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68/DE/6 Coiled Sprout and Verticillium Nubilum - Potatoes

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68/De/6.1

POTATOES

(RP 6/1)

Coiled sprout and *Verticillium nubilum* - Great Harpenden II 1968.

Design (each variety): 4 blocks of 2 split into 6.

Area of each sub plot: 0.0029. Area harvested: 0.0029.

Treatments: 4 blocks of Arran Pilot, 4 of Pentland Dell. All combinations of:-

- Whole plots: 1. Weed control: By cultivation (see below under 'Cultivations etc.') (WO), by pre-emergence weedkiller (Paraquat at 0.5 lb ion plus linuron at 0.75 lb in 36 gals) (WW).
- Sub plots: 2. Seed treatment (seed of the same stock, differentially chitted): Chitted, coil prone (CP), chitted non-coil prone (CO), unchitted, non-coil prone (OO).
3. Fungus inoculation: Seed tubers dipped in water (O), dipped in suspension of *Verticillium nubilum* (F).

Basal applications: 3 tons ground chalk, 7 tons FYM, 8 cwt (13:13:20).
Fungicide: Mancozeb at 1.2 lb in 40 gals on 3 occasions.

Cultivations, etc.: FYM applied: 8 Dec, 1967. Ground chalk applied, plots ploughed: 20 Dec. Basal NPK compound applied: 20 - 27 Mar, 1968. Rotary cultivated, potatoes planted, rotary ridged: 22 Apr. WO plots chain-harrowed: 23 Apr. Weedkiller applied to WW plots: 6 May. WO plots grubbed: 20 May, mechanically weeded: 24 May, rotary ridged: 28 May, grubbed: 7 June, rotary ridged: 10 June. WW plots grubbed: 17 June. WW plots ridged with ridging bodies (Pentland Dell plots only): 18 June. Sprayed with mancozeb: 5 July, 22 July, 5 Aug. Sprayed with undiluted BOV at 15 gals: 21 Aug. Lifted (Pentland Dell only): 16 Oct.
Previous crops: Grass 1959 - 67.

NOTE: No yields were taken from the Arran Pilot plots which were sampled fortnightly to assess the rate of bulking and incidence of coiled sprout and *Verticillium nubilum*.

Standard errors per sub plot.
Total tubers: 1.097 or 8.5% (30 d.f.)

68/De/6.2

SUMMARY OF RESULTS

PENTLAND DELL

	CP	CO	OO	O	F	Mean
TOTAL TUBERS						
	(±0.388)*		(±0.317)*			(±0.306)
WO	10.27	15.20	13.37	13.65	12.25	12.95
WW	9.25	16.28	13.17	13.42	12.38	12.90
			(±0.388)			(±0.274)
	CP		10.09	9.44		9.76
	CO		16.97	14.51		15.74
	OO		13.53	13.00		13.27
Mean (±0.224)			13.53	12.32		12.92

* For use in horizontal and interaction comparisons only

68/De/6.3

PENTLAND DELL						
	CP	CO	OO	O	F	Mean
	% WARE					
O	96.8	98.0	93.4	96.0	96.1	96.1
W	97.1	98.6	93.4	96.6	96.2	96.4
		CP		97.0	96.9	97.0
		CO		98.4	98.2	98.3
		OO		93.5	93.2	93.4
Mean				96.3	96.1	96.2

TABLE 1
FISH CATCHES

Year	1950	1951	1952	1953	1954	1955
1,000	1,200	2,500	4,000	5,500	6,000	6,500
1,300	2,000	3,000	4,000	5,000	6,000	6,500
1,700	2,500	3,500	4,500	5,500	6,500	7,000
2,000	3,000	4,000	5,000	6,000	7,000	7,500
2,300	3,500	4,500	5,500	6,500	7,500	8,000
2,600	4,000	5,000	6,000	7,000	8,000	8,500
2,900	4,500	5,500	6,500	7,500	8,500	9,000
3,200	5,000	6,000	7,000	8,000	9,000	9,500
3,500	5,500	6,500	7,500	8,500	9,500	10,000