



## Broadbalk wheat experiment plan 1926-1967

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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](https://doi.org/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](https://doi.org/10.23637/ERADOC-1-192)

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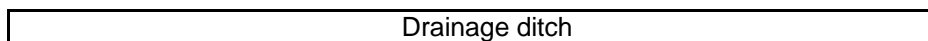
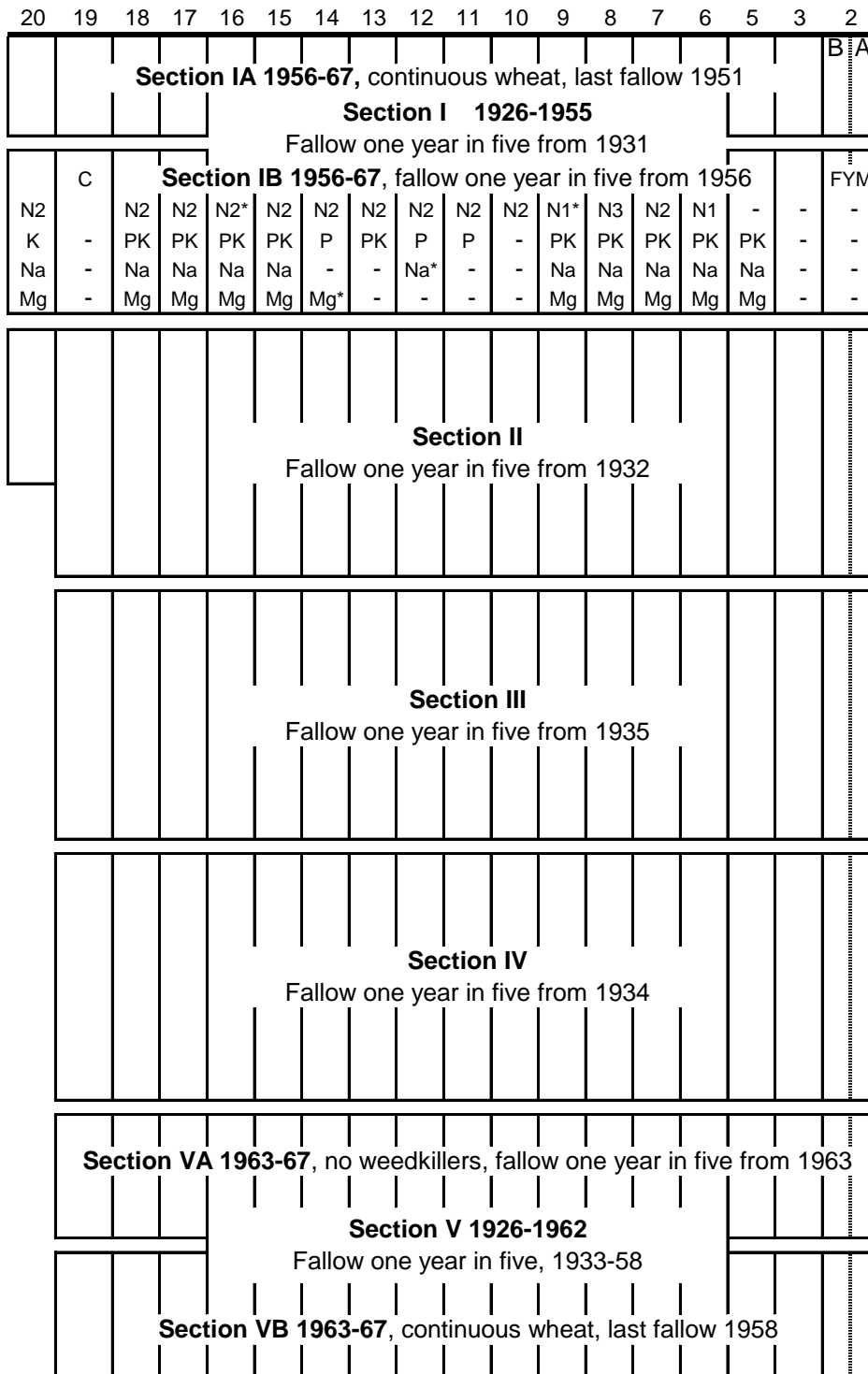
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# BROADBALK PLAN 1926-1967



Strip (Plot)



## 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 ammonium 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