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86/R/BE/6 Varieties, Row Spacing and Plant Health - S. Beans

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86/R/BE/6

SPRING BEANS

VARIETIES, ROW SPACING AND PLANT HEALTH

Object: To compare four varieties of spring-sown field beans at two row spacings and two amounts of pest and disease control - Stackyard.

Sponsors: J. McEwen, D.P. Yeoman.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 6.0 x 10.0.

Treatments: All combinations of:-

1. VARIETY Varieties sown at 60 seeds per square metre:
ALFRED
MINDEN
TICOL
TROY
2. ROW SPAC Spacing between rows (cm):
12
48
3. PATHCONT Pest and pathogen control:
STANDARD Pirimicarb at 0.14 kg in 200 l on 16 July, 1986
ENHANCED Deltamethrin at 0.0079 kg in 500 l on 3 June and
23 June
Pirimicarb at 0.14 kg in 500 l on 9 July and in 200 l
on 16 July
Benomyl at 0.50 kg in 500 l on 18 July
Maneb at 0.80 kg and mancozeb at 0.80 kg in 500 l on
1 Aug
Triadimefon at 0.50 kg in 500 l on 19 Aug

Basal applications: Weedkillers: Trietazine at 1.2 kg and simazine at 0.17 kg in 200 l. Desiccant: Diquat at 0.60 kg ion with a wetting agent ('Agral' at 0.075 l) in 500 l.

Cultivations, etc.:- Ploughed: 20 Nov, 1985. Rotary harrowed, seed sown: 28 Apr, 1986. Weedkillers applied: 2 May. Desiccant with wetter applied: 17 Sept. Combine harvested: 23 Sept. Previous crops: W. wheat 1984 and 1985.

NOTES: (1) Establishment counts were made. Disease assessments were made in September. At maturity plant heights, lodging and components of yield were assessed.

(2) Because of seed shortage five plots were not sown, those with treatment combinations

VARIETY	TICOL	TICOL	ALFRED	TICOL	TICOL
ROW SPAC	12	48	48	48	12
PATHCONT	ENHANCED	STANDARD	ENHANCED	ENHANCED	STANDARD

Estimated values were used in the analysis.

86/R/BE/6

GRAIN TONNES/HECTARE

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

ROW SPAC	12	48	MEAN
VARIETY			
ALFRED	5.15	4.83	4.99
MINDEN	4.95	4.78	4.87
TICOL	4.54	4.04	4.29
TROY	4.80	4.01	4.40
MEAN	4.86	4.41	4.64

PATHCONT	STANDARD	ENHANCED	MEAN
VARIETY			
ALFRED	4.74	5.24	4.99
MINDEN	4.71	5.02	4.87
TICOL	4.21	4.37	4.29
TROY	4.13	4.68	4.40
MEAN	4.45	4.83	4.64

PATHCONT	STANDARD	ENHANCED	MEAN
ROW SPAC			
12	4.73	4.99	4.86
48	4.16	4.67	4.41
MEAN	4.45	4.83	4.64

ROW SPAC	12		48	
PATHCONT	STANDARD	ENHANCED	STANDARD	ENHANCED
VARIETY				
ALFRED	4.92	5.38	4.55	5.11
MINDEN	4.82	5.09	4.61	4.96
TICOL	4.54	4.55	3.88	4.20
TROY	4.66	4.95	3.60	4.41

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

TABLE	VARIETY	ROW SPAC	PATHCONT	VARIETY ROW SPAC
SED	0.100	0.070	0.070	0.141

TABLE	VARIETY PATHCONT	ROW SPAC PATHCONT	VARIETY ROW SPAC PATHCONT
SED	0.141	0.100	0.199

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

STRATUM	DF	SE	CV%
BLOCK.WP	25	0.244	5.3

GRAIN MEAN DM% 80.6

PLOT AREA HARVESTED	ROW SPAC 12	0.00300
	ROW SPAC 48	0.00288