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# Yields of the Field Experiments 1987

[Full Table of Content](#)

87/R/PE/1  
Effects of Pea Seed-borne Mosaic Virus - Peas  
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Rothamsted Research  
1988

## 87/R/PE/1 Effects of Pea Seed-borne Mosaic Virus - Peas

### Rothamsted Research

Rothamsted Research (1988) *87/R/PE/1 Effects of Pea Seed-borne Mosaic Virus - Peas ; Yields Of The Field Experiments 1987*, pp 202 - 203 - DOI: <https://doi.org/10.23637/ERADOC-1-37>

87/R/PE/1

PEAS

# EFFECTS OF PEA SEED-BORNE MOSAIC VIRUS

Object: To study the transmission, symptoms and effects on yield of pea seed-borne mosaic virus in two varieties of peas with and without insecticide - Long Hoos III 2.

Sponsor: A.J. Cockbain.

Design: 4 randomised blocks of 2 whole plots split into 3.

Whole plot dimensions: 9.2 x 5.0.

Treatments: All combinations of:-

Whole plots

- |                |  |
|----------------|--|
| 1. INSECTICIDE | Insecticide:   |
| NONE           | None   |
| PP 321         | 'PP 321' applied at 0.20 l and pirimicarb at 0.14 kg in 220 l on 1 July, 1986, 10 July and 24 July |

Sub plots

- |            |  |
|------------|--|
| 2. VARIETY | Varieties:   |
| PROGR H    | Progretha, healthy stock, sown at 200 kg                           |
| WAVER H    | Waverex, healthy stock, sown at 200 kg                             |
| WAVER I    | Waverex, seed infected pea seed-borne mosaic virus, sown at 140 kg |

NOTE: Plots were netted against bird damage from the end of May until harvest.

Basal applications: Manure: Muriate of potash at 520 kg. Weedkillers: Glyphosate at 1.4 kg. Simazine at 0.17 kg and trietazine at 1.2 kg in 220 l. Desiccant: Diquat at 0.84 kg ion in 220 l.

Cultivations, etc.: - K applied: 16 Sept, 1986. Glyphosate applied: 1 Oct. Ploughed: 28 Nov. Deep-tine cultivated twice: 28 Apr, 1987. Spring-tine cultivated, seed sown, rolled: 29 Apr. Simazine and trietazine applied: 5 May. Desiccant applied: 15 Sept. Combine harvested: 22 Sept. Previous crops: Potatoes 1985, s. barley 1986.

- NOTES: (1) Aphid numbers were assessed during the growing season. Virus incidence was assessed in the plants during the season and in the seed from all plots after harvest.
- (2) Because of weather conditions there was a long period between crop maturity and combine harvesting during which much grain was shed.

87/R/PE/1

GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

VARIETY INSC TCDE	PROGR H	WAVER H	WAVER I	Mean
NONE	1.10	0.33	0.20	0.54
PP 321	1.23	0.60	0.28	0.70
Mean	1.16	0.46	0.24	0.62

\*\*\* Standard errors of differences of means \*\*\*

Table	VARIETY	INSC TCDE*
s.e.d.	0.070	0.099

\* Within the same level of INSC TCDE only

\*\*\*\*\* Stratum standard errors and coefficients of variation \*\*\*\*\*

Stratum	d.f.	s.e.	cv%
BLOCK.WP.SP	12	0.141	22.6

GRAIN MEAN DM% 73.6

SUB PLOT AREA HARVESTED 0.00072