

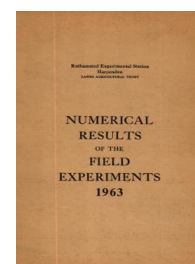
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## Yields of the Field Experiments 1963

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### 63/R/AN/C/4 Methods of Application of Fertiliser 1962-63 - Winter Wheat

#### Rothamsted Research

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63/c/4.1

METHODS OF APPLICATION OF FERTILISER 1962 - 63

(AN)

Methods of application of fertiliser - Great Knott I 1963, the second year - Winter wheat.

Design: 3 x 3 x 3 in 3 blocks of 9 plots each together with 3 additional plots per block.

Area of each plot: 0.0199 acres. Area harvested: 0.0129 acres.

Treatments:

3 x 3 x 3: All combinations of:

To wheat 1963. NPK: None (F0), 0.66 (F1), 1.32 (F2) cwt N per acre as spring top dressings of 'Nitro-Chalk', each with superphosphate and muriate of potash applied in autumn in the seedbed in the proportion 13 N, 13 P<sub>2</sub>O<sub>5</sub>, 20 K<sub>2</sub>O.

To potatoes 1962:

Levels of compound fertiliser (13% N, 13% P<sub>2</sub>O<sub>5</sub>, 20% K<sub>2</sub>O) to supply (cwt per acre):

N	<u>P<sub>2</sub>O<sub>5</sub></u>	<u>K<sub>2</sub>O</u>	
0.66	0.66	1.02	(1)
1.32	1.32	2.03	(2)
2.00	2.00	3.07	(3)

Methods of application: Broadcast (B), placed (P), broadcast and rotary cultivated in (BR).

Additional plots:

To wheat 1963. NPK: F0, F1, F2 as above to plots receiving no treatment in 1962.

Basal dressing: None.

Cultivations, etc.: Chisel ploughed: Oct 29, 1962. PK applied, seed drilled at 3 bushels per acre: Nov 14. 'Nitro-Chalk' applied - 1st half dressing: Apr 24, 1963, 2nd half dressing: May 9. Sprayed with mecoprop/2,4-D at 7 pints in 40 gallons per acre: May 17. Combine harvested: Sept 10. Variety: Cappelle. Previous crops: Barley 1961, potatoes 1962.

Note: For details of the previous year's results see 'The Numerical Results of the Field Experiments' 62/c/9.

Standard error per plot. Winter wheat:

Grain (at 85% dry matter): 3.97 cwt per acre or 10.6% (18 d.f.)

63/C/4.2

Summary of Results

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

NPK 1963	Method of application of compound fertiliser to potatoes 1962			Levels of compound fertiliser to potatoes 1962			Mean
	B	P	BR	1	2	3	
	(±2.29)			(±2.29)			(±1.32)
FO	33.1	34.1	32.5	28.4	32.2	39.1	33.2
F1	38.4	38.7	40.9	38.9	39.4	39.8	39.3
F2	45.7	45.3	40.1	40.5	45.2	45.5	43.7
		B		37.4	40.0	39.8	39.1
		P		34.6	37.7	45.7	39.4
		BR		35.7	39.0	38.8	37.8
	Mean (±1.32)			35.9	38.9	41.5	38.8 (±0.76)

Plots untreated in 1962

FO	NPK 1963		Mean
	F1	F2	
26.1	34.3 (±2.29)	39.9	33.4 (±1.32)

General mean: 37.5

Mean dry matter % as harvested: 78.5

For explanation of treatment symbols see 63/C/4.1

63/C/4.3

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

NPK 1963	Method of application of compound fertiliser to potatoes 1962			Levels of compound fertiliser to potatoes 1962			Mean
	B	P	BR	1	2	3	
FO	15.2	17.3	15.6	14.1	15.4	18.6	16.0
F1	28.2	23.2	23.1	24.8	28.4	21.2	24.8
F2	24.7	29.2	26.0	27.1	28.4	24.4	26.6
		B		25.2	23.5	19.3	22.7
		P		22.0	25.8	21.9	23.2
		BR		18.7	23.0	23.0	21.6
		Mean		22.0	24.1	21.4	22.5

Plots untreated in 1962

FO	NPK 1963		Mean
	F1	F2	
13.2	22.6	26.3	20.7

General mean: 22.0

Mean dry matter % as harvested: 63.8

For explanation of treatment symbols see 63/C/4.1