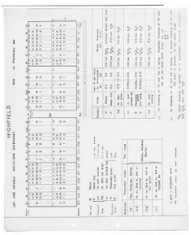
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Collection of Plans for the Highfield Ley-arable Experiment



Full Table of Content

Highfield Ley-arable 1949-59

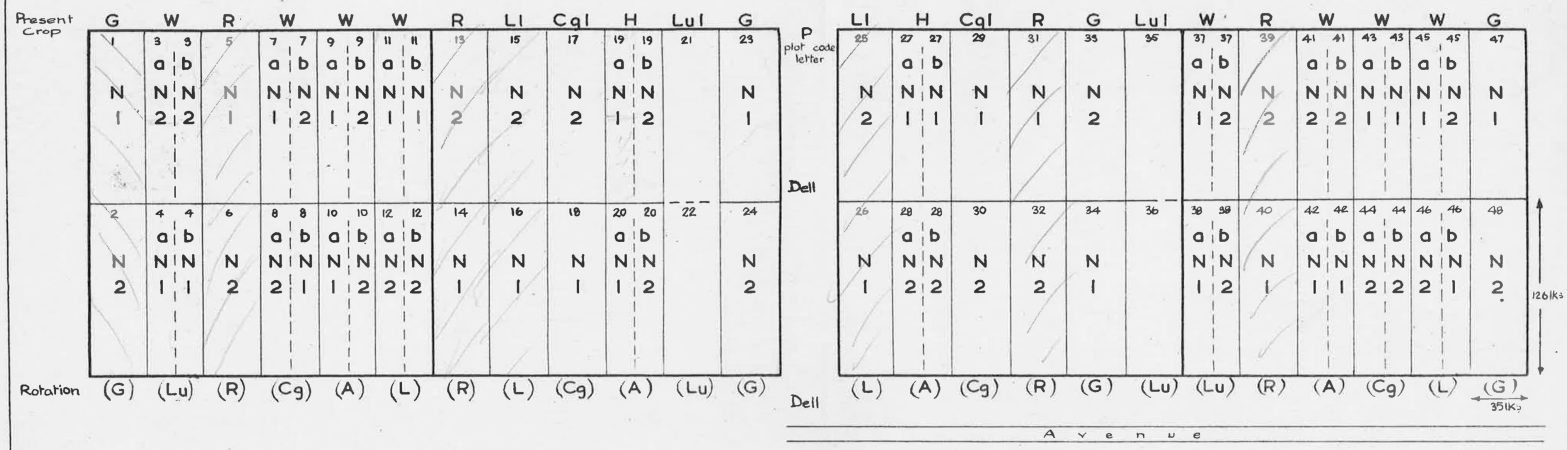
Rothamsted Research

Rothamsted Research (1949-1990) *Highfield Ley-arable 1949-59 ;* Collection Of Plans For The Highfield Ley-Arable Experiment, pp 1 - 11

HIGHFIELD

LEY AND ARABLE ROTATIONS EXPERIMENT

1949 1st Preliminary year



Test crop W Wheat

Treatment Crops
- H Seeds hay — 1 cut then fallowed
- Lul 1st year lucerne — 1 or more cuts
- Cgl 1st year cut grass — 3 or 4 cuts
- Ll 1st year grazed ley — grazed with sheep

Permanent Grass
- R Reseeded grass
- G Old grass

Rotations	Treatment crops	Test crops
(A)	Hay, Potatoes, Barley	Wheat, Potatoes Barley
(Lu)	1st yr, 2nd yr, 3rd yr lucerne	
(Cg)	1st yr, 2nd yr, 3rd yr cut grass	
(L)	1st yr, 2nd yr, 3rd yr grazed ley	

