ROTHAMSTED RESEARCH

# Yields of the Field Experiments 1967

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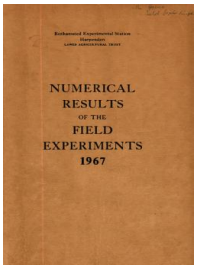


## 67/R/RRA101/DG/1 Oilseed Rape - Row Spacing, Seed Rate and N

### Rothamsted Research

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67/Dg/1.1

# OILSEED RAPE

(RRa 101)

Row spacing, seed rates and N - Highfield IV, 1967.

Design: 5 randomised blocks of 4 plots, split for N.

Area of each sub plot: 0.0129. Area harvested: 0.0092.

Treatments: All combinations of:-
Whole plots: 1. Row spacing: 20 inches (W), 4 inches (N).
2. Seed rate: 5 lb (L), 10 lb (H).
Sub plots: 3. N: 1.0 (N1), 1.4 (N2), 1.8 (N3) cwt as basal compound fertiliser plus 'Nitro-Chalk'.

Basal applications: 750 lb (15:15:15) broadcast by drill. Ground chalk at 2 tons (part area), 4 tons (remainder). Insecticide: Malathion at 18 oz in 30 gals.

Cultivations, etc.: Ploughed: Nov 4, 1966. Ground chalk applied: Jan 4, 1967. Basal NPK applied: Mar 28. Seed drilled: Mar 30. 'Nitro-Chalk' applied: Mar 31. Insecticide applied: June 16. Combine harvested: Sept 6. Variety: Nilla. Previous crops: Barley 1965 and 1966.

NOTE: At harvest the crop was leaning down the length of the plots in a south-westerly direction. Alternate whole plots were cut by the combine working in opposite directions. On plots where the combine moved south-west (with the lie of the crop) yields were less than on plots cut the other way. The estimated difference of grain yield was 0.5 cwt per acre. The means presented have been adjusted accordingly. (The sub-plot comparisons are not affected as all sub-plots in one whole plot were cut the same way). The comparison of seed rates is also not affected as, by a chance of the randomisation the plots of each level were harvested half in each direction.

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Standard errors per plot.
Grain (at 90% dry matter). Whole plot: 1.37 or 6.6% (11 d.f.)
Sub plot: 3.80 or 18.1% (32 d.f.)
Yield of fixed oil: lb per acre.
Whole plot: 55.4 or 6.7% (11 d.f.)
Sub plot: 149.3 or 18.1% (32 d.f.)

## SUMMARY OF RESULTS

GRAIN (AT 90% D.M.) CWT PER ACRE

| | L | H | N1 | N2 | N3 | Mean |
|---|---|---|---|---|---|---|
| | (±0.61) | | | (1) and (2) | | (±0.43) |
| W | 21.0 | 21.2 | 19.2 | 21.5 | 22.5 | 21.1 |
| N | 20.0 | 21.9 | 20.3 | 21.4 | 21.1 | 20.9 |
| | | | | (1) and (2) | | (±0.43) |
| | | L | 19.5 | 21.0 | 20.9 | 20.5 |
| | | H | 20.0 | 21.9 | 22.7 | 21.5 |
| | | Mean (±0.85) | 19.7 | 21.4 | 21.8 | 21.0 |

(1) (±1.07) For use in vertical and diagonal comparisons
(2) (±1.20) For use in horizontal and interaction comparisons

Mean D.M. %: 84.0

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| | L | H | N1 | N2 | N3 | Mean |
|---|---|---|---|---|---|---|
| | | | % FIXED OIL | | | |
| W | 38.8 | 39.5 | 39.4 | 39.2 | 38.9 | 39.1 |
| N | 38.9 | 39.2 | 40.5 | 38.5 | 38.3 | 39.1 |
| | | L | 39.6 | 38.3 | 38.7 | 38.8 |
| | | H | 40.3 | 39.4 | 38.5 | 39.4 |
| | | Mean | 39.9 | 38.8 | 38.6 | 39.1 |
| | | | YIELD OF FIXED OIL: LB PER ACRE | | | |
| | (±24.8) | | | (1) and (2) | | (±17.5) |
| W | 819 | 841 | 762 | 848 | 881 | 830 |
| N | 781 | 866 | 826 | 831 | 815 | 824 |
| | | | | (1) and (2) | | (±17.5) |
| | | L | 777 | 810 | 814 | 800 |
| | | H | 811 | 869 | 882 | 854 |
| | | Mean (±33.4) | 794 | 839 | 848 | 827 |

(1) (±42.3) For use in vertical and diagonal comparisons
(2) (±47.2) For use in horizontal and interaction comparisons

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