250

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

CHEMICAL YEARS	ALDICARB	BENOMYL	HCH	MEAN
1980+81	7.53	7.47	8.00	7.67
1981	7.86	8.22	7.72	7.93
MEAN	7.69	7.84	7.86	7.80

NONE 7.75

GRAND MEAN 7.79

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

TABLE	YEARS	CHEMICAL	YEARS CHEMICAL
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SED	0.244	0.298	0.422

SED FOR NONE AGAINST ANY ITEM IN CHEMICAL.YEARS TABLE IS 0.365

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

STRATUM	DF	SE	CV%
BLOCK.WP	15	0.517	6.6

GRAIN MEAN DM% 83.4

PLOT AREA HARVESTED 0.00161