

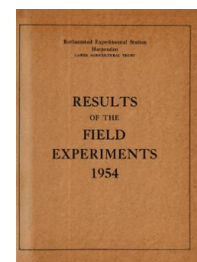
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1954

[Full Table of Content](#)



54/R/CE/1 Lucerne - Fertilizer Placement

Rothamsted Research

Rothamsted Research (1955) *54/R/CE/1 Lucerne - Fertilizer Placement* ; Yields Of The Field Experiments 1954, pp 89 - 91 - DOI: <https://doi.org/10.23637/ERADOC-1-184>

54/Ce/1.1

LUCERNE

Fertilizer placement and potash top dressings - Highfield, 5 1954 - the 3rd year.

System of replication: 8 randomised blocks of 8 plots each, a high order interaction being confounded with block differences. After first cut, plots split into two for potash top dressing.

Area of each plot: 0.0136 acre. Area of each sub plot: 0.0068 acre.

Treatments, applied 1952: All combinations of:-

P₂O₅: None; 1.0 cwt per acre applied as superphosphate.

K₂O: None; 1.0 cwt per acre applied as muriate of potash.

Method of placement: Broadcast on seedbed; Ploughed in 10".

Starter: None; 2 cwt granular superphosphate per acre placed beneath seed.

Applied 1954 to sub plots (after 1st cut):-

None; 1.0 cwt K₂O per acre as muriate of potash.

Basal dressing: None.

Cultivations, etc.: 1st cut: June 8. Applied potash top dressing: June 18. 2nd cut: Aug 15. 3rd cut: Nov 3.

Standard errors per plot. Dry Matter:

1st cut, whole plot:	2.89 cwt per acre or 12.6%	(42 d.f.)
2nd cut, whole plot:	2.10 cwt per acre or 10.1%	(42 d.f.)
2nd cut, sub plot:	2.18 cwt per acre or 10.5%	(48 d.f.)
3rd cut, whole plot:	1.19 cwt per acre or 20.2%	(42 d.f.)
3rd cut, sub plot:	0.83 cwt per acre or 14.1%	(48 d.f.)
Total of 3 cuts, whole plot:	4.35 cwt per acre or 8.8%	(42 d.f.)

Note: For previous year's results see 53/Cg/1 and 52/Cf/1.

54/Ce/1.2

Summary of Results

Dry Matter: cwt per acre

Treatments applied 1952

	No ferti- lizer	Superphosphate		Muriate of Potash		Superphosphate and Muriate of Potash		Mean
		Broad- cast	Ploughed in	Broad- cast	Ploughed in	Broad- cast	Ploughed in	
1st cut								
Mean (± 1.02)	21.8 ⁽¹⁾	22.2	21.8	23.4	23.5	24.3	24.3	22.9
Starter None	(± 1.02) 21.3	22.7	19.8	(± 1.44) 25.1	23.3	24.0	24.7	22.8
Super	22.3	21.7	23.9	21.7	23.7	24.6	23.9	23.0
Difference (± 2.04)	+1.0 ⁽²⁾	-1.0	+4.1	-3.4	+0.4	+0.6	-0.8	+0.2 ⁽¹⁾
			(1) ± 0.72					
			(2) ± 1.44					
2nd cut								
Mean (± 0.74)	20.2 ⁽¹⁾	18.7	19.0	22.8	21.5	22.8	21.2	20.8
Starter None	(± 0.74) 20.1	19.6	20.5	(± 1.05) 22.0	22.0	21.9	21.0	20.9
Super	20.3	17.8	17.5	23.6	20.9	23.7	21.3	20.7
Difference (± 1.49)	+0.2 ⁽²⁾	-1.8	-3.0	+1.6	-1.1	+1.8	+0.3	-0.2 ⁽¹⁾
K ₂ O ⁺ : cwt per acre	(± 0.65) [*]			(± 0.92) [*]				
None	19.0	16.6	18.9	20.1	20.2	21.5	19.7	19.4
1.0	21.5	20.9	19.1	25.5	22.8	24.1	22.6	22.2
Difference (± 1.09)	+2.5 ⁽³⁾	+4.3	+0.2	+5.4	+2.6	+2.6	+2.9	+2.8 ⁽⁴⁾
			(1) ± 0.53	(3) ± 0.77				
			(2) ± 1.05	(4) ± 0.38				

* for use in comparisons other than vertical.

+ applied June 1954.

54/Oe/1.3

Dry Matter: cwt per acre

Treatments applied 1952

	No ferti- lizer	Superphosphate		Muriate of Potash		Superphosphate and Muriate of Potash		Mean
		Broad- cast	Ploughed in	Broad- cast	Ploughed in	Broad- cast	Ploughed in	
3rd cut								
Mean (± 0.42)	5.2 ⁽¹⁾	4.7	5.4	7.0	6.6	6.3	6.8	5.9
Starter	(± 0.42)			(± 0.60)				
None	4.9	5.4	5.3	6.0	6.3	6.2	7.0	5.8
Super	5.4	4.0	5.5	8.1	6.8	6.4	6.5	6.0
Difference (± 0.84)	+0.5 ⁽²⁾	-1.4	+0.2	+2.1	+0.5	+0.2	-0.5	+0.2 ⁽¹⁾
K ₂ O ⁺ : cwt per acre	(± 0.33) [*]			(± 0.47) [*]				
None	4.2	3.2	4.6	6.1	5.2	5.3	5.9	4.8
1.0	6.2	6.1	6.2	8.0	8.0	7.3	7.7	7.0
Difference (± 0.42)	+2.0 ⁽³⁾	+2.9	+1.6	+1.9	+2.8	+2.0	+1.8	+2.2 ⁽⁴⁾
				(1) ± 0.30	(3) ± 0.29			
				(2) ± 0.60	(4) ± 0.15			
Total of 3 cuts								
Mean (± 1.54)	47.2 ⁽¹⁾	45.6	46.3	53.2	51.6	53.4	52.2	49.6
Starter	(± 1.54)			(± 2.18)				
None	46.3	47.7	45.6	53.1	51.7	52.2	52.8	49.5
Super	48.1	43.5	46.9	53.4	51.4	54.7	51.7	49.7
Difference (± 3.08)	+1.8 ⁽²⁾	-4.2	+1.3	+0.3	-0.3	+2.5	-1.1	+0.2 ⁽¹⁾
				(1) ± 1.09				
				(2) ± 2.18				

* for use in comparisons other than vertical

+ applied June 1954.