

POTATOES

(70/R/P/2)

Chemicals and seed-borne fungi, Great Knott II 1970.

Design: 4 randomised blocks of 2 plots, split into 8. (Plus one extra block for sampling).

Area of each sub-plot: 0.0036. Area harvested: 0.0036.

Treatments: All combinations of:-

Whole plots: 1. Varieties: King Edward (KE), Pentland Crown (PC).

Sub-plots: 2. Seed treatment with chemicals: Benomyl powder (B), thiabendazole powder (T).

3. Rates of application: Diluted with kaolin dust to give 1% (1), 5% (2), 10% (3) a.i.

Together with additional treatments to sub-plots: None (0), kaolin dust (K).

NOTE: (1) All dust treatments were at 10 lb per ton of seed potatoes.

Basal applications: 10 cwt (13:13:20). Weedkiller: Linuron at 1 lb plus paraquat at 0.375 lb ion in 39 gals. Fungicide: Mancozeb at 1.2 lb in 40 gals on 2 occasions. Insecticide: Demeton-s-methyl at 3.5 oz applied with the first mancozeb spray.

Cultivations, etc.: Ploughed: 28 Oct, 1969. Basal NPK applied: 23 Apr, 1970. Rotary cultivated: 7 May. Potatoes machine planted: 8 May. Weedkiller applied: 23 May. Fungicide and insecticide applied: 29 July. Fungicide applied: 14 Aug. Sprayed with undiluted BOV at 15 gals: 3 Sept. Lifted: 18 Sept. Previous crops: Barley 1968, fallow 1969.

NOTE: (2) Emergence counts were made, and samples were taken during the season for disease assessments. Diseases in the eyes of tubers were assessed after riddling.

Standard errors per plot. Total tubers, tons:

Whole plot: 1.004 or 7.6% (3 d.f.)

Sub plot: 0.578 or 4.4% (42 d.f.)

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SUMMARY OF RESULTS

	O	K	B1	B2	B3	T1	T2	T3	Mean
TOTAL TUBERS: TONS									
	(1) and (2)								(±0.502)
KE	13.33	13.37	13.87	13.44	13.71	14.10	13.59	13.59	13.62
PC	12.69	12.91	13.24	12.86	12.95	12.42	12.43	12.82	12.79
Mean (±0.205)	13.01	13.14	13.55	13.15	13.33	13.26	13.01	13.20	13.21

(1) (±0.570) For use in vertical and diagonal comparisons only
 (2) (±0.289) For use in horizontal and interaction comparisons only

¾ WARE: 1.75 INCH

KE	74.5	77.6	76.9	75.6	76.2	78.5	78.3	79.2	77.1
PC	95.6	95.9	95.8	96.4	96.0	95.4	95.9	95.2	95.8
Mean	85.0	86.7	86.4	86.0	86.1	87.0	87.1	87.2	86.4