

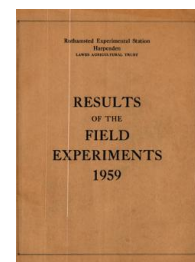
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Yields of the Field Experiments 1959

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59/W/BD/1 Green Manuring

Rothamsted Research

Rothamsted Research (1960) *59/W/BD/1 Green Manuring* ; Yields Of The Field Experiments 1959, pp 47 - 49 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

59/Ba/1.2

Summary of Results

Early potatoes, total tubers: tons per acre

	Straw: tons per acre		N: cwt per acre (including basal)		Dung to cabbages 1953: tons per acre		Mean
	None	1½	0.6	1.2	None	10	

Excluding plots fallow under old scheme

Undersown green manures for potatoes	(±0.185)		(±0.185)		(±0.185)		(±0.131)
None	4.12	4.05	4.01	4.16	4.02	4.15	4.08
	(±0.262)		(±0.262)		(±0.262)		(±0.185)
Trefoil	4.21	4.40	4.37	4.24	4.22	4.38	4.30
Ryegrass	4.63	4.86	4.88	4.61	4.28	5.22	4.74
Straw: tons per acre			(±0.185)		(±0.185)		(±0.131)
None			4.24	4.29	4.09	4.44	4.27
1½			4.39	4.29	4.18	4.50	4.34
N: cwt per acre (including basal)							
0.6					4.10	4.54	4.32
1.2					4.17	4.41	4.29
Mean (±0.131)					4.13	4.47	4.30

Plots fallow under old scheme

Straw: tons per acre			(±0.370)		(±0.370)		(±0.262)
None			3.52	3.56	3.42	3.66	3.54
1½			3.96	4.07	3.84	4.19	4.02
N: cwt per acre (including basal)							
0.6					3.58	3.90	3.74
1.2					3.68	3.95	3.82
Mean (±0.262)					3.63	3.92	3.78

Old scheme	Undersown green manures for potatoes				Mean
	None Fallow	None	Trefoil	Ryegrass	
	3.78	4.08	4.30	4.74	4.20
	(±0.185)	(±0.131)	(±0.185)		

59/Be/1.1

LEY AND ARABLE ROTATIONS

Woburn Stackyard 1959 - the 22nd year.

For history, treatments etc., see "Details of the Classical and Long Term Experiments" 1956.

Combine harvesting: In 1959 the combine harvester was introduced for barley and rye; the whole plot area was harvested for yield estimates.

Cultivations, etc.,

Treatment crops

Ley rotations

Ley 1st year. Ploughed twice: Sept 17 and Nov 21, 1958. PK fertilizers and 'Nitro-Shell' applied: Mar 31, 1959. Seed sown at 40 lb per acre: Apr 7. Sprayed with DNEP at 9 pints in 80 gallons per acre: June 4. 'Nitro-Shell' applied: 2nd dressing - Aug 31; 3rd dressing - Oct 7. Grazed 3 circuits: June 30 - Oct 30. Seeds mixture: 20 lb S24 Perennial Ryegrass, 11 lb S143 Cocksfoot, 6 lb Late Flowering Red Clover, 3 lb S100 White Clover per acre.

Ley 2nd year. Potash and nitrogen fertilizer applied: Mar 17, June 10 and Aug 31. Grazed 5 circuits: Apr 22 - Aug 29.

Ley 3rd year. Potash and nitrogen fertilizer applied: Mar 17, June 10 and Aug 31. Grazed 5 circuits: Apr 14 - Aug 21.

Lucerne 1st year. Ploughed twice: Sept 17 and Nov 21, 1958. PK fertilizer applied: Mar 31. Seed sown at 25 lb per acre: Apr 7.* Sprayed with dieldrin at 2 pints in 40 gallons per acre against birds: June 4. Cut twice: July 10, Sept 2. Variety: Du Puits.

Lucerne 2nd year. Muriate of potash applied: Apr 13. Cut 3 times: June 12, July 10, Sept 2.

Lucerne 3rd year. Plots 3, 4, 9 and 10 were fallowed because of stem eelworm and received no potash. Ploughed: Apr 30, June 13, Sept 2, 1959.

Arable rotations

Potatoes 1st course. Ploughed twice: Sept 17 and Nov 21, 1958. Compound fertilizer applied: Mar 31, 1959. Potatoes machine planted: Apr 1. Earthed up: June 22. Sprayed with zineb at 2 lb and demeton methyl (against aphids) at 12 fluid oz (50% active ingredients) in 40 gallons per acre: Aug 15. Haulm destroyed mechanically: Sept 22. Lifted: Sept 30. Variety: Majestic.

Rye 2nd course. Ploughed: Oct 16, 1958. Seed drilled at $2\frac{1}{2}$ bushels per acre: Oct 21. 'Nitro-Shell' applied: Apr 13, 1959. Seeds hay mixture undersown on 4 plots: Apr 7. Combine harvested: Aug 18. Variety: King II.

*Sprayed with dieldrin at 2 pints in 40 gallons per acre against weevil: Apr 30.