¼ plot = 0.02205 acre

For harvested areas see field notebooks

Symbol	Crop	cwt. N per acre as nitrochalk N1	N2	Basal dressing per acre
W	Wheat	0.3	0.6	0.2 cwt. P_2O_5 combine drilled with seed
H	Seeds hay	0.3	0.6	0.15 cwt. P_2O_5, 0.15 cwt. K_2O
Cgl	1st year cut grass	0.15 (i)	0.3	0.6 cwt. P_2O_5, 0.6 cwt. K_2O
Ll	1st year grazed ley	0.075 (ii)	0.15	0.6 cwt. P_2O_5, 0.6 cwt. K_2O
R	Reseeded grass	0.075 (ii)	0.15	0.3 cwt. P_2O_5, 0.3 cwt. K_2O
G	Old grass	0.075 (ii)	0.15	0.3 cwt. P_2O_5, 0.3 cwt. K_2O
Lul	1st year lucerne	—	—	0.6 cwt. P_2O_5, 0.6 cwt. K_2O

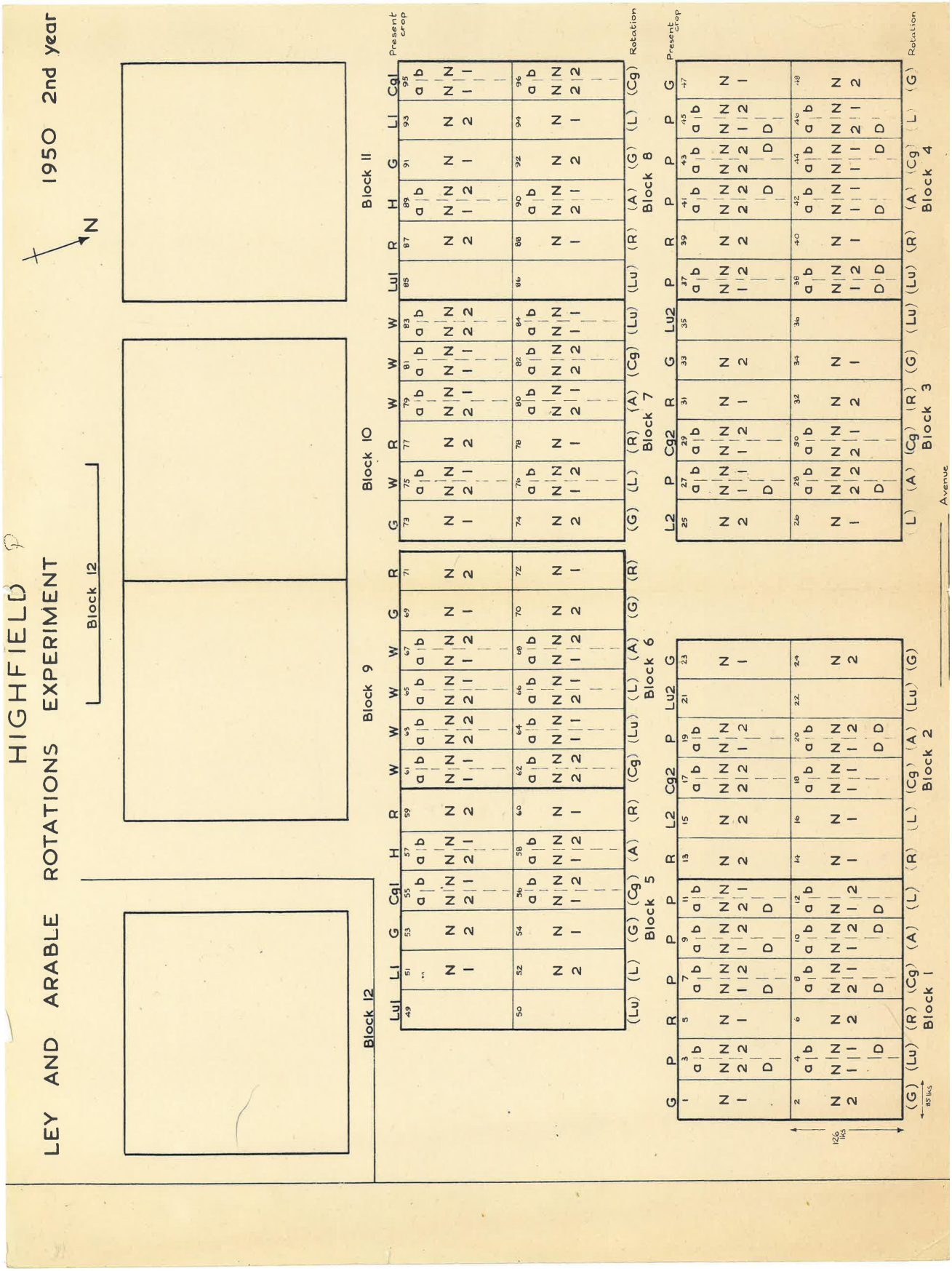
(i) 1st dressing of N1 and N2 in spring. Repeated dressings of N1 and N2 at the same rates. After 1st cut
" 2nd "
" 3rd "

