

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 1996

[Full Table of Content](#)



96/R/WW/3 Plant N Indicators - W. Wheat

Rothamsted Research

Rothamsted Research (1997) *96/R/WW/3 Plant N Indicators - W. Wheat* ; Yields Of The Field Experiments 1996, pp 110 - 111 - DOI: <https://doi.org/10.23637/ERADOC-1-51>

96/R/WW/3

WINTER WHEAT

PLANT N INDICATORS

Object: To relate chlorophyll concentrations in individual leaves of w. wheat to nitrogen supply and crop yield - Pastures.

Sponsors: P.B. Barraclough, S. Haysman.

Design: 4 randomised blocks of 10 plots.

Whole plot dimensions: 3.0 x 17.0.

Treatments:

N	Timing and rate of nitrogen (kg N):			
	Early March	Mid- April	Mid- May	Total
1	40	80	0	120
2	40	80	20	140
3	40	80	40	160
4	40	80	60	180
5	40	80	80	200
6	40	80	100	220
7	40	120	0	160
8	40	160	0	200
9	40	200	0	240
10	40	240	0	280

Experimental diary:

- 29-Jul-95 : B : Straw baled.
05-Aug-95 : B : PK as (0:20:32) at 1407 kg.
25-Sep-95 : B : Ploughed and furrow pressed.
26-Sep-95 : B : Rotary harrowed, Hereward, dressed Panoctine, drilled at 380 seeds per m².
23-Oct-95 : B : Avadex BW Granular at 22.5 kg.
20-Nov-95 : B : MSS Iprofile at 2.6 l with Stomp 400 SC at 2.6 l in 200 l.
28-Feb-96 : B : Tiger 90 (90% S) at 35 kg.
07-Mar-96 : B : 34.5% N at 116 kg.
03-Apr-96 : T : N 1, 2, 3, 4, 5, 6: 34.5% N at 232 kg.
 : T : N 7: 34.5% N at 348 kg.
 : T : N 8: 34.5% N at 464 kg.
 : T : N 9: 34.5% N at 580 kg.
 : T : N 10: 34.5% N at 696 kg.
30-Apr-96 : B : Starane 2 at 1.0 l with Barclay Holdup at 2.3 l in 200 l.
29-May-96 : T : N 2: 34.5% N at 58 kg.
 : T : N 3: 34.5% N at 116 kg.
 : T : N 4: 34.5% N at 174 kg.
 : T : N 5: 34.5% N at 232 kg.
 : T : N 6: 34.5% N at 290 kg.

96/R/WW/3

Experimental diary:

07-Jun-96 : B : Alto 100 SL at 0.6 l with Mallard 750 EC at 0.4 l in
320 l.

15-Aug-96 : B : Combine harvested.

Previous crops: W. beans 1994, w. oats 1995.

NOTE: Plant numbers and soil nitrogen were measured in March. Chlorophyll meter readings were taken on nine occasions. Growth analysis measurements were made on five occasions, this included dry matter and nitrogen content of leaf and shoots, growth area index, leaf area and chlorophyll in leaves. Grain and straw were analysed for nitrogen content.

GRAIN TONNES/HECTARE

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

N	
1	9.64
2	9.98
3	10.18
4	10.46
5	10.36
6	10.53
7	10.19
8	10.68
9	10.87
10	10.74
Mean	10.36

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

N
0.186

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	27	0.263	2.5
GRAIN MEAN DM%	85.3		
PLOT AREA HARVESTED	0.00253		