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60/R/B/8 Concentrated Fertiliser Rotation

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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)

P_2O_5 and K_2O 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% P_2O_5 , 10% K_2O 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) (P)

PK as treatment B plus (S)
Sulphate of ammonia (C)
Calcium nitrate (U)
Urea (A)
Ammonium nitrate
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 $2\frac{1}{2}$ 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

Summary of Results						
Fertiliser	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 bicarbonateF = 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. " " " "