(ii) 1st dressing of N1 and N2 in spring. A second dressing of N1 and N2 later in summer at the same rates.

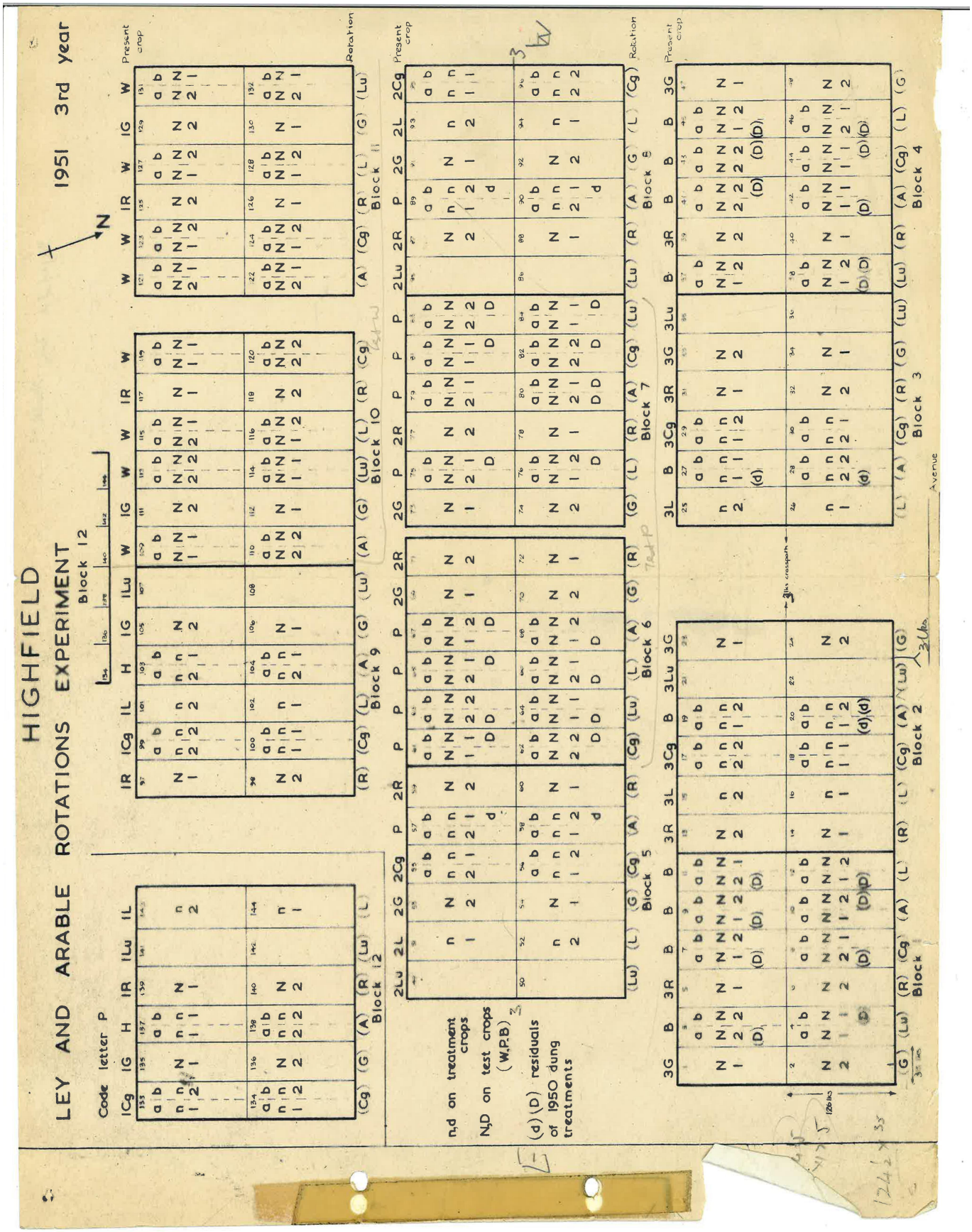
The basal dressing is applied as a granulated compound containing 13% P_2O_5 and 13% K_2O

