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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); Yields Of The Field Experiments 1957, pp 102 - 103 - **DOI:** 

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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 blacks 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 11/2 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% P205, 15% K20) 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 Lifted: Oct 4. Variety: Majestic. Previous acre: Sept 28. 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 Pentachloronitro benzene dust, PCNB, was recorded in error as Parachloronitro benzene

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									
Treatment								,	
	0	D	PS	PF	PSF	NS	NF	NSF	Mean
		Tota	al tuber	s: tons	per ac	re			
Highfield IV, Rothamsted									
	(±0	0.40)	(±0.70)						
Mean	14.08	14.54 +0.46(1)	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									
	1	0.51)			(±0.				
Mean	12.96	13.08 +0.12 <sup>(1)</sup>	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									
		77.		l IV, Ro		a(1)			
Mean	70.4			74.3			66.0	67.7	71 6
Increase									
Increase - +5.9 +2.4 +3.9 -2.6 -0.2  Great Hill, Woburn(2)									
Mean	187 0	86.4					86 1.	85 7	86.8
		-0.6							
		-			1				
Fungicide									
D Dung at 15 tons per acre. P FCNB (Pentachloronitrobenzene) 20% dust. N Nomersan, 10% Thiram dust.									
Method of	applic	eation							
Method of application  S Seed treated.									
F Applied to furrows before planting.									
Riddle:	(1) 11/2	$(2) 1\frac{5}{8}$ "							

194