

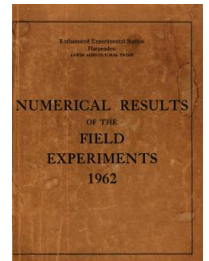
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Yields of the Field Experiments 1962

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62/R/B/9 N Levels and Residues Two Course Rotation

Rothamsted Research

Rothamsted Research (1963) *62/R/B/9 N Levels and Residues Two Course Rotation* ; Yields Of The Field Experiments 1962, pp 91 - 92 - DOI: <https://doi.org/10.23637/ERADOC-1-164>

62/B/9.1

N LEVELS AND RESIDUES ROTATION

Direct and residual effects of sulphate of ammonia - Long Hoos III 1962, the 3rd year.

Rotation: Wheat, potatoes.

Design (eachcrop): 3 randomised blocks of 9 plots each.

Area of each plot: 0.0212 acres. Area harvested: 0.0141 acres.

Treatments. All combinations of:-

Nitrogen (applied as sulphate of ammonia) at 3 levels in 1961.

Nitrogen at 3 levels in 1960, and repeated on the same plots in 1962.

To wheat: None; 0.5; 1.0 cwt N per acre.

To potatoes: None; 0.75; 1.50 cwt N per acre.

Basal dressing (per acre):

To wheat: $2\frac{1}{2}$ cwt compound fertiliser, 14% P_2O_5 , 28% K_2O combine drilled.

To potatoes: 5 cwt compound fertiliser, 14% P_2O_5 , 28% K_2O broadcast on the flat.

Cultivations, etc.:

Wheat: Ploughed: Oct 6, 1961. Rotary cultivated: Oct 9. Seed drilled at $2\frac{1}{2}$ bushels per acre: Oct 12. Sulphate of ammonia applied: Apr 9, 1962. Sprayed with MCPA/TBA at 4 pints in 40 gallons per acre: Apr 24. Combine harvested: Sept 3. Variety: Cappelle.

Potatoes: Ploughed: Oct 12, 1961. Rotary cultivated: Mar 26, 1962. Basal fertiliser and sulphate of ammonia applied: Apr 11. Ridged, potatoes planted: Apr 13. Earthed up: July 7. Sprayed with maneb at $1\frac{1}{2}$ lb in 18 gallons per acre: July 19. Sprayed with copper oxychloride fungicide at 2.3 lb Cu in 20 gallons per acre: Aug 10 and again Aug 24. Sprayed with undiluted BOV at 15 gallons per acre: Sept 25. Lifted: Oct 11. Variety: Ulster Supreme.

Standard errors per plot.

Wheat. Grain (at 85% dry matter): 2.59 cwt per acre or 6.7% (16 d.f.)

Potatoes. Total tubers: 0.790 tons per acre or 9.4% (16 d.f.)

Note: For details of the previous years results see "Results of the Field Experiments" 60/B/10 and 61/B/9.

62/B/9.2

Summary of ResultsWheat, Grain (at 85% dry matter): cwt per acre

N: cwt per acre in 1960 & 1962

	None	0.5	1.0	Mean
N: cwt per acre to potatoes in 1961		(± 1.49)		(± 0.86)
None	28.2	34.2	42.2	34.8
0.75	30.6	40.2	44.4	38.4
1.50	37.1	43.9	48.4	43.1
Mean (± 0.86)	32.0	39.4	45.0	38.7

Mean dry matter % as harvested: 84.0

Potatoes

N: cwt per acre in 1960 & 1962

	None	0.75	1.50	Mean
N: cwt per acre to wheat in 1961	<u>Total tubers: tons per acre</u>			
	(± 0.455)			(± 0.263)
None	4.95	8.95	11.64	8.52
0.5	4.60	8.90	10.76	8.08
1.0	4.94	9.42	11.53	8.63
Mean (± 0.263)	4.83	9.09	11.31	8.40

N: cwt per acre to wheat in 1961

Percentage ware ($1\frac{1}{2}$ " riddle)

None	94.6	96.6	96.7	95.9
0.5	94.6	96.9	97.6	96.4
1.0	94.9	96.1	97.2	96.1
Mean	94.7	96.5	97.2	96.1