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Yields of the Field Experiments 1991



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91/R/LP/2

WINTER LUPINS

PRUNING STUDY

Object: To study the effects of different amounts of manual pruning on the maturity date and yield of indeterminate varieties for comparison with a genetically determinate variety - Long Hoos V 4.

Sponsors: J.M. Day, G.F.J. Milford, J.E. Leach, H.J. Stevenson.

Design: 4 randomised blocks of 8 plots.

Whole plot dimensions: 1.8 x 9.0.

Treatments:

VAR PRUN	Varieties and pruning:
SDL 1 U	SDL 1, unpruned
LUGEL U	Lugel, unpruned
LG SI E	Lugel, secondary branches and inflorescences removed early on 20 May, 1991
LG SI L	Lugel, secondary branches and inflorescences removed late on 3 June
LG T	Lugel, tertiary branches removed on 5 June
LUNOBL U	Lunoble, unpruned
LN SI E	Lunoble, secondary branches and inflorescences removed early on 20 May
LN T	Lunoble, tertiary branches removed on 5 June

Basal applications: Manures: (0:16:36) 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, 'Vassgro' at 0.22 l, in 220 l. Fungicides: Chlorothalonil at 1.5 kg with benomyl at 0.55 kg in 200 l. Prochloraz at 0.45 kg in 200 l. Insecticide:
Pirimicarb at 0.14 kg in 200 l.

Seed: Varieties, inoculated with Rhizobium, sown at 60 seeds per square metre.

Cultivations, etc.:- P and K applied: 3 Sept, 1990. Ploughed and
 rolled: 11 Sept. Cultivated with rotary grubber, rotary harrowed,
 seed sown: 25 Sept. Rolled, terbuthylazine and terbutryn applied:
 27 Sept. Fluazifop-P-butyl with wetting agent applied: 13 Dec.
 Insecticide applied: 2 July, 1991. Chlorothalonil and benomyl
 applied: 10 July. Prochloraz applied: 22 July. Hand harvested:
 10 Sept (LG SI E, LG SI L, LN SI E), 19 Sept (SDL 1 U, LG T, LN T) and
 14 Oct (LUGEL U, LUNOBL U).

91/R/LP/2

NOTES: (1) The crop was netted against birds and mammals from sowing to mid-June.

- (2) Leaf numbers, flower and pod development were monitored. Dry matter was measured in May and July.
- (3) Measurements of light interception by the crop were made in spring and summer.
- (4) Because of the shortage of seed, the yield of one plot of SDL 1 U was lost. Estimated values were used in the analysis.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

**** Tables of means ****

VAR PRUN	
SDL 1 U	4.59
LUGEL U	1.41
LG SI E	0.08
LG SI L	0.18
LG T	1.66
LUNOBL U	2.24
LN SI E	0.37
LN T	2.68
Mean	1.65

*** Standard errors of differences of means ***

VAR PRUN

0.301

***** Stratum standard errors and coefficients of variation *****

 Stratum
 d.f.
 s.e.
 cv%

 BLOCK.WP
 20
 0.426
 25.8

GRAIN MEAN DM% *

PLOT AREA HARVESTED 0.00065