

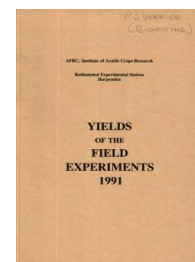
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## Yields of the Field Experiments 1991

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### 91/R/WW/8 Foliar Potassium Nitrate - W. Wheat

#### Rothamsted Research

Rothamsted Research (1992) *91/R/WW/8 Foliar Potassium Nitrate - W. Wheat* ; Yields Of The Field Experiments 1991, pp 121 - 122 - DOI: <https://doi.org/10.23637/ERADOC-1-46>

91/R/WW/8

**WINTER WHEAT**

**FOLIAR POTASSIUM NITRATE**

**Object:** To study the effects of foliar applications of potassium nitrate and urea on the yield and nutrient composition of w. wheat - Summerdells II.

**Sponsor:** P.B. Barraclough.

**Design:** 5 randomised blocks of 9 plots.

**Whole plot dimensions:** 3.0 x 15.0.

**Treatments:**

<b>FOLIAR N</b>	Foliar nitrogen; all applications were divided equally and applied on two closely spaced days:
NONE	None (duplicated)
K20E	20 kg K as potassium nitrate at GS 39 on 29 and 30 May, 1991
K20EU40E	" " " " " " plus 40 kg N as urea on 29 and 30 May
U40E	40 kg N as urea on 29 and 30 May
K5M	5 kg K as potassium nitrate at GS 59 on 17 and 20 June
K20M	20 kg K " " " " " " 17 and 20 June
K20EK20M	" " " " " " on 29 and 30 May repeated on 17 and 20 June
K20MK20L	" " " " " " on 17 and 20 June repeated at GS 71 on 9 and 10 July

**NOTE:** All plots received N at 120 kg as 'Nitram' applied on 3 Apr, 1991.

**Basal applications:** Manures: (0:20:32) at 980 kg. Weedkillers: Bifenox at 0.95 kg and chlorotoluron at 3.5 kg in 200 l. Glyphosate at 1.4 kg in 200 l. Fungicide: Fenpropimorph at 0.38 kg in 200 l.

**Seed:** Mercia, sown at 170 kg.

**Cultivations, etc.:-** Deep-tine cultivated: 6 Oct, 1990. Ploughed, furrow pressed: 10 Oct. Rotary harrowed, seed sown: 13 Oct. Bifenox and chlorotoluron applied: 13 Nov. PK applied: 6 Dec. Fungicide applied: 9 May, 1991. Glyphosate applied: 12 Aug. Combine harvested: 22 Aug. Previous crops: W. oilseed rape 1989, potatoes 1990.

**NOTES:** (1) Leaf samples were taken approximately five days after foliar treatment applications to measure N and K contents.  
(2) Components of yield were measured.

91/R/WW/8

**GRAIN TONNES/HECTARE**

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

<b>FOLIAR N</b>	
NONE	8.71
K20E	8.58
K20EU40E	8.41
U40E	8.12
K5M	8.64
K20M	8.63
K20EK20M	8.89
K20MK20L	8.48
Mean	8.58

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

<b>FOLIAR N</b>	
0.113	min.rep
0.098	max-min

FOLIAR N  
max-min NONE v any of the remainder  
min.rep any of the remainder

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

Stratum	d.f.	s.e.	cv%
BLOCK.WP	33	0.179	2.1

GRAIN MEAN DM% 87.4  
PLOT AREA HARVESTED 0.00230