

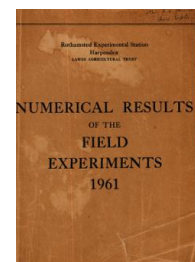
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Yields of the Field Experiments 1961

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61/R/DE/3 Potatoes - Azotobacter Inoculation

Rothamsted Research

Rothamsted Research (1962) *61/R/DE/3 Potatoes - Azotobacter Inoculation* ; Yields Of The Field Experiments 1961, pp 130 - 130 - DOI: <https://doi.org/10.23637/ERADOC-1-182>

61/De/3

POTATOES

The effect of azotobacter inoculation - Whittlocks 1961.

Design: 4 × 4 Latin square.

Area of each plot: 0.0057 acres. Area harvested: 0.0014 acres.

Treatments. All combinations of:-

Nitrogen: None; 1.2 cwt N per acre applied as 'Nitro-Chalk' in furrows before planting.

Azotobacter inoculation: None - seed potatoes dressed with mineral nutrient solution as used for azotobacter culture medium; seed potatoes inoculated with azotobacter.

Basal manuring (per acre): 7 cwt compound fertiliser, 12% P₂O₅, 24% K₂O, broadcast on the flat before ridging.

Cultivations, etc.: Ground chalk applied at 24 cwt per acre: Sept 6, 1960. Ploughed: Apr 27, 1961. Rotary cultivated: May 8. Basal PK compound applied, ridged: May 9. 'Nitro-Chalk' applied: May 10. Potatoes planted: May 12. Earthed up: July 9. Sprayed with zineb at 2 lb in 40 gallons per acre: Aug 3. Sprayed with undiluted BOV at 15 gallons per acre: Sept 22. Harvested: Oct 4. Variety: King Edward. Previous crop: Barley.

Standard error per plot.

Total tubers: 1.325 tons per acre or 10.5% (6 d.f.)

Note. Counts were made of numbers of azotobacter on tubers and roots.

Summary of Results

N: cwt per acre

	None		1.2		
	Unin- oculated	Inoculated	Unin- oculated	Inoculated	Mean
<u>Total tubers: tons per acre</u>					
Mean (±0.663)	10.00	9.38	15.94	15.24	12.64
Increase (±0.937)		-0.62	+5.94	+5.24	