ROTHAMSTED RESEARCH

Rothamsted - the Classical Experiments

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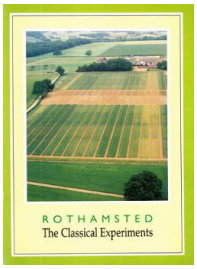

Hoosfield Spring Barley

Rothamsted Research

Rothamsted Research (1992) *Hoosfield Spring Barley ;* Rothamsted - The Classical Experiments , pp 19 - 20 **- DOI: https://doi.org/10.23637/ERADOC-1-189**

TABLE 3

Hoosfield Wheat after fallow (mean yields of grain, t ha⁻¹)

	Hoosfield wheat Years of fallow		Broadbalk wheat Unmanured continuous
	1	3	
1856-65	1.8	-	1.2
1973-82	1.5	2.0	1.6
1984-90	1.2	-	1.3

HOOSFIELD SPRING BARLEY

Spring barley has been grown continuously here since 1852. The experiment offers interesting contrasts to that on Broadbalk, being spring-sown, having been fallowed only four times to control weeds and testing not only nitrogen, minerals and FYM but also silicate of soda.

In 1968 a crop rotation of potatoes, beans and barley on small areas of some plots and a four-level N test on all plots were introduced. The effects of the two-year break on the yield of barley were small and the whole experiment has again grown continuous barley since 1979.

The design of the experiment is of a factorial nature with east-west strips (see plan) having the four combinations of:

(1) 0 *vs* P with

(2) 0 *vs* KMg

and north-south strips, which cross these, originally testing forms of nitrogen, all applied at the same rate of N:

(3) 0 *vs* sulphate of ammonia *vs* nitrate of soda *vs* rape cake (later castor meal)

The nitrate of soda strip was divided for a test of 0 *vs* silicate of soda.

Additional plots at the south side test FYM, since the experiment started, and residues of FYM applied only during 1852-71.

TABLE 4

Hoosfield Spring Barley

Mean yield (7 years 1984-90) of Triumph spring barley grain t ha⁻¹

	N0	N1	N2	N3
-	0.8	1.3	1.6	1.7
P	1.8	3.1	3.1	2.9
KMg	1.4	2.4	2.8	2.9
PKMg	1.9	3.9	4.9	5.0
FYM	6.0	6.5	6.6	6.5
	(-)-	(S)-	(-)S	(S)S
N3-	2.0	2.8	2.5	2.4
N3P	2.9	3.8	4.1	4.2
N3KMg	2.6	3.8	2.9	3.3
N3PKMg	5.5	5.5	5.5	5.4

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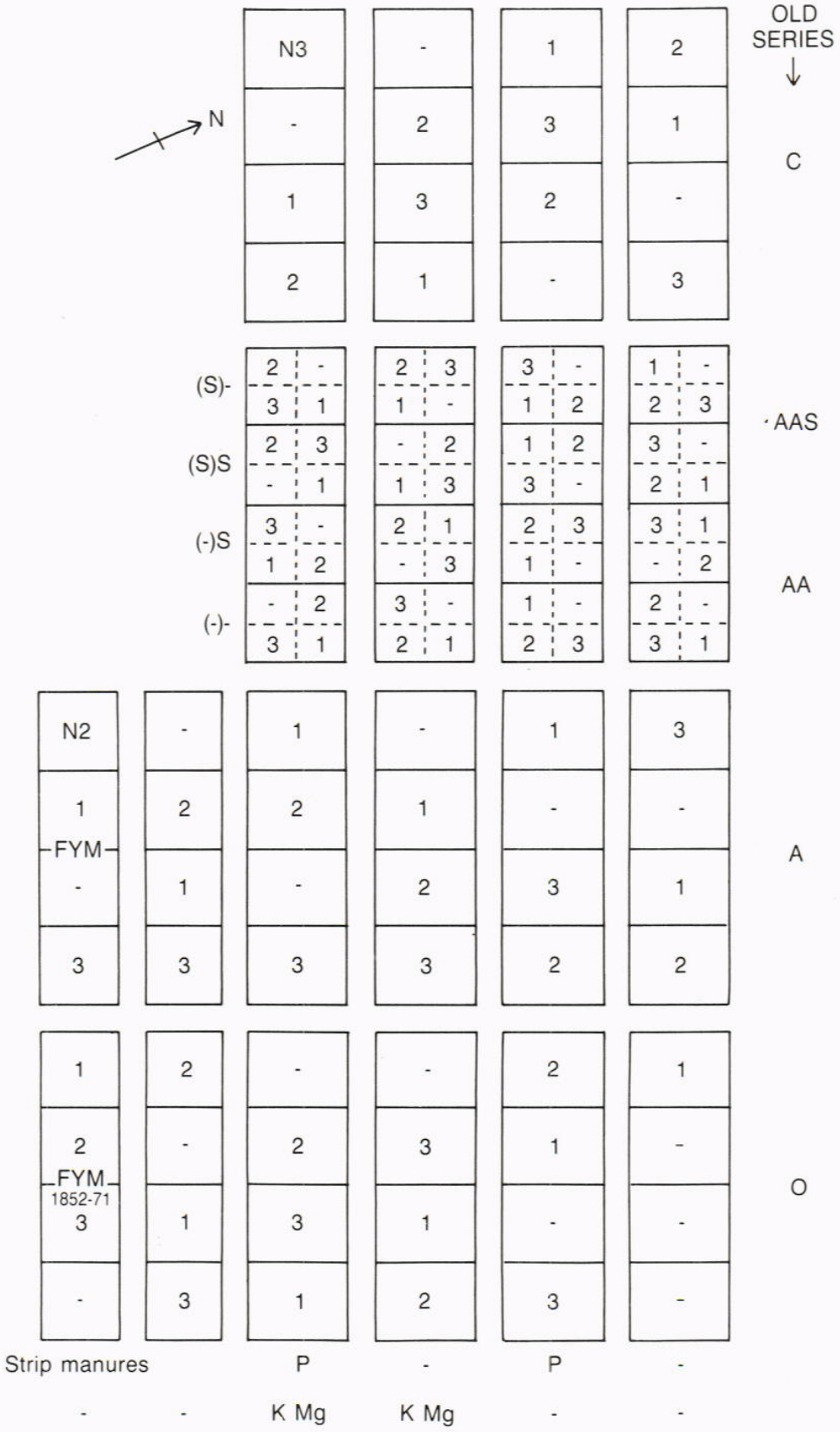
HOOSFIELD
Continuous Spring Barley



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