

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 1987

[Full Table of Content](#)

ROTHAMSTED RESEARCH
Rothamsted Experimental Station
Harpenden
Herts
AL5 2JQ
UK
Tel: +44 (0)1494 473900
Fax: +44 (0)1494 473901
Email: enquiries@ Rothamsted.ac.uk
Website: [Rothamsted.ac.uk](http:// Rothamsted.ac.uk)
© Rothamsted Research 2008

87/R/RA/7 Forms and Times of N - W. Oilseed Rape

Rothamsted Research

Rothamsted Research (1988) *87/R/RA/7 Forms and Times of N - W. Oilseed Rape* ; Yields Of The Field Experiments 1987, pp 232 - 234 - DOI: <https://doi.org/10.23637/ERADOC-1-37>

87/R/RA/7

WINTER OILSEED RAPE

FORMS AND TIMES OF N

Object: To compare the effects of single and divided dressings of urea and 'Nitro-Chalk' on the yield of w. oilseed rape - Great Knott II.

Sponsor: R.J. Darby.

Design: 2 randomised blocks of 2 plots split into 15 sub plots.

Whole plot dimensions: 30.0 x 27.0.

Treatments: All combinations of:-

Whole plots

1. VARIETY Variety:

ARIANA
MIKADO

Sub plots

2. N FORM Forms of nitrogen fertilizer:

AMM NIT Ammonium nitrate (as 'Nitro-Chalk')
UREA Prilled urea

3. N TIME Times of applying a total dressing of 200 kg N:

4 - - - All on 23 Feb, 1987
3 1 - - Three quarters on 23 Feb, one quarter on 16 Mar
3 - 1 - Three quarters on 23 Feb, one quarter on 9 Apr
2 2 - - Half on 23 Feb, half on 16 Mar
2 - 2 - Half on 23 Feb, half on 9 Apr
2 1 1 - Half on 23 Feb, quarter on 16 Mar, quarter on 9 Apr
1 1 1 1 One quarter on 23 Feb and 16 Mar and 9 Apr and 27 Apr

plus two extra treatments

EXTRA

NONE AR No nitrogen fertilizer ARIANA
NONE MI No nitrogen fertilizer MIKADO

NOTE: Seed was dressed with gamma HCH, thiram and fenpropimorph and sown at 8 kg on 3 Sept, 1986.

Basal applications: Weedkillers: Sodium trichloroacetate at 16 kg in 200 l. Clopyralid and propyzamide (as 'Matrikerb' at 1.6 kg) in 500 l. Bird repellent: 'Hoppit' at 3.0 l in 500 l. Desiccant: Diquat at 0.60 kg ion with a wetting agent ('Agral' at 0.50 l) in 500 l.

87/R/RA/7

Cultivations, etc.:— Heavy spring-tine cultivated, cultivated with rotary grubber: 12 Aug, 1986. Rotary harrowed: 31 Aug. Sodium trichloroacetate applied, harrowed: 1 Sept. Clopyralid and propyzamide applied: 20 Nov. Bird repellent applied: 24 Dec. Desiccant with wetting agent applied: 30 July, 1987. Combine harvested: 5 Aug. Previous crops: S. wheat 1985, w. barley 1986.

NOTE: Alternaria infection was assessed in July. Percentage of oil in grain was measured.

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

N FORM N TIME	AMM NIT	UREA	Mean
4 - - -	2.65	2.79	2.72
3 1 - -	2.77	2.74	2.76
3 - 1 -	2.61	2.76	2.68
2 2 - -	2.76	2.73	2.74
2 - 2 -	2.64	2.62	2.63
2 1 1 -	2.67	2.83	2.75
1 1 1 1	2.78	2.78	2.78
Mean	2.70	2.75	2.72

VARIETY N TIME	ARIANA	MIKADO	Mean
4 - - -	2.73	2.71	2.72
3 1 - -	2.81	2.71	2.76
3 - 1 -	2.63	2.74	2.68
2 2 - -	2.63	2.86	2.74
2 - 2 -	2.60	2.67	2.63
2 1 1 -	2.75	2.74	2.75
1 1 1 1	2.64	2.92	2.78
Mean	2.68	2.76	2.72

VARIETY N FORM	ARIANA	MIKADO	Mean
AMM NIT	2.68	2.72	2.70
UREA	2.69	2.81	2.75
Mean	2.68	2.76	2.72

87/R/RA/7

GRAIN (AT 90% DRY MATTER) TONNES/HECTARE

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

N FORM VARIETY N TIME	AMM NIT ARIANA	MIKADO	UREA ARIANA	MIKADO
4 - - -	2.69	2.62	2.78	2.80
3 1 - -	2.84	2.71	2.77	2.71
3 - 1 -	2.55	2.67	2.70	2.81
2 2 - -	2.66	2.85	2.59	2.87
2 - 2 -	2.60	2.68	2.59	2.66
2 1 1 -	2.83	2.52	2.68	2.97
1 1 1 1	2.59	2.96	2.68	2.88
EXTRA	NONE AR 1.13	NONE MI 1.13	Mean 1.13	

Grand mean 2.62

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

Table	EXTRA	N TIME	N FORM	
s.e.d.	0.190	0.095	0.051	
Table	N TIME N FORM	N TIME* VARIETY	N FORM* VARIETY	N TIME* N FORM VARIETY*
s.e.d.	0.134	0.134	0.072	0.190

* Within the same level of VARIETY only

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP.SP	28	0.190	7.3
MEAN DM%	84.4		
SUB PLOT AREA HARVESTED	0.00299		