

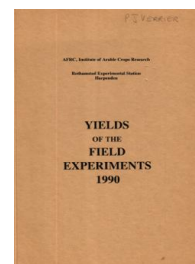
Thank you for using eradoc, a platform to publish electronic copies of the Rothamsted Documents. Your requested document has been scanned from original documents. If you find this document is not readable, or you suspect there are some problems, please let us know and we will correct that.



ROTHAMSTED
RESEARCH

Yields of the Field Experiments 1990

[Full Table of Content](#)



90/R/SU/2 Row Spacings and Seed Rates - Sunflowers

Rothamsted Research

Rothamsted Research (1991) *90/R/SU/2 Row Spacings and Seed Rates - Sunflowers* ; Yields Of The Field Experiments 1990, pp 145 - 146 - DOI: <https://doi.org/10.23637/ERADOC-1-42>

90/R/SU/2

SUNFLOWERS

ROW SPACINGS AND SEED RATES

Object: To study the effects of three row spacings and three seed rates on growth, disease and yield of sunflowers - Great Harpenden I.

Sponsors: V.J. Church, C.J. Rawlinson.

Design: 4 randomised blocks of 9 plots.

Whole plot dimensions: Wide and narrow rows: 3.0 x 10.0
Medium rows: 3.04 x 10.0.

Treatments: All combinations of:-

- | | |
|-------------|-------------------------|
| 1. ROW SPAC | Spacing between rows: |
| NARROW | 25 cm |
| MEDIUM | 38 cm |
| WIDE | 50 cm |
| 2. POPULATN | Seeds sown per hectare: |
| 80 | 80,000 |
| 120 | 120,000 |
| 160 | 160,000 |

NOTE: Plants were netted against birds from sowing until harvest.

Basal applications: Manures: (13:13:21) at 380 kg. Weedkillers: Trifluralin at 1.1 kg in 200 l. Linuron at 0.50 kg in 200 l. Desiccant: Diquat at 0.60 kg ion applied with a wetting agent, 'Vassgrow' at 0.22 l, in 220 l. Irrigation: 22 mm on each of two occasions.

Seed: Vincent.

Cultivations, etc.:- Ploughed: 1 Sept, 1989. Rolled: 4 Sept. Deep-tine cultivated: 24 Nov. Spring-tine cultivated, NPK applied: 12 Mar, 1990. Trifluralin applied, spring-tine cultivated twice: 24 Apr. Seed sown: 26 Apr. Linuron applied: 1 May. Irrigation applied: 3 and 25 May. Desiccant applied: 5 Sept. Hand harvested: 12 Sept. Previous crops: W. wheat 1988 and 1989.

NOTE: Plant heights and head diameters were measured and plants counted at maturity. Botrytis was assessed in late summer.

90/R/SU/2

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

POPULATN	80	120	160	Mean
ROW SPAC				
NARROW	3.17	3.55	3.03	3.25
MEDIUM	3.25	3.28	2.85	3.13
WIDE	3.43	3.26	3.18	3.29
Mean	3.28	3.37	3.02	3.22

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

ROW SPAC	POPULATN	ROW SPAC POPULATN
0.127	0.127	0.220

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	24	0.311	9.7

GRAIN MEAN DM% 76.3

PLOT AREA HARVESTED NARROW	0.00125
PLOT AREA HARVESTED MEDIUM	0.00114
PLOT AREA HARVESTED WIDE	0.00150