

81/R/PE/1 and 81/W/PE/1

PEAS

EFFECTS OF PESTS AND PATHOGENS

Object: To assess the benefits from three amounts of pest and disease control on peas - Rothamsted (R) Long Hoos IV 4 and Woburn (W) Butt Close.

Sponsors: J. McEwen, A.J. Cockbain, K.E. Fletcher, G.A. Salt, A.G. Whitehead, D.P. Yeoman.

Design: 6 randomised blocks of 3 plots.

Whole plot dimensions: 4.27 x 7.62.

Treatments:

PATHCONT	Pest & pathogen control:
STANDARD	Thiram seed dressing
ENHANCED	Thiram seed dressing Phorate at 2.2 kg, combine drilled on 8 Apr (R), 15 Apr (W)
FULL	Thiram seed dressing Aldicarb at 10 kg to seedbed on 8 Apr (R), 13 Apr (W)

Basal applications:

Long Hoos IV 4 (R): Manures: Chalk at 2.9 t. Weedkillers: Glyphosate at 1.5 l in 340 l, trietazine and simazine (as 'Remtal SC' at 3.0 l) in 340 l. Desiccant: Diquat at 0.59 kg ion in 340 l.

Butt Close (W): Manures: (0:14:28) at 340 kg. Weedkillers: Trietazine and simazine (as 'Remtal SC' at 1.9 l) in 280 l. Desiccant: Diquat 0.49 kg ion in 340 l.

Seed: Filby, dressed thiram, sown at 250 kg (R), 210 kg (W).

Cultivations, etc.:-

Long Hoos IV 4 (R): Glyphosate applied: 8 Sept, 1980. Chalk applied: 20 Nov. Ploughed: 4 Dec. Rotary harrowed, seed sown: 8 Apr, 1981. 'Remtal SC' applied: 22 Apr. Desiccant applied: 14 Aug. Combine harvested: 25 Aug. Previous crops: Potatoes 1979, s. barley 1980.

Butt Close (W): Ploughed: 20 Nov, 1980. Spring-tine cultivated: 8 Apr, 1981. PK applied, rotary cultivated: 13 Apr. Seed sown: 15 Apr. Weedkillers applied: 21 Apr. Desiccant applied: 11 Aug. Combine harvested: 17 Aug. Previous crops: W. wheat 1979, s. barley 1980.

NOTE: Observations on pests and diseases were made during the season. Nitrogen percentages of grain were measured.

81/R/PE/1 LONG HOOS IV (R)

GRAIN TONNES/HECTARE

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

PATHCONT	STANDARD	ENHANCED	FULL	MEAN
	2.68	3.02	3.22	2.97

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

TABLE	PATHCONT
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SED	0.144

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.249	8.4

GRAIN MEAN DM% 84.7

PLOT AREA HARVESTED 0.00122

81/W/PE/1 BUTT CLOSE (W)

GRAIN TONNES/HECTARE

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

PATHCONT	STANDARD	ENHANCED	FULL	MEAN
	1.93	2.14	2.29	2.12

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

TABLE	PATHCONT
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SED	0.187

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

STRATUM	DF	SE	CV%
BLOCK.WP	10	0.323	15.3

GRAIN MEAN DM% 86.0

PLOT AREA HARVESTED 0.00122