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Yields of the Field Experiments 1957

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57/R/CF/4 and 57/W/CF/4 Potatoes - Control of Skin Spot (Fungicides)

Rothamsted Research

Rothamsted Research (1958) *57/R/CF/4 and 57/W/CF/4 Potatoes - Control of Skin Spot (Fungicides)* ;
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57/Cf/4.1

POTATOES

Control of skin spot (*Oospora pustulans*) by fungicides - Rothamsted (R)
Highfield IV and Woburn (W) Great Hill 1957.

Design: 3 randomized blocks of 12 plots each.

Area of each plot: 0.0141 acres. Area harvested: 0.0071 acres.

Treatments:

None (3 plots per block).

Dung (3 plots per block): 15 tons per acre applied in the furrows.

PCNB, 20% Pentachloronitrobenzene dust applied: To seed at $1\frac{1}{2}$ oz.
per cwt (S); to furrows before planting at 300 lb per acre (F);
(S) and (F).

Nomersan, 10% Thiram dust applied: To seed at 3 oz. per cwt (S);
to furrows before planting at 150 lb per acre (F); (S) and (F).

Basal dressing: 15 cwt compound fertilizer (9% N, 9% P₂O₅, 15% K₂O) per
acre.

Cultivations, etc.:

Highfield IV (R). Ploughed twice: Nov 22, 1956 and Feb 22 - Mar 1,
1957. Ridged, basal fertilizer, dung and fungicides applied,
potatoes hand planted: May 1. Earthed up: July 8. Sprayed
with copper fungicide, 5 lb in 40 gallons per acre: July 31 and
Aug 21. Sprayed with sulphuric acid, 20% BOV, 100 gallons per
acre: Sept 28. Lifted: Oct 4. Variety: Majestic. Previous
crop: Wheat.

Great Hill (W). Ploughed: Feb 6, 1957. Ridged: Apr 24. Dung,
basal fertilizers and fungicides applied, potatoes hand planted:
Apr 25. Earthed up: July 6. Sprayed with copper fungicide at
5 lb in 40 gallons per acre: Aug 3, Aug 23, Sept 3. Sprayed with
sodium arsenite at 1 gallon in 40 gallons per acre: Sept 20.
Lifted: Oct 2. Variety: Majestic. Previous crop: Barley.

Note: Emergence counts and records of incidence of root browning and
skin spot (*Oospora pustulans*), black scurf and stem canker (*Corticium
solani*) and common scab (*Actinomyces scabies*) were made.

In 1956 the Pentachloronitrobenzene dust, PCNB, was recorded in
error as Parachloronitrobenzene

Standard errors per plot. Total tubers.

Highfield IV (R): 1.21 tons per acre or 8.6% (26 d.f.)

Great Hill (W): 1.52 tons per acre or 11.5% (26 d.f.)

57/Cf/4.2

Summary of Results

	0	D	Treatment					NSF	Mean
			PS	PF	FSF	NS	NF		

Total tubers: tons per acre

Highfield IV, Rothamsted

	(±0.40)		(±0.70)						
Mean	14.08	14.54	13.81	13.79	14.48	12.65	14.67	13.64	14.08
Increase (±0.81)	-	+0.46 ⁽¹⁾	-0.27	-0.29	+0.40	-1.43	+0.59	-0.44	
(1) ±0.57									

Great Hill, Woburn

	(±0.51)		(±0.88)						
Mean	12.96	13.08	14.25	14.12	13.17	12.86	12.42	13.85	13.23
Increase (±1.02)	-	+0.12 ⁽¹⁾	+1.29	+1.16	+0.21	-0.10	-0.54	+0.89	
(1) ±0.72									

Percentage Ware

Highfield IV, Rothamsted⁽¹⁾

Mean	70.4	76.3	72.8	74.3	67.8	70.2	66.0	67.7	71.6
Increase	-	+5.9	+2.4	+3.9	-2.6	-0.2	-4.4	-2.7	

Great Hill, Woburn⁽²⁾

Mean	87.0	86.4	87.1	91.7	87.4	83.0	86.4	85.7	86.8
Increase	-	-0.6	+0.1	+4.7	+0.4	-4.0	-0.6	-1.3	

Fungicide

D Dung at 15 tons per acre.

P FCNB (Pentachloronitrobenzene) 20% dust.

N Nomersan, 10% Thiram dust.

Method of application

S Seed treated.

F Applied to furrows before planting.

Riddle: (1) 1½" (2) 1⅝"