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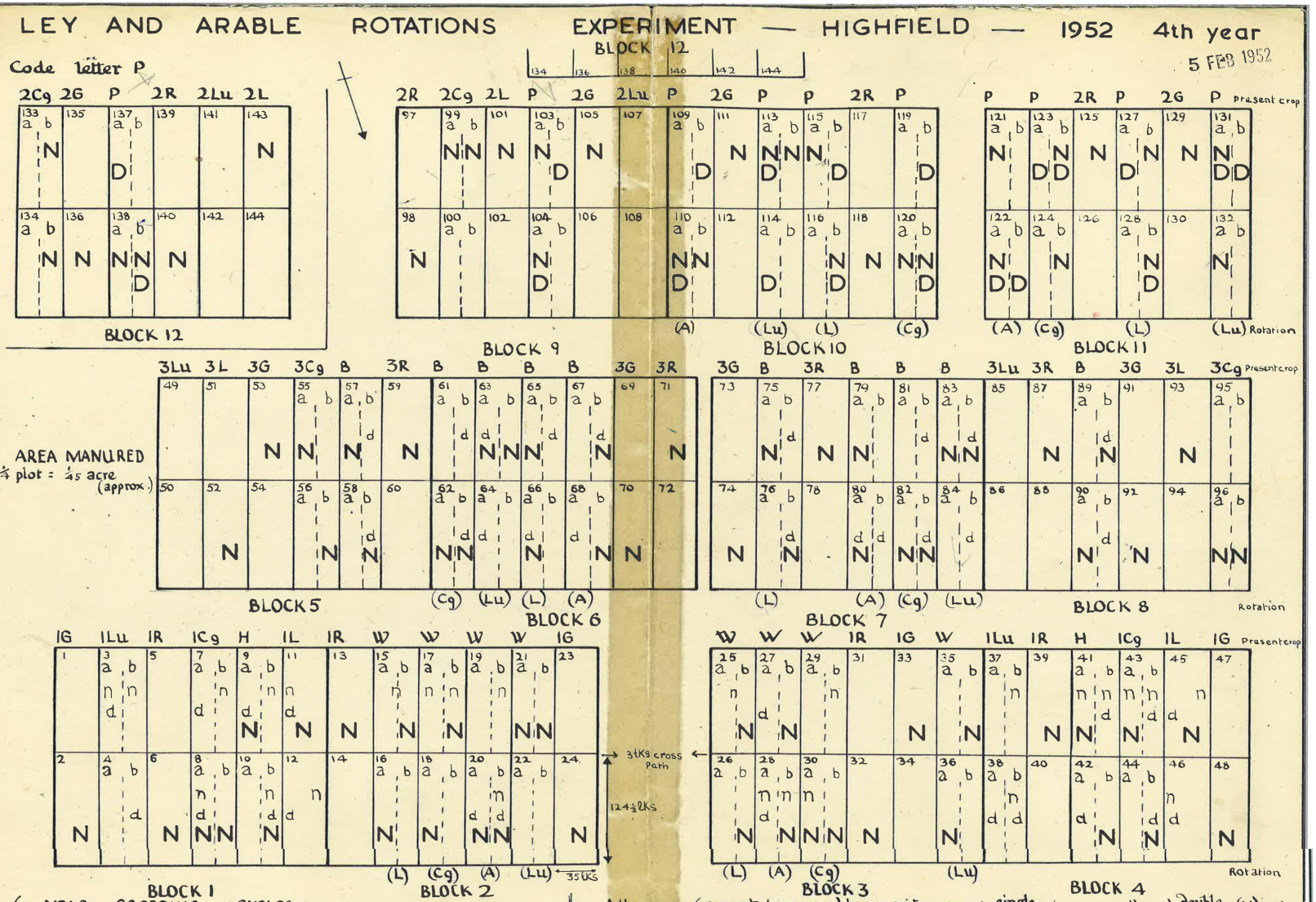


