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Yields of the Field Experiments 1954

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54/R/CD/1 Potatoes - Dung N P K

Rothamsted Research

Rothamsted Research (1955) *54/R/CD/1 Potatoes - Dung N P K* ; Yields Of The Field Experiments 1954, pp 83 - 83 - DOI: <https://doi.org/10.23637/ERADOC-1-184>

54/Ca/1

POTATOES

Dung, N, P and K - Sawyers I 1954.

System of replication: 4 randomized blocks of 8 plots each, the interaction DNEK being confounded with block differences.

Area of each plot: 0.0210 acre. Area harvested: 0.0140 acre.

Treatments: All combinations of:-

- Dung: None; 10 tons per acre.
- N: None; 0.6 cwt per acre applied as sulphate of ammonia.
- P₂O₅: None; 0.6 cwt per acre applied as superphosphate.
- K₂O: None; 1.0 cwt per acre applied as muriate of potash.

Basal dressing: None.

Cultivations, etc.: Dung applied: Nov 30, 1953. Ploughed: Dec 2. Ridged and fertilizers applied in ridges: Apr 23, 1954. Potatoes hand planted: Apr 24. Earthed up: July 6. Sprayed with copper fungicide, low volume, 5 lb in 10 gallons per acre: July 29 and again Aug 23. Sprayed with 15% sulphuric acid: Sept 25. Lifted: Oct 16 and again Oct 23. Variety: Majestic S.S. Previous crop: Dredge corn.

Standard error per plot:

Total tubers: 0.997 tons per acre or 11.4% (18 d.f.)

Summary of Results

Responses to Treatments

Response to	Mean	Dung: tons per acre		cwt per acre					
		0	10	N		P ₂ O ₅		K ₂ O	
		0.0	0.6	0.0	0.6	0.0	1.0		

Total tubers: Mean yield 8.75 tons per acre
(±0.352) (±0.498)

Dung	+2.04	-	-	+1.56	+2.52	+2.28	+1.80	+4.03	+0.05
N	+2.08	+1.60	+2.56	-	-	+1.11	+3.05	+1.17	+2.99
P ₂ O ₅	+0.67	+0.91	+0.43	-0.30	+1.64	-	-	+0.83	+0.51
K ₂ O	+1.56	+3.55	-0.43	+0.65	+2.47	+1.72	+1.40	-	-

Percentage ware (1½" riddle): Mean 82.9

Dung	+2.1	-	-	+0.7	+3.5	+1.5	+2.7	+6.1	-1.9
N	+2.6	+1.2	+4.0	-	-	+0.9	+4.3	+0.3	+4.9
P ₂ O ₅	-2.4	-3.0	-1.8	-4.1	-0.7	-	-	-0.2	-4.6
K ₂ O	+3.1	+7.1	-0.9	+0.8	+5.4	+5.3	+0.9	-	-