

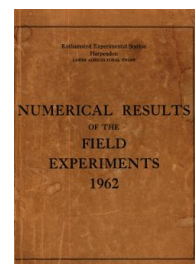
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1962

[Full Table of Content](#)



62/R/B/2 and 62/W/B/2 Reference Plots

Rothamsted Research

Rothamsted Research (1963) *62/R/B/2 and 62/W/B/2 Reference Plots ; Yields Of The Field Experiments 1962*, pp 54 - 58 - DOI: <https://doi.org/10.23637/ERADOC-1-164>

62/B/2.1

REFERENCE PLOTS

ROTHAMSTED (R) GREAT FIELD IV

WOBURN (W) STACKYARD SERIES C 1962

The effects of N,P,K and Dung (R and W), and of Mg,Ca,S and trace elements in the presence of N,P,K (R), on a sequence of five arable crops. Also the effects of N,P,K and Dung on permanent grass (R and W) and soft fruit (W).

Cultivations, etc.:

Great Field IV (R):-

- Winter wheat: Dug by hand: Sept 18, 1961. P,K,Mg,Ca and S applied and seed drilled: Oct 9. First N dressings applied: Mar 13, 1962. Second N dressings and trace element spray applied: May 1. Harvested: Aug 29. Variety: Cappelle.
- Kale: Dung applied, all plots dug by hand: Nov 30, 1961. P,K,Mg,Ca and S and first dressings of N applied, all plots rotary cultivated, seed sown: Mar 22, 1962. Second dressing of N applied: June 12. Trace element spray applied: July 2. Harvested: Nov 20. Variety: Thousand Head.
- Barley: Dug by hand: Dec 8, 1961. N,P,K,Mg,Ca and S applied and rotary cultivated in, seed drilled: Mar 20, 1962. Trace element spray applied: May 18. Harvested: Aug 24. Variety: Proctor.
- Grass - clover ley: Undersown in barley: Mar 9, 1961. N,P,K,Mg,Ca and S applied: Mar 12, 1962. Trace element spray applied: May 1. Cut four times: Oct 31, June 12, Aug 1 and Oct 10. Varieties: S22 Italian Ryegrass and Dorset Marl Red Clover.
- Potatoes: Dung applied: Nov 30, 1961. Dug by hand: Dec 7. P,K,Mg,Ca and S and first dressing of N applied and setts planted: Mar 22, 1962. Second dressing of N applied: June 12. Trace element spray applied: July 2. Harvested: Aug 25* and Sept 17.** Variety: King Edward.
- Permanent grass: Dung applied: Nov 30, 1961. P and K and first N dressing applied: Mar 12, 1962. Second N dressing applied: June 12. Cut twice: June 12 and Oct 4.

Stackyard Series C (W):-

- Oats: Hydrated lime applied at 25 cwt per acre: Oct 30, 1961. Rotary cultivated: Mar 2, 1962. Hydrated lime applied at 25 cwt per acre P and K and first dressing of N applied, seed drilled: Mar 5. Resown because of pheasant damage: Apr 26. Second N dressing applied: May 10. Harvested: Aug 27. Variety: Condor.
- Sugar beet: Dung applied, all plots dug by hand: Feb 6, 1962. Hydrated lime applied at 25 cwt per acre: Mar 2. P and K and first N dressing applied and rotary cultivated in, seed sown: Mar 26. Second N dressing applied: June 7. Harvested: Oct 18. Variety: Klein E.

* All plots without K, ** remainder.

+ Insert ": Mar 2."

62/B/2.2

Barley: Hydrated lime applied at 25 cwt per acre: Oct 30, 1961.
Rotary cultivated: Mar 2, 1962. Hydrated lime applied at 25 cwt per acre⁺ P and K and first N dressing applied and rotary cultivated in, seed drilled: Mar 5. Resown because of pheasant damage: Apr 14. Second N dressing applied: May 10. Harvested: Aug 16. Variety: Proctor.

Grass - clover ley: Undersown in barley: Mar 8, 1961. Hydrated lime applied at 25 cwt per acre: Mar 2, 1962. N, P and K applied: Mar 9. Cut four times: Oct 23, June 7, July 31 and Sept 27. Varieties: S22 Italian Ryegrass and Dorset Marl Red Clover.

Potatoes: Dung applied, all plots dug by hand: Feb 6, 1962. Hydrated lime applied at 25 cwt per acre: Mar 2. P and K and first N dressing applied and rotary cultivated in, setts planted: Mar 26. Second N dressing applied: June 7. Harvested: Sept 18. Variety: King Edward.

Permanent grass: Dung applied: Feb 6, 1962. Hydrated lime applied at 25 cwt per acre: Mar 2. P and K and first N dressing applied: Mar 9. Second N dressing applied: June 7. Cut twice: June 7 and Sept 27.

Soft fruit: Dung applied: Feb 6, 1962. N, P and K applied: Mar 9. Varieties: Blackcurrants - Wellington XXX; Gooseberry - Careless; Strawberry - Cambridge Vigour.

Note: For details of the previous years' results, and for rates of fertilisers etc., see "Results of the Field Experiments" 58/Bc/1, 59/Bc/1, 60/B/3 and 61/B/2.

Addendum to "Results of the Field Experiments" 61/B/2.1: sowing date for winter wheat - Oct 7, 1960.

⁺Insert ": Mar 2."

