This work is licensed under a Creative Commons Attribution 4.0 International License.

Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readible, or you suspect there are some problems, please let us know and we will correct that.

Yields of the Field Experiments 1987

Full Table of Content

87/R/LP/2 and 87/W/LP/2 Varieties, Sowing Dates and Plant Health - Lupins

Rothamsted Research

Rothamsted Research (1988) *87/R/LP/2 and 87/W/LP/2 Varieties, Sowing Dates and Plant Health - Lupins ;* Yields Of The Field Experiments 1987, pp 196 - 198 **- DOI: https://doi.org/10.23637/ERADOC-1-37**

This work is licensed under a Creative Commons Attribution 4.0 International License.

87/R/LP/2 and 87/W/LP/2

LUPINS

VARIETIES, SOWING DATES AND PLANT HEALTH

Object: To study the effects of sowing dates and pest and pathogen control on the growth and yield of two varieties of lupin (Lupinus albus) - Rothamsted (R) Sawyers I East and Woburn (W) Butt Close IV.

Sponsors: J. McEwen, D.P. Yeoman, A.W. Ferguson, J.F. Jenkyn.

Design: 3 randomised blocks of 16 plots.

Whole plot dimensions: 2.4 x 6.0 (R), 3.0 x 6.0 (W).

Treatments: All combinations of:-

1. SOW DATE — Dates of sowing:

R	W	R	W
4 FEB	4 FEB	4 February, 1987	4 February
24 FEB	23 FEB	24 February	23 February
18 MAR	16 MAR	18 March	16 March
14 APR	6 APR	14 April	6 April

2. VARIETY — Varieties:

KALINA
VLADIMIR

3. PATHCON — Pest and pathogen control:

NONE — None

FULL — (R) Insecticides: Cypermethrin at 0.025 kg in 220 l: 8 May, 1987, 12 June. Pirimicarb at 0.14 kg with a wetting agent ('Citowett' at 0.14 l) in 220 l: 10 July. Fungicide: Benomyl at 0.55 kg in 220 l: 30 July. Seed dressing: Bendiocarb, thiabendazole and thiram.

(W) Insecticides: Deltamethrin at 0.038 kg in 250 l: 8 May, 29 May. Pirimicarb at 0.077 kg with a wetting agent ('Enhance' at 0.015 l) in 200 l: 13 July. Fungicide: Benomyl at 0.50 kg applied with the pirimicarb.

NOTES: (1) At Rothamsted plots were netted from sowing to mid-June.
(2) At Woburn netting was available only from April to May and as a result yields were obtained only from SOW DATE 6 APR.

Basal applications:
Sawyers I East (R): Manures: Chalk at 5.0 t. Weedkillers: Monolinuron at 0.46 kg with paraquat at 0.33 kg ion in 220 l. Metamitron at 2.8 kg in 220 l. Desiccant: Diquat at 0.60 kg ion in 220 l.
Butt Close IV (W). Weedkillers: Terbutryne at 0.56 kg with terbuthylazine at 0.24 kg in 240 l.

Seed: Sown at 210 kg (R), 250 kg (W).

https://doi.org/10.23637/ERADOC-1-37

This work is licensed under a Creative Commons Attribution 4.0 International License.

87/R/LP/2 and 87/W/LP/2

Cultivations, etc.:-
Sawyers I East (R): Chalk applied: 24 Sept, 1986. Ploughed: 22 Oct. Monolinuron and paraquat applied after each sowing: 4 Feb, 1987, 24 Feb, 18 Mar, 14 Apr. Metamitron applied: 18 June. Diquat applied: 15 Sept, 25 Sept, 3 Nov. Combine harvested: 25 Sept, 22 Oct, 4, 18 Nov. Previous crops: W. wheat 1985 and 1986.
Butt Close IV (W): Ploughed: 10 Nov, 1986. Terbutryne and terbuthylazine applied after each sowing: 11 Feb, 1987, 23 Feb, 16 Mar, 9 Apr. Combine harvested: 18 Nov. Previous crops: Potatoes 1985, w. wheat 1986.

NOTE: Establishment counts were made at the four-leaf stage. Pests and diseases were observed and dates of flowering and maturity recorded.

87/R/LP/2 SAWYERS I E (R)

GRAIN TONNES/HECTARE

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

VARIETY	KALINA	VLADIMIR	Mean
SOW DATE			
4 FEB	0.24	0.29	0.27
24 FEB	0.34	0.27	0.31
18 MAR	2.66	2.20	2.43
14 APR	2.90	3.44	3.17
Mean	1.54	1.55	1.55

PATHCON	NONE	FULL	Mean
SOW DATE			
4 FEB	0.43	0.11	0.27
24 FEB	0.42	0.20	0.31
18 MAR	2.73	2.13	2.43
14 APR	3.19	3.16	3.17
Mean	1.69	1.40	1.55

PATHCON	NONE	FULL	Mean
VARIETY			
KALINA	1.73	1.35	1.54
VLADIMIR	1.66	1.45	1.55
Mean	1.69	1.40	1.55

VARIETY	KALINA		VLADIMIR	
SOW DATE PATHCON	NONE	FULL	NONE	FULL
4 FEB	0.40	0.08	0.45	0.14
24 FEB	0.50	0.18	0.33	0.22
18 MAR	3.02	2.30	2.45	1.96
14 APR	2.98	2.82	3.40	3.49

https://doi.org/10.23637/ERADOC-1-37

This work is licensed under a Creative Commons Attribution 4.0 International License.

87/R/LP/2 SAWYERS I E (R)

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

Table	SOW DATE	VARIETY	PATHCON	SOW DATE VARIETY
s.e.d.	0.108	0.077	0.077	0.153

Table	SOW DATE PATHCON	VARIETY PATHCON	SOW DATE VARIETY PATHCON
s.e.d.	0.153	0.108	0.216

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	30	0.265	17.2

GRAIN MEAN DM% 58.6

PLOT AREA HARVESTED 0.00086

87/W/LP/2 BUTT CLOSE IV (W)

GRAIN TONNES/HECTARE

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

PATHCON VARIETY	NONE	FULL	Mean
KALINA	0.71	0.73	0.72
VLADIMIR	0.47	0.64	0.56
Mean	0.59	0.69	0.64

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

Table	VARIETY	PATHCON	VARIETY PATHCON
s.e.d.	0.193	0.193	0.273

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	6	0.335	52.4

GRAIN MEAN DM% 58.7

PLOT AREA HARVESTED 0.00133

https://doi.org/10.23637/ERADOC-1-37