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LEY AND ARABLE ROTATIONS EXPERIMENT — HIGHFIELD — 1952 4th year

5 FEB 1952



6 YEAR CROPPING CYCLES :-

Treatment Crops		Test Crops
Lu = 3 years Lucerne	}	Wheat, Potatoes, Barley
L = 3 years Grazed Ley		
Cg = 3 years Cut Grass		
A = Hay, Potatoes, Barley		
G = Permanent Old Grass, 2 years grazed, 3rd year hay		
R = Reseeded Permanent Grass " " " " "		

All crops (except Lucerne) have nitrogen at single (no symbol) & at double (N) rates

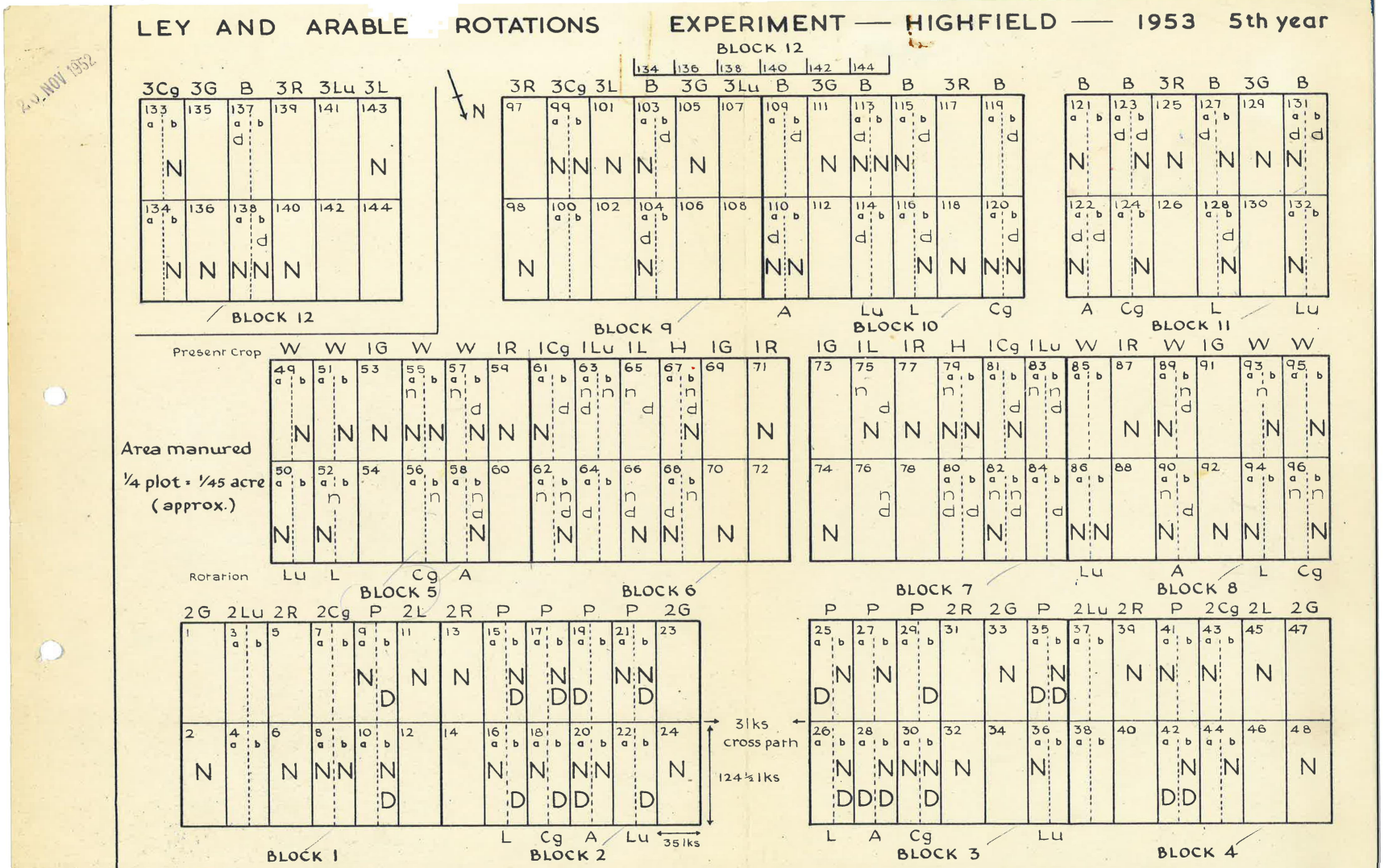
N = { Cg :- 2 cwt N/C in spring, 2 cwt. N/c after each cut
L :- 1 cwt N/c " " , 1 cwt. N/c later in season
Wheat (W) 4 cwt N/c, Barley (B) 2·7 cwt. N/c, Hay (H) 4 cwt N/c
Potatoes (P) 5 cwt. sulphate of ammonia }

