

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 1958

[Full Table of Content](#)



---

### 58/R/CA/2 Winter Wheat - Uptake of N

#### Rothamsted Research

Rothamsted Research (1959) *58/R/CA/2 Winter Wheat - Uptake of N* ; Yields Of The Field Experiments 1958, pp 78 - 79 - DOI: <https://doi.org/10.23637/ERADOC-1-181>

58/Ca/2.1

#### WINTER WHEAT

Uptake of nitrogen - Great Harpenden II 1958.

Design: 3 randomized blocks of 8 plots each.

Area of each plot: 0.0289 acres. Area harvested: 0.0129 acres.

Treatments: None (two plots per block) and all combinations of:-

Forms of nitrogen: Calcium nitrate; sulphate of ammonia, each at 100 lb N per acre.

Times of application of N: In autumn; in spring; half in autumn and half in spring.

Basal dressing: 5 cwt compound fertilizer (10%  $P_2O_5$ , 20%  $K_2O$ ) per acre applied by hand.

Cultivations, etc.: Ploughed: Sept 16, 1957. Compound fertilizer applied, seed drilled at  $2\frac{1}{2}$  bushels per acre, autumn nitrogen applied: Oct 5. Spring nitrogen applied: Mar 20, 1958. Sprayed with CMFP at 6 pints in 40 gallons per acre: Apr 30. Combine harvested: Sept 3. Variety: Cappelle. Previous crop: Fallow.

Standard error per plot.

Grain (at 85% dry matter): 2.33 cwt per acre or 5.3% (15 d.f.)

Note. The mineral nitrogen content of the soil and the total nitrogen content of the plants were determined at various stages of growth.

58/Ca/2.2

Summary of Results

Form of N	Time of application			Mean
	Autumn	Spring	Autumn & Spring	
Grain (at 85% dry matter): cwt per acre				
None		(±1.35)		(±0.78)
Calcium nitrate	44.8	42.7	42.4	43.9 <sup>(1)</sup>
Sulphate of ammonia	44.3	46.2	42.3	44.3
Mean (±0.95)	44.5	44.4	42.3	43.8
Difference (±1.90)	-0.5	+3.5	-0.1	+1.0
				(±1.10)
(1) ±0.95				

Straw (at 85% dry matter): cwt per acre

None				40.9
Calcium nitrate	44.0	38.4	43.2	41.9
Sulphate of ammonia	43.7	41.2	45.6	43.5
Mean	43.8	39.8	44.4	42.2
Difference	-0.3	+2.8	+2.4	+1.6

Mean dry matter % as harvested: Grain: 79.4  
Straw: 76.1