ROTHAMSTED RESEARCH

Yields of the Field Experiments 1965

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65/R/BQ/C/27 Previous Crops and N for Barley - Spring Wheat, Kale and Ryegrass

Rothamsted Research

Rothamsted Research (1966) *65/R/BQ/C/27 Previous Crops and N for Barley - Spring Wheat, Kale and Ryegrass ;* Yields Of The Field Experiments 1965, pp 217 - 219 **- DOI: https://doi.org/10.23637/ERADOC-1-159**

65/C/27.1

PREVIOUS CROPS X N FOR BARLEY

(BQ)

The effect of previous cropping and nitrogen on the yield of barley - Stackyard 1965, the 1st year.

Crops in 1965: Spring wheat, kale and ryegrass.

Design for 1966: 3 randomised blocks of 9 plots.

Area of each plot: 0.0321. Area harvested: Spring wheat - 0.0214, kale - 0.0161, ryegrass - 0.0069.

Treatments applied in 1965: All combinations of:-
1. Cropping: Spring wheat (W), kale (K), Italian ryegrass (G).
2. Nitrogen: None (N0), 1.0 (N2), 2.0 cwt (N4) N as 'Nitro-Chalk'.

NOTE: Barley 1966 will test in addition:
3. Nitrogen: None (N0), 0.5 (N1), 1.0 cwt (N2) as 'Nitro-Chalk'.

Basal applications: 1.0 cwt P_2O_5, 2.0 cwt K_2O as compound (0:14:28).
Weedkillers: To wheat: MCPA at 1.12 lb and dicamba at 0.08 lb in 40 gals, to ryegrass: 0.44 lb 2,4-D butoxyethylester in 40 gals.

Cultivations, etc.: Ploughed: Nov 24, 1964. Rotary cultivated twice: Mar 15 and 31, 1965. Basal PK applied, N applied: Apr 2.
Spring wheat: Seed drilled at 188 lb: Apr 3, 1965. Sprayed: May 22. Combine harvested: Sept 20. Variety: Opal.
Kale: Rotary cultivated: May 10, 1965. Seed drilled at 2 lb: May 12. Harvested: Nov 1. Variety: Thousand Head Canson.
Ryegrass: Seed drilled at 40 lb: Apr 3, 1965. Sprayed: June 2. Cut 3 times: July 7, Aug 9, Oct 7. Variety: Italian.

NOTE: Samples were taken from each crop at harvest for estimation of N percentage. Soil samples were taken after harvest for estimation of mineralisable N.

Standard errors per plot.

Spring wheat, grain:	2.70 or 7.4% (4 d.f.)
Kale, fresh weight:	2.231 or 11.8% (4 d.f.)
Ryegrass, dry matter, 1st cut:	4.83 or 16.9% (4 d.f.)
2nd cut:	2.52 or 14.3% (4 d.f.)
3rd cut:	3.41 or 35.7% (4 d.f.)
Total of 3 cuts:	7.46 or 13.4% (4 d.f.)

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65/C/27.2

SUMMARY OF RESULTS

N0	N2	N4	Mean
		SPRING WHEAT	
		GRAIN	
	(±1.56)		
28.4	40.4	41.4	36.7
		STRAW	
29.8	39.3	36.8	35.3

Mean D.M.%: Grain 75.9
Straw 78.1

KALE

FRESH WEIGHT

	(±1.288)		
13.23	19.87	23.66	18.92

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65/C/27.3

RYEGRASS

DRY MATTER

N0	N2	N4	Mean
	1ST CUT		
14.8	34.5 (±2.79)	36.4	28.6
	2ND CUT		
7.7	17.5 (±1.46)	27.7	17.6
	3RD CUT		
5.0	9.2 (±1.97)	14.4	9.5
	TOTAL OF 3 CUTS		
27.5	61.2 (±4.31)	78.5	55.8

Mean D.M. %: 1st cut 16.0
2nd cut 19.9
3rd cut 21.0
Total of 3 cuts 19.0

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