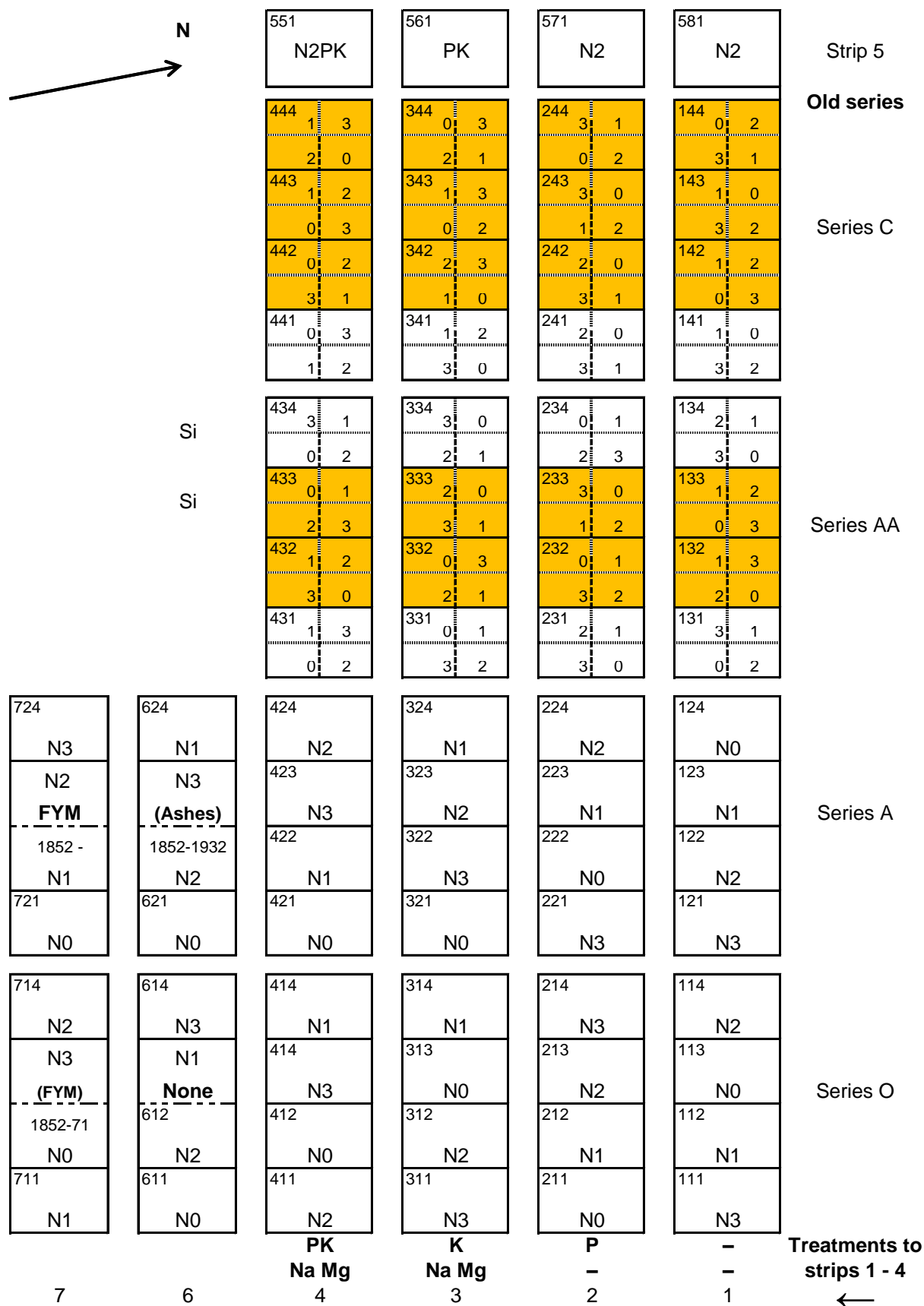


# Hoosfield spring barley 1968 - 1978



Rates of N shown (N0, N1, N2 & N3) are those applied to barley 1968 - 1973. N rates changed in 1974 and 1977, since 1981 they have rotated each year in the order N3 > N2 > N1 > N0

Derived from plan in 'Rothamsted Experimental Station, Details of the Classical and Long-Term Experiments 1968-1973', Lawes Agricultural Trust, 1977, p10

## Hoosfield Treatments 1968-1978 (see other plans for other years)

Fertilizer treatments (per hectare per year unless indicated)

Nitrogen (applied in the spring), all applied as calcium ammonium nitrate (Nitro-chalk)

Barley received N0, N1, N2, N3 (0, 48, 96, 144kg N)

Beans received no nitrogen

Potatoes received a basal dressing of 144kgN 1968-1972, and 0, 96, 192 and 288kg 1973-1978

Organics (applied before ploughing, usually in the autumn)

FYM 1852 -	35t Farmyard manure since 1852
(FYM) 1852-71	35t Farmyard manure, 1852-1871 only

Minerals (applied before ploughing in the autumn)

P	34kg P as superphosphate
K	90kg K as potassium sulphate
Na	16kg Na as sodium sulphate
Mg	11kg Mg as magnesium sulphate
Si	448kg sodium silicate

(Ashes) Ashes were added to minerals to aid spreading, 1852-1932 only

Series treatments (last applied 1966, 1967 for parts of Series C)

O	No N fertilizer
A	48kg N as ammonium sulphate
AA	48kg N as sodium nitrate
C	48kg N as castor bean meal since 1941; rape cake 1852-1940

### Lime:

Lime has been applied as required since the 1950s to maintain soil pH at a level that does not compromise yield. No lime was applied 1968-1973.

### Notes:

In 1968 plots 721 and 723 received no N and 722 and 724 N1; thereafter shown as on the plan

In 1968 plots 611-614, 621-624, 711-714 and 721-724 received N at 63 (N1), 129 (N2) and 192 (N3) in error.

1970-72 plots 551 and 561 received 18kgP and 168kg K in error

Na as sodium sulphate discontinued in 1974 (applied with K and Mg);

**Cropping:** Rotation 1968-1978

Series C: Plots 142-144, 242-244, 342-344 and 442-444 in a rotation of barley, beans and potatoes, each crop grown every year  
Plots 141, 241, 341 and 441 in continuous barley

Series AA: Plots 132, 133, 232, 233, 323, 333, 432 and 433 in a rotation of barley, beans and potatoes, one crop grown each year:  
Potatoes: 1968, 1971, 1974, 1977  
Beans: 1969, 1972, 1975, 1978  
Barley: 1970, 1973, 1976  
Plots 131, 134, 231, 234, 331, 334, 431 and 434 in continuous barley

Spring barley was grown every year on the rest of the experiment

**Reference:** 'Rothamsted Experimental Station, Details of the Classical and Long-Term Experiments 1968-1973', Lawes Agricultural Trust, 1977, p10