

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 1980

[Full Table of Content](#)



80/W/CS/11 Soil Structure

Rothamsted Research

Rothamsted Research (1981) *80/W/CS/11 Soil Structure* ; Yields Of The Field Experiments 1980, pp 99 - 100 - DOI: <https://doi.org/10.23637/ERADOC-1-31>

80/W/CS/11

SOIL STRUCTURE

Object: To study the residual effects of peat, at a range of nitrogen levels, on the yield of a sequence of crops - Woburn Stackyard II.

Sponsor: A.E. Johnston.

The 18th year, w. barley.

For previous years see 64/C/20(t), 65/C/19(t), 66/C/11(t), 67/C/8(t), 68/C/31(t), 69/W/CS/11(t), 70/W/CS/11(t), 71/W/CS/11. 72/W/CS/11(t) and 73-79/W/CS/11.

Design: Single replicate of 5 x 4.

Whole plot dimensions: 2.13 x 3.05.

Treatments: All combinations of:-

1. PEAT Peat (tonnes dry matter - total applied 1963-72):

0
8
55
110
165

2. N Nitrogen fertiliser (kg N)
cumulative to previous treatments:

0
50
100
150

Basal applications: Manures: P at 85 kg, as triple superphosphate, K at 300 kg, as potassium bicarbonate, Mg at 55 kg, as magnesium sulphate. Weedkillers: Ioxynil at 0.32 kg with mecoprop at 0.94 kg in 280 l applied twice, with tridemorph on the first occasion, with benomyl on the second. Fungicides: Tridemorph at 0.53 kg. Benomyl at 0.28 kg. Carbendazim at 0.25 kg plus tridemorph at 0.53 kg in 280 l.

Seed: Sonja, sown at 210 kg.

Cultivations, etc.: - P, K, Mg applied: 12 Sept, 1979. Hand dug: 20 Sept. Seed sown: 1 Oct. Weedkillers with tridemorph applied: 28 Nov. Weedkillers with benomyl applied: 1 Apr, 1980. N applied: 9 Apr. Carbendazim plus tridemorph applied: 29 Apr. Hand harvested: 18 July.

NOTE: (1) Soil and crop samples were taken for N, P, K and Mg analysis.
(2) N, P, K & Mg contents of soils and crop were measured.

80/W/CS/11

GRAIN TONNES/HECTARE

***** TABLES OF MEANS *****

N	0	50	100	150	MEAN
PEAT					
0	3.09	5.91	7.02	7.99	6.00
8	3.00	6.11	7.61	7.66	6.09
55	3.35	5.37	6.82	8.27	5.95
110	3.81	6.27	6.93	7.47	6.12
165	3.32	5.56	7.06	8.49	6.10
MEAN	3.31	5.84	7.09	7.98	6.05

GRAIN MEAN DM% 81.6

STRAW TONNES/HECTARE

***** TABLES OF MEANS *****

N	0	50	100	150	MEAN
PEAT					
0	2.89	5.20	6.42	6.87	5.34
8	2.62	6.24	7.19	6.87	5.73
55	3.34	4.90	6.31	7.64	5.55
110	3.65	6.12	6.40	6.76	5.73
165	3.15	5.71	6.68	6.85	5.60
MEAN	3.13	5.64	6.60	7.00	5.59

STRAW MEAN DM% 54.5

PLOT AREA HARVESTED 0.00065