62/B/2.3

Summary of Results
Great Field IV (R): Original plots

Treatment	cwt per acre Winter wheat Grain Straw (at 85% D.M.)	tons per acre Kale: total weight	Barley Grain Straw (at 85% D.M.)	cwt per acre Ley: dry matter				tons per acre Potatoes: total tubers	cwt per acre Permanent grass: dry matter Total	
				1st cut	2nd cut	3rd cut	4th cut		1st cut	2nd cut
None	18.1	23.2	17.6	5.6	24.7	14.4	16.3	3.31	10.3	17.0
N ₁	22.0	30.1	20.5	2.8	36.3	11.3	18.1	2.76	19.2	17.7
P	32.8	43.9	20.5	3.4	32.0	12.1	16.6	2.36	10.0	14.5
N ₁ P	29.9	37.4	25.6	2.9	31.4	7.6	13.7	2.72	23.1	19.7
K	33.1	46.5	15.3	4.6	27.9	16.7	18.6	8.48	10.5	12.9
N ₁ K	36.7	52.6	21.6	7.2	24.9	13.4	15.7	9.40	31.7	26.6
PK	38.1	51.4	18.5	6.3	49.1	20.8	25.1	12.00	15.8	20.2
N ₁ PK	42.0	55.1	31.6	6.8	49.4	19.1	25.0	13.32	36.2	18.8
N ₂ PK	38.8	60.5	34.8	7.7	43.0	13.0	21.2	12.76	38.2	27.7
D	38.6	49.8	21.6	6.4	40.2	17.6	20.6	12.94	28.3	17.2
N ₁ PKD	46.7	68.8	31.5	5.8	47.6	19.5	26.6	14.06	45.7	26.3
N ₂ PKD	42.7	65.4	30.0	7.0	50.8	13.1	20.7	17.12	48.7	27.4
Mean dry matter % as harvested:	79.3	71.9	75.8	54.1	22.0	23.4	23.8	19.7	27.8	26.0
										26.9
										22.2

Great Field IV (R): Additional plots

Treatment	cwt per acre Winter wheat Grain Straw (at 85% D.M.)	tons per acre Kale: total weight	Barley Grain Straw (at 85% D.M.)	cwt per acre Ley: 2nd cut 1st cut	dry matter 3rd cut 4th cut	Total of 4 cuts	tons per acre Potatoes: total tubers
None	39.6	11.37	19.9	7.7	15.3	77.3	6.08
N ₂ PK	48.0	19.18	38.8	7.7	10.6	79.1	15.58
N ₂ PK Mg Ca	41.8	21.79	37.8	8.0	9.3	74.2	13.96
N ₂ PK Mg S	42.5	24.40	40.9	9.4	8.4	67.2	15.52
N ₂ PK Ca S	45.6	20.22	45.3	8.9	10.5	84.1	14.84
N ₂ PK Mg Ca S	37.3	22.66	39.2	8.3	8.7	73.4	14.98
N ₂ PK Mg Ca S TE	49.2	22.14	41.5	8.3	10.4	82.5	14.28
Mean dry matter % as harvested:	80.5		76.3	20.6	25.5	23.4	

62/B/2.4

61/B/2.5

Stackyard Series C (W)

Treatment	cwt per acre		tons per acre	Barley		cwt per acre				tons per acre	cwt per acre		Total of 2 cuts
	Oats	Grain Straw (at 85% D.M.)		Grain (at 85% D.M.)	Straw (at 85% D.M.)	1st cut	2nd cut	3rd cut	4th cut		Permanent dry matter	1st cut	
None	12.7	10.8	10.25	10.5	8.4	10.4	28.0	7.5	16.4	5.52	30.4	10.0	40.4
N ₁	21.2	17.4	12.26	16.9	15.8	9.9	29.7	10.2	18.6	7.16	37.0	19.2	56.2
P	18.7	15.6	11.59	13.2	10.8	11.0	25.3	8.2	15.8	5.04	26.6	8.1	34.7
N ₁ P	26.1	19.5	11.36	17.3	16.5	10.3	30.1	9.1	17.1	6.68	37.8	17.0	54.8
K	14.1	12.4	10.50	12.5	10.4	12.6	29.1	7.6	20.0	7.00	31.3	14.6	45.9
N ₁ K	21.4	17.3	13.24	18.2	16.0	10.2	34.3	9.7	20.3	10.00	41.9	20.7	62.6
PK	18.5	15.3	11.85	9.4	8.8	12.9	31.7	8.7	21.6	8.32	35.5	13.7	49.2
N ₁ PK	20.9	18.4	13.64	18.4	20.5	12.8	34.9	7.1	21.1	9.24	43.1	20.8	63.9
N ₂ PK	23.3	18.5	13.14	20.5	22.4	9.8	37.3	10.1	19.6	10.92	52.5	31.0	83.5
D	16.9	13.8	13.40*	14.2	12.6	12.2	32.6	8.2	20.6	12.72	39.3	11.3	50.6
N ₁ PKD	23.6	20.1	7.43*	22.2	24.7	14.9	30.2	10.3	22.4	14.91	46.9	28.7	75.6
N ₂ PKD	27.2	23.1	15.54	26.8	21.9	10.2	37.1	7.7	22.5	19.41	54.3	39.9	94.2
Mean dry matter % as harvested:	75.1	40.9		72.1	56.7	14.0	21.9	22.4	17.9		25.8	19.6	22.7

*Badly damaged by pheasants. All the other plots were affected to some extent.