D = Dung at 12 tons per acre to potato crops only
n = N given in previous 3 year crop sequence
d = D to previous potato crop.

Basal PK. All rotations and permanent grass :- 13 cwt/a Superphosphate 4 cwt/a muriate of potash spread over 6 years. (Equivalent to Calcium carbonate applied once in 6 years before test crop barley. 2·4 cwt P_2O_5 & 2·4 cwt K_2O.)

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LEY AND ARABLE ROTATIONS EXPERIMENT — HIGHFIELD — 1953 5th year



6 Year cropping cycles:-

Treatment crops

Lu = 3 years Lucerne
L = 3 years Grazed Ley
Cg = 3 years Cut Grass
A = Hay, Potatoes, Barley

Test Crops: Wheat, Potatoes, Barley.

G = Permanent old grass, 2 years grazed, 3rd year hay.
R = Reseeded Permanent Grass grazed, 3rd year hay.

All crops (except Lucerne) have nitrogen at Single and Double rates.

N = double rate of nitrogen
- Cg :- 2 cwt. N/c in spring, 2 cwt. N/c after each cut.
- L :- 1 cwt. N/c in spring, 1 cwt. N/c later in season.
- Wheat (W) 4 cwt. N/c, Barley (B) 2·7 cwt. N/c.
- Hay (H) 4 cwt. N/c, Potatoes (P) 5 cwt. Sulphate of ammo

