

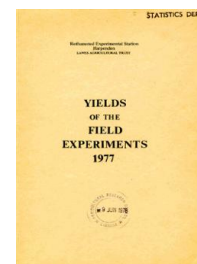
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77/R/CS/133

CONTROL OF PATHOGENS

Object: To study the effects of a range of chemicals on incidence of pathogens and yield of continuous maize - Long Hoos VI/VII 6.

Sponsors: A.J. Barnard, K.E. Fletcher, D.J. Hooper, D. Hornby, R.T. Plumb, T.D. Williams, J.C. Wilson.

The fourth year, forage maize.

For previous years see 74-76 R/CS/133.

Design: 3 randomised blocks of 9 plots split into 3.

Whole plot dimensions: 2.13 x 18.3.

Treatments: All combinations of:-

Whole plots

1. CHEMICAL	Chemicals applied annually except where stated:
NONE	None (4 plots per block)
ALDICARB	Aldicarb, 4.5 kg as granules to seedbed
BENOMYL	Benomyl, 11.2 kg as dust to seedbed
DAZOMET	Dazomet, 450 kg as granules in early spring (not applied 1975)
PHORATE	Phorate, 1.68 kg as granules to seedbed
BE/DA/PH	Benomyl + dazomet (not applied 1975) + phorate, at above rates and times

Sub plots

2. N Nitrogen fertiliser (kg N):

50
100
150

Basal applications: Manures: (0:14:28) at 970 kg. Weedkiller: Atrazine at 1.7 kg in 220 l.

Seed: Caldera 535, sown at 100,000 seeds per ha.

Cultivations, etc.: - Rotary cultivated twice: 26 Nov, 1976. PK applied: 13 Dec. Ploughed: 1-28 Feb, 1977. Dazomet applied and these plots only rotary cultivated: 11 Mar. Power harrowed: 25 Apr. Aldicarb, benomyl and phorate treatments applied, all plots rotary cultivated: 11 May. Seed sown: 18 May. N applied: 24 May. Weedkiller applied: 20 June. Harvested by hand: 8-10 Nov.

NOTES: (1) Germination counts were made in June.
(2) Frit fly (*Oscinella frit*) damage was assessed.
(3) Nitrogen percentages of forage samples were determined.

77/R/CS/133

FORAGE DRY MATTER TONNES/HECTARE

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

CHEMICAL N	NONE	ALDICARB	BENOMYL	DAZOMET	PHORATE	BE/DA/PH	MEAN
50	7.57	7.44	7.63	8.95	7.50	9.33	7.90
100	8.78	7.97	7.83	9.28	8.43	9.07	8.63
150	8.68	9.85	8.95	9.83	9.66	10.35	9.26
MEAN	8.34	8.42	8.14	9.35	8.53	9.59	8.60

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

TABLE	N	CHEMICAL	N	CHEMICAL
SED		0.717	0.941	MIN REP
	0.249	0.567	0.744	MAX-MIN
EXCEPT WHEN COMPARING MEANS WITH SAME LEVEL(S) OF:				
CHEMICAL			0.746	MIN REP
			0.373	MAX REP

CHEMICAL
 MAX REP WITHIN NONE
 MAX-MIN NONE V REMAINDER
 MIN REP REMAINDER

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

STRATUM	DF	SE	CV%
BLOCK.WP	19	0.879	10.2
BLOCK.WP.SP	42	0.914	10.6

MEAN DM% 20.3

SUB PLOT AREA HARVESTED 0.00059