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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					
	$(\pm 0.388)^*$		$(\pm 0.317)^*$			(± 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

