

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 1972

[Full Table of Content](#)



72/R/CS/24 Pk and Take-all - Barley

Rothamsted Research

Rothamsted Research (1973) *72/R/CS/24 Pk and Take-all - Barley* ; Yields Of The Field Experiments 1972, pp 172 - 175 - DOI: <https://doi.org/10.23637/ERADOC-1-62>

72/R/CS/24

PK AND TAKE-ALL

Object: To study the effects of different amounts of phosphate, potash and nitrogen fertiliser on the yields and incidence of take-all (*Gaeumannomyces graminis* formerly *Ophiobolus graminis*) in continuous barley - West Barnfield II.

Sponsors: G.E.G. Mattingly, D.B. Slope.

The fifth year, barley.

For previous years see 68/C/16(t), 69/R/CS/24, 70/R/CS/24(t), and 71/R/CS/24.

Whole plot dimensions: 5.33 x 20.1. Sub plot area harvested: 0.00264.

Seed: Julia sown at 160 kg.

Cultivations, etc.: Sprayed with paraquat at 0.42 kg ion in 220 l: 24 Sept, 1971. Ground chalk applied at 5000 kg: 1 Nov. Ploughed: 12 Nov. N, P and K applied, seed drilled: 29 Mar, 1972. Sprayed with ioxynil, bromoxynil, 2,4-DP and MCPA ('Tetroxone' at 5.6 l in 220 l): 17 May. Combine harvested: 24 Aug.

NOTE: Samples were taken in spring and summer for estimation of incidence of root-rotting diseases.

Standard error per plot (pooled).

Grain, tonnes/hectare: 0.717 or 18.2% (39 d.f.)

72/R/CS/24

TABLES OF MEANS

GRAIN: TONNES/HECTARE

	0	1	P 4	6*	24*	Mean
K						
1	2.78	3.97	4.28	3.74	4.03	3.76
4	3.33	4.10	4.59	4.00	4.56	4.12
N						
1	2.86	3.59	4.12	3.76	4.74	3.81
2	2.58	4.00	5.02	3.90	3.89	3.88
3	3.75	3.78	4.14	3.94	4.92	4.10
4	3.01	4.78	4.46	3.91	3.63	3.96
Mean	3.05	4.04	4.44	3.87	4.29	3.94

	1	2	N 3	4
K				
1	3.35	4.23	3.59	3.87
4	4.28	3.53	4.61	4.05

* Applied 1968 only

STANDARD ERRORS OF DIFFERENCES

P	K	N	P K	P N	K N
0.254	0.161	0.227	0.359	0.508	0.321

Mean D.M. %: 81.9

72/R/CS/24

GRAIN: TONNES/HECTARE

K	1					4				
	0	1	4	6*	24*	0	1	4	6*	24*
N										
1	2.47	3.69	3.74	2.66	4.22	3.26	3.50	4.51	4.85	5.26
2	3.07	3.97	5.05	4.84	4.25	2.10	4.03	5.00	2.96	3.54
3	2.58	3.38	4.04	3.67	4.29	4.91	4.18	4.23	4.20	5.55
4	2.99	4.85	4.31	3.81	3.37	3.04	4.71	4.61	4.00	3.90

* Applied 1968 only

STANDARD ERROR OF DIFFERENCES

P
K
N

0.718

72/R/CS/24

STRAW: TONNES/HECTARE

	0	1	P 4	6*	24*	Mean
K						
1	3.13	4.11	4.25	3.73	4.27	3.90
4	3.30	4.09	4.75	3.94	4.62	4.14
N						
1	2.97	3.38	3.14	3.32	3.85	3.33
2	2.94	4.20	4.73	3.79	4.41	4.02
3	3.42	4.28	5.34	4.18	4.90	4.42
4	3.53	4.54	4.79	4.03	4.63	4.30
Mean	3.22	4.10	4.50	3.83	4.45	4.02

	1	2	N 3	4
K				
1	3.25	4.02	4.21	4.12
4	3.41	4.01	4.64	4.49

Mean D.M. %: 87.0

K	1					4				
	0	1	4	6*	24*	0	1	4	6*	24*
N										
1	2.98	3.25	3.35	3.08	3.61	2.96	3.52	2.94	3.57	4.08
2	2.96	4.26	4.67	3.90	4.32	2.92	4.14	4.80	3.69	4.50
3	3.10	4.28	4.60	4.10	4.96	3.74	4.28	6.09	4.26	4.84
4	3.47	4.67	4.40	3.84	4.21	3.59	4.41	5.19	4.23	5.05

* Applied 1968 only