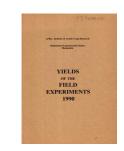
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Yields of the Field Experiments 1990



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90/R/LP/1

WINTER LUPINS

VARIETIES AND GROWTH REGULATORS

Object: To study the effects of two growth regulators on the growth, maturity and yield of two winter lupin varieties - Long Hoos VI/VII 5.

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

Design: 2 randomised blocks of 16 plots.

Whole plot dimensions: 1.8 x 9.0.

Treatments: All combinations of:-

Whole plots

VARIETY Varieties:

C 8 C 8 LUCKY Lucky

2. GROW REG Growth regulators:

2 CHLORO 2-chloroethylphosphonic acid TRIAPENT Triapenthanol

3. G R RATE Rates of growth regulator (g):

	2 CHLC	ORO TRIAPEN	T
1	100	0 150	
3	300	0 450	
6	600	900	

plus two extra treatments:

EXTRA

C 8 0	C8 without growth regulator
LUCKY 0	Lucky without growth regulator

NOTES: (1) Each block contained two additional EXTRA plots for ancillary studies.

- (2) Plots were netted from October to April.
- (3) Growth regulators were applied in 300 l on 17 May, 1990.

Basal applications: Manures: (0:18:36) at 1.1 t. Weedkillers:
Terbuthylazine at 0.42 kg and terbutryn at 0.98 kg in 200 l.
Fluazifop-P-butyl at 0.19 kg applied with a wetting agent, 'Vassgrow', in 220 l. Insecticides: Deltamethrin at 7.5 g in 200 l. Dimethoate at 0.34 kg in 400 l. Irrigation: 25 mm. Previous crops: Lupins 1988, s. barley 1989.

Seed: Sown at 60 seeds per square metre.

90/R/LP/1

Cultivations, etc.:- PK applied: 22 Aug, 1989. Ploughed: 29 Aug.
Rotary cultivated: 13 Sept. Spiked rotary cultivated and harrowed:
14 Sept. Seed sown, chain harrowed and rolled: 15 Sept.
Terbuthylazine and terbutryn applied: 19 Sept. Irrigation applied:
25 Sept. Fluazifop-P-butyl with wetting agent applied: 8 Dec. Hand weeded: 27 Mar, 1990 - 6 Apr. Deltamethrin applied: 25 Apr.
Dimethoate applied: 17 May. Combine harvested: 11 Sept.

NOTE: Plants were counted at establishment and in spring. Plant heights were measured and flowering dates were recorded. Components of yield were measured at maturity.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

GROW REG	2 (CHLORO	TRIAPENT	Mean	
VARIETY					
C 8		4.03	4.59	4.31	
LUCKY		0.45	1.38	0.91	
Mean		2.24	2.98	2.61	
G R RATE		1	3	6	Mean
VARIETY					
C 8		4.30	4.33	4.29	4.31
LUCKY		0.26	0.98	1.50	0.91
Mean		2.28	2.66	2.90	2.61
G R RATE		1	3	6	Mean
GROW REG					
2 CHLORO		2.15	2.20	2.37	2.24
TRIAPENT		2.41	3.11	3.43	2.98
Mean		2.28	2.66	2.90	2.61
		G R RAT	E	1 3	6
VARIETY		GROW RE	G		
C 8		2 CHLOR	0 4.2	9 3.96	3.83
		TRIAPEN	T 4.3	0 4.71	4.76
LUCKY		2 CHLOR	0.0	0 0.44	0.91
		TRIAPEN	т 0.5	1 1.52	2.09
EXTRA	C 8	0 LUC	KY 0	Mean	

0.87

GRAND MEAN 2.59

GRAIN MEAN DM% 66.9

PLOT AREA HARVESTED 0.00130

4.20