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# Yields of the Field Experiments 1963

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## 63/R/CF/B/7 Concentrated Fertilisers Rotation

### Rothamsted Research

Rothamsted Research (1964) *63/R/CF/B/7 Concentrated Fertilisers Rotation* ; Yields Of The Field Experiments 1963, pp 107 - 108 - DOI: <https://doi.org/10.23637/ERADOC-1-183>

63/B/7.1

CONCENTRATED FERTILISERS ROTATION

(CF)

Concentrated compound fertiliser and forms of N - West Barnfield I  
1963, the fourth year - Barley.

Rotation: 1960 - 1962: kale, ryegrass, barley in all phases.  
1963: All blocks sown to barley.

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

Area of each plot: 0.0174 acres. Area harvested: 0.0105 acres.

Treatments. 1960 - 1962 (per acre): No fertiliser (C)  
P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O each at 0.3 cwt to barley and each at 1.0 cwt to  
kale and ryegrass, as triple superphosphate and potassium  
bicarbonate (B)  
Compound fertiliser, 20% N, 10% P<sub>2</sub>O<sub>5</sub>, 10% K<sub>2</sub>O at 0.3(1),  
0.6(2) cwt N to barley and 1.0(1), 2.0(2) cwt N to kale and  
ryegrass (F)  
Sulphate of ammonia, granular superphosphate and muriate of  
potash at rates equivalent to treatments F(1) and (2) (P)  
PK as treatment B plus  
Sulphate of ammonia (S)  
Calcium nitrate (C)  
Urea (U)  
Ammonium nitrate (A)  
each at rates 1 and 2 of N.

Basal dressing to barley 1963: 0.6 cwt N per acre as 'Nitro-Chalk'  
combine drilled.

Cultivations, etc.: Ploughed (after barley): Sept 13, 1962. Ploughed  
(after kale and ryegrass): Mar 20, 1963. Seed drilled at 2 bushels  
per acre: Apr 19. Undersown with grass and clover: May 8.  
Combine harvested: Sept 14. Variety: Proctor.

Note: For details of the previous years' results see 'Results of the  
Field Experiments' 60/B/8, 61/B/7 and 62/B/7.

Standard error per plot.

Grain (at 85% dry matter): 2.21 cwt per acre or 5.9% (39 d.f.)

63/B/7.2

Summary of Results

Grain (at 85% dry matter): cwt per acre

1960 1961 1962	Previous crop			Mean
	Kale Ryegrass Barley	Ryegrass Barley Kale	Barley Kale Ryegrass	
<u>Fertiliser</u>	(±1.57)*			(±0.90)
O	37.2	39.6	27.3	34.7
B	39.4	38.3	27.7	35.1
F1	38.5	39.9	30.7	36.4
F2	40.8	37.3	36.3	38.2
P1	41.5	40.2	29.8	37.2
P2	38.7	39.1	36.3	38.0
S1	44.1	37.8	29.7	37.2
S2	39.0	36.4	34.9	36.8
C1	43.2	38.0	30.7	37.3
C2	41.4	41.2	36.1	39.6
U1	43.8	41.0	30.2	38.3
U2	41.1	40.7	34.1	38.6
A1	41.3	38.9	28.7	36.3
A2	39.5	42.5	36.8	39.6
Mean	40.7	39.4	32.1	37.4

\*For use in vertical and interaction comparisons only.

Mean dry matter % as harvested: 82.1

For explanation of treatment symbols see page 63/B/7.1