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85/W/CS/316 Varieties and Pcn Tolerance - Potatoes

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85/W/CS/316

VARIETIES AND PCN TOLERANCE

Object: In the first year to establish a range of populations of potato cyst nematode (PCN) for subsequent tests on varieties - Woburn, Horsepool.

Sponsor: A.G. Whitehead.

The first year, potatoes.

Design: 3 randomised blocks of 32 plots.

Whole plot dimensions: 2.84 x 6.10.

Treatments:

VARIETY	Varieties:
CARA	Cara
CROWN	Pentland Crown
CA CR	Cara plants alternating with Pentland Crown plants within the ridges
CA CA CR	Two Cara plants alternating with one Pentland Crown plant within the ridges

NOTE: Eight replicates of each treatment were present in each block to allow for future treatments.

Basal applications: Manures: FYM at 50 t. (0:18:36) at 690 kg. (10:10:15+4.5 Mg) at 2330 kg. Weedkillers: Linuron at 0.90 kg with paraquat at 0.50 kg ion in 500 l. Fungicides: Mancozeb at 1.4 kg on six occasions, with the insecticide on the second occasion, in 250 l. Fentin acetate with maneb (as 'Brestan 60' at 0.50 kg) in 250 l. Insecticide: Pirimicarb at 0.14 kg.

Cultivations, etc.: - Straw burnt: 13 Aug, 1984. Heavy spring-tine cultivated: 14 Aug. Subsoiled, tines 45 cm deep, 142 cm apart, FYM applied: 11 Jan, 1985. PK applied: 24 Jan. Ploughed: 31 Jan. NPK Mg applied: 9 Apr. Heavy spring-tine cultivated: 12 Apr. Rotary cultivated, potatoes planted: 24 Apr. Weedkillers applied: 29 May. Mancozeb applied: 20 June, 3 July, 23 July, 6 Aug, 14 Aug, 7 Sept. Insecticide applied: 3 July. 'Brestan 60' applied: 21 Aug. Haulm mechanically destroyed: 26 Sept. Lifted: 2 Oct. Previous crops: S. barley 1983, w. oats 1984.

NOTE: Soil samples were taken before planting and after harvest for cyst and egg counts of potato cyst nematode.

85/W/CS/316

TOTAL TUBERS TONNES/HECTARE

***** TABLES OF MEANS *****

VARIETY	CARA	CROWN	CA CR	CA CA CR	MEAN
	50.4	52.1	56.7	55.5	53.7

***** STANDARD ERRORS OF DIFFERENCES OF MEANS *****

TABLE	VARIETY
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SED	1.79

***** STRATUM STANDARD ERRORS AND COEFFICIENTS OF VARIATION *****

STRATUM	DF	SE	CV%
BLOCK.WP	90	6.20	11.5
PLOT AREA HARVESTED	0.00087		