

Broadbalk wheat experiment plan 1926-1967

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Prepared by: Glendining, M.J., CAS Department, Rothamsted Research, Harpenden, Herts, AL5 2JQ, UK.

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Description: Experiment plan for the Broadbalk wheat experiment, 1926-1967, with details of fertilizer and manure treatments (not to scale).

- Page 1: Cover page
- Pages 2-3 Broadbalk experiment plan 1926-1967, showing plot layout and treatment codes, with full details of fertilizer and manure treatments applied.

Site: R/BK/1. Broadbalk field, Rothamsted Experimental Farm, Rothamsted Research, West Common, Harpenden, Hertfordshire, AL5 2JQ, UK. Latitude 51.80946, Longitude -0.37301

Related Resources:

- Johnston, A.E. & Garner, H.V. (1969) The Broadbalk Wheat Experiment 2. Historical Introduction. Rothamsted Report for 1968, part 2, pp12-25. 10.23637/ERADOC-1-34916
- Rothamsted Experimental Station (1970) Details of the Classical and Long-Term Experiments up to 1967, Rothamsted Experimental Station, Lawes Agricultural Trust, Harpenden UK, 128pp 10.23637/ERADOC-1-192

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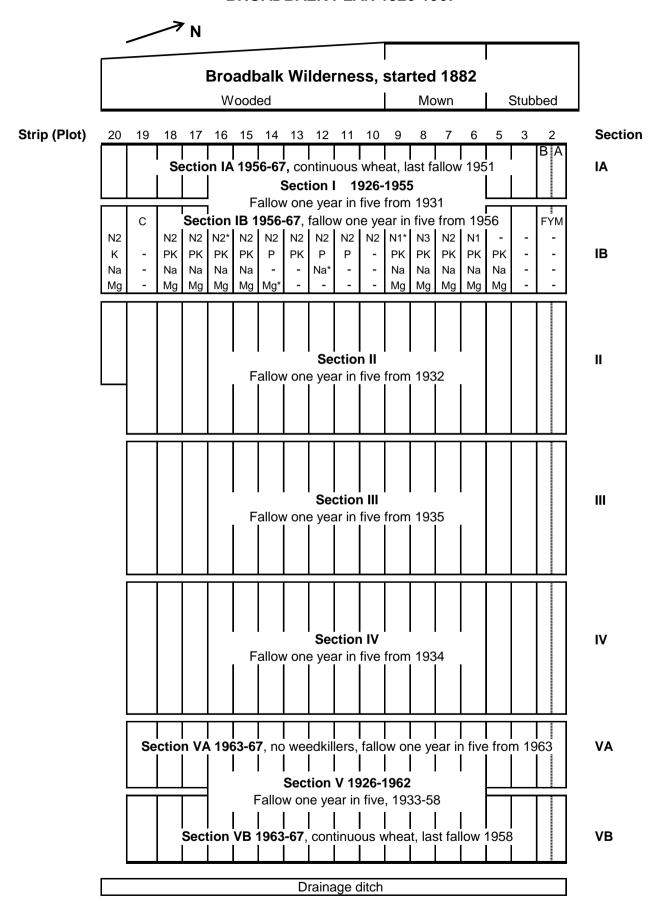
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BROADBALK PLAN 1926-1967



Fertilizer and organic manure treatments 1926-1967

Strip Treatments applied each year (since 1852)

- 2A FYM since 1885
- 2B FYM
- 3 No fertilizer or manure
- 5 PKNaMg
- 6 N1 PKNaMg
- 7 N2 PKNaMg
- 8 N3 PKNaMg
- 9 N1* PKNaMg since 1894; 9A and 9B received different treatments 1852-93
- 10 N2
- 11 N2 P
- 12 N2 P Na*
- 13 N2 PK
- 14 N2 P Mg*
- 15 N2 PKNaMg (timing of N application different to other plots, see below)
- 16 N4 PKNaMg 1852-64; unmanured 1865-83; N2*PKNaMg since 1884

Plots 17 and 18 treatments alternate each year:

- 17 N2 applied in even years; PKNaMg applied in odd years
- 18 N2 applied in odd years; PKNaMg applied in even years
- 19 Rape cake 1879-1940; castor bean meal since 1941 N1.5 P and rape cake 1852-78
- 20 N2 KNaMg since 1906, previously no manure or fertilizer

Annual treatment per hectare:

FYM: Farmyard manure at 35t

C: Rape cake 1926-1940, supplying approx. 96kgN (N2).

Castor bean meal 1941-1967, supplying approx. 96 kgN (N2)

P: 35 kgP as superphosphate

K: 90 kgK as potassium sulphate

Na: 16 kgNa as sodium sulphate

Na* 57 kgNa as sodium sulphate

Mg: 11 kgMg as magnesium sulphate

Mg* 31 kgMg as magnesium sulphate

Nitrogen: Annual treatment per hectare

N1: 48 kgN as ammonium sulphate

N1.5 72 kgN as ammonium sulphate

N2: 96 kgN as ammonium sulphate

N3: 144 kgN as ammonium sulphate

N4: 192 kgN as ammonuim sulphate

N1*: 48 kgN as sodium nitrate

N2*: 96 kgN as sodium nitrate

Timing of Nitrogen applications:

Ammonium sulphate:

1852-72 All applied in autumn

1873-77 All applied in autumn, except plot 15 in spring

1878-83 All applied in spring, except plot 15 in autumn

1884-1967 24 kgN applied in autumn, remainder in spring (except plot 15 all in autumn) Sodium nitrate:

1867-1967 All applied in spring, as one application 1867-98, as two equal amounts since 1899, applied from six days to six weeks apart