

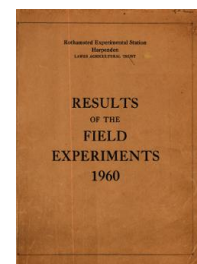
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1960

[Full Table of Content](#)



60/R/B/8 Concentrated Fertiliser Rotation

Rothamsted Research

Rothamsted Research (1961) *60/R/B/8 Concentrated Fertiliser Rotation ; Yields Of The Field Experiments 1960*, pp 71 - 72 - DOI: <https://doi.org/10.23637/ERADOC-1-180>

60/B/8.1

CONCENTRATED FERTILISER ROTATION

Concentrated compound fertiliser and forms of N - West Barnfield I
1960.

Rotation: Kale, ryegrass, barley.

Design (each crop): 2 randomised blocks of 14 plots each.

Area of each plot (acres): 0.0174. Area harvested: Kale - 0.0086,
Ryegrass - 0.0056, barley - 0.0116.

Treatments (per acre): No fertiliser. (O)
P₂O₅ and K₂O each at 0.3 cwt to barley and each at 0.1 cwt to kale
and ryegrass, as triple superphosphate and potassium
bicarbonate. (B)
Compound fertiliser, 20% N, 10% P₂O₅, 10% K₂O at 0.3(1),
0.6(2) cwt N to barley and 1.0(1), 2.0(2) to kale and
ryegrass. (F)
Sulphate of ammonia, granular superphosphate and muriate
of potash at rates equivalent to treatments F (1) and
(2) (F)
PK as treatment B plus (S)
Sulphate of ammonia (C)
Calcium nitrate (U)
Urea (U)
Ammonium nitrate (A)
each at rates 1 and 2 of N.

Basal dressing: None.

Cultivations, etc.: Ploughed: Oct 30 - Nov 2, 1959. Fertilisers
broadcast for barley, barley drilled at 2½ bushels per acre:
Mar 26, 1960. Fertilisers broadcast for ryegrass: Mar 31.
Ryegrass sown at 30 lb per acre; fertilisers applied for kale:
Apr 1. Kale drilled at 3 lb per acre: Apr 8. Barley sprayed
with CMPP at 6 pints in 40 gallons per acre: May 23. Grass cut:
July 20. Barley combine harvested: Aug 17. Grass cut second
time: Oct 3. Kale harvested: Nov 8 - 16. Varieties: Kale -
Thousand head; ryegrass - S22; barley - Proctor. Previous crop:
Oats.

Standard errors per plot.

Kale, fresh weight: 1.339 tons per acre or 6.0% (13 d.f.)
Ryegrass dry matter:
1st cut 2.59 cwt per acre or 9.2% (13 d.f.)
2nd cut 1.95 cwt per acre or 15.9% (13 d.f.)
Total of 2 cuts 3.31 cwt per acre or 8.2% (13 d.f.)
Barley, grain (at 85% dry matter): 1.38 cwt per acre or 3.8%
(13 d.f.)

60/B/8.2

Fertiliser	Summary of Results					
	Kale fresh weight tons per acre	Ryegrass dry matter cwt per acre			Barley (at 85% dry matter) cwt per acre	
		1st cut	2nd cut	Total of 2 cuts	Grain	Straw
	(±0.946)	(±1.83)	(±1.38)	(±2.34)	(±0.98)	
O	12.21	7.1	6.4	13.5	27.9	15.7
B	14.91	11.3	6.9	18.2	28.0	16.0
F ₁	22.18	30.8	9.5	40.3	34.8	21.8
F ₂	26.56	34.5	17.4	51.9	40.6	29.2
P ₁	22.44	27.7	9.5	37.2	35.3	20.5
P ₂	25.21	33.8	18.7	52.5	38.5	22.9
S ₁	21.58	25.2	9.5	34.7	37.1	25.2
S ₂	24.82	33.3	18.2	51.5	39.0	22.8
C ₁	23.71	30.7	8.3	39.0	35.1	22.8
C ₂	24.43	31.0	18.1	49.0	38.2	24.3
U ₁	21.45	27.2	8.1	35.3	34.1	21.2
U ₂	24.49	32.9	13.6	46.5	38.0	25.9
A ₁	22.04	32.5	10.3	42.8	35.1	23.4
A ₂	24.75	34.8	17.7	52.5	39.9	27.3
Mean	22.20	28.0	12.3	40.3	35.8	22.8
Mean dry matter % as harvested:		16.3	20.7	18.5	82.2	69.2

Treatments

- O = No fertiliser
- B = P₂O₅ and K₂O each at 0.3 cwt to barley and each at 0.1 cwt to kale and ryegrass, as triple superphosphate and potassium bicarbonate
- F = Compound fertiliser, 20% N, 10% P₂O₅, 10% K₂O at 0.3(1), 0.6(2) cwt N to barley and 1.0(1), 2.0(2) to kale and ryegrass.
- P = Sulphate of ammonia, granular superphosphate and muriate of potash at rates equivalent to treatments F (1) and (2).
- S = Sulphate of ammonia. Plus PK as treatment B
- C = Calcium nitrate. " " " "
- U = Urea. " " " "
- A = Ammonium nitrate. " " " "