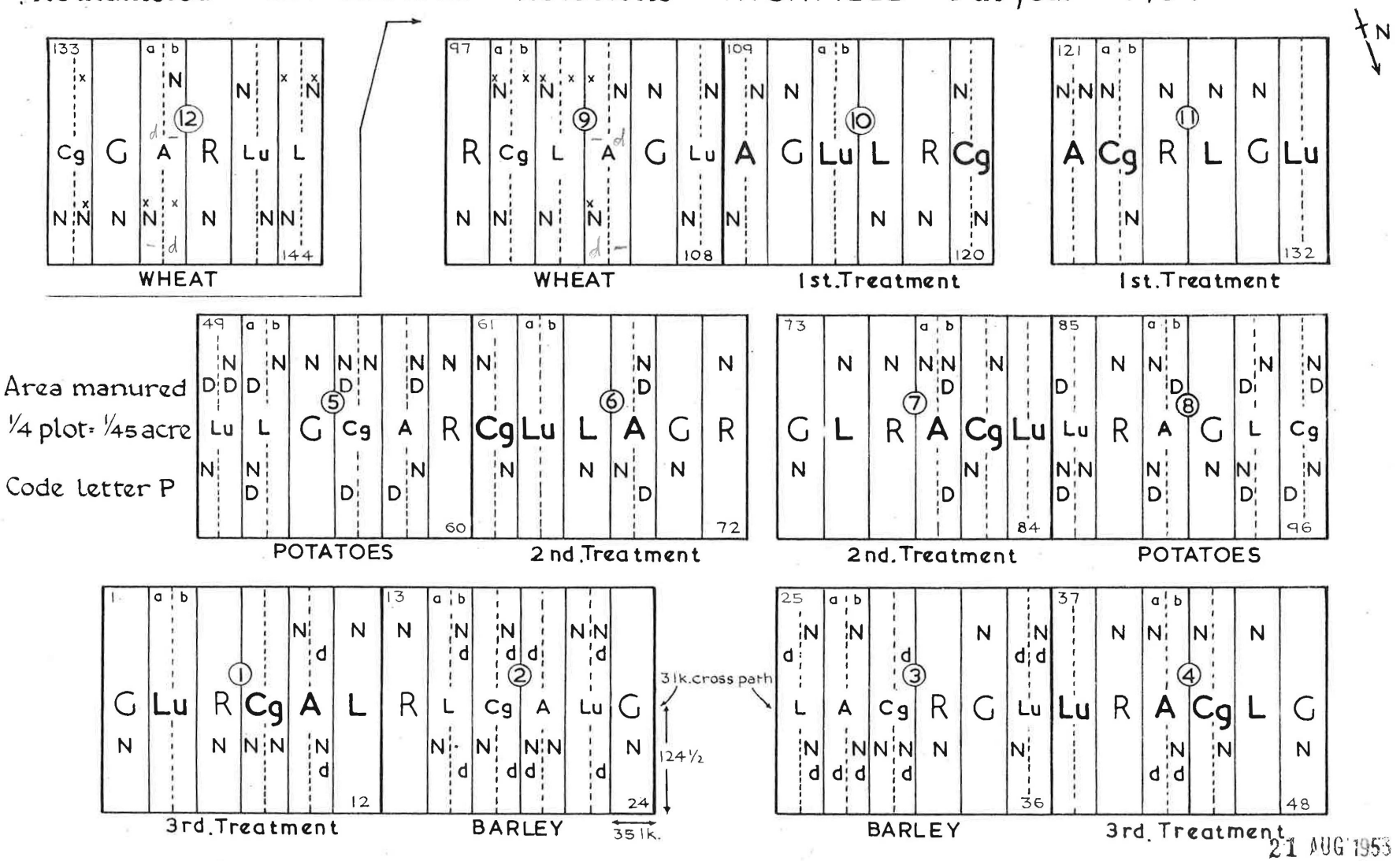
D = Dung at 12 tons per acre to potato crops only.

dn = High nitrogen given in previous 3 year crop sequence. Dung to previous potato crop.

Basal P.K. All rotations and permanent grass :- 13 c.p.a. Super. 4 c.p.a. Mur/potash spread over 6 years. Calcium carbonate applied once in 6 years before test crop barley.

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Rothamsted LEY-ARABLE Rotations HIGHFIELD 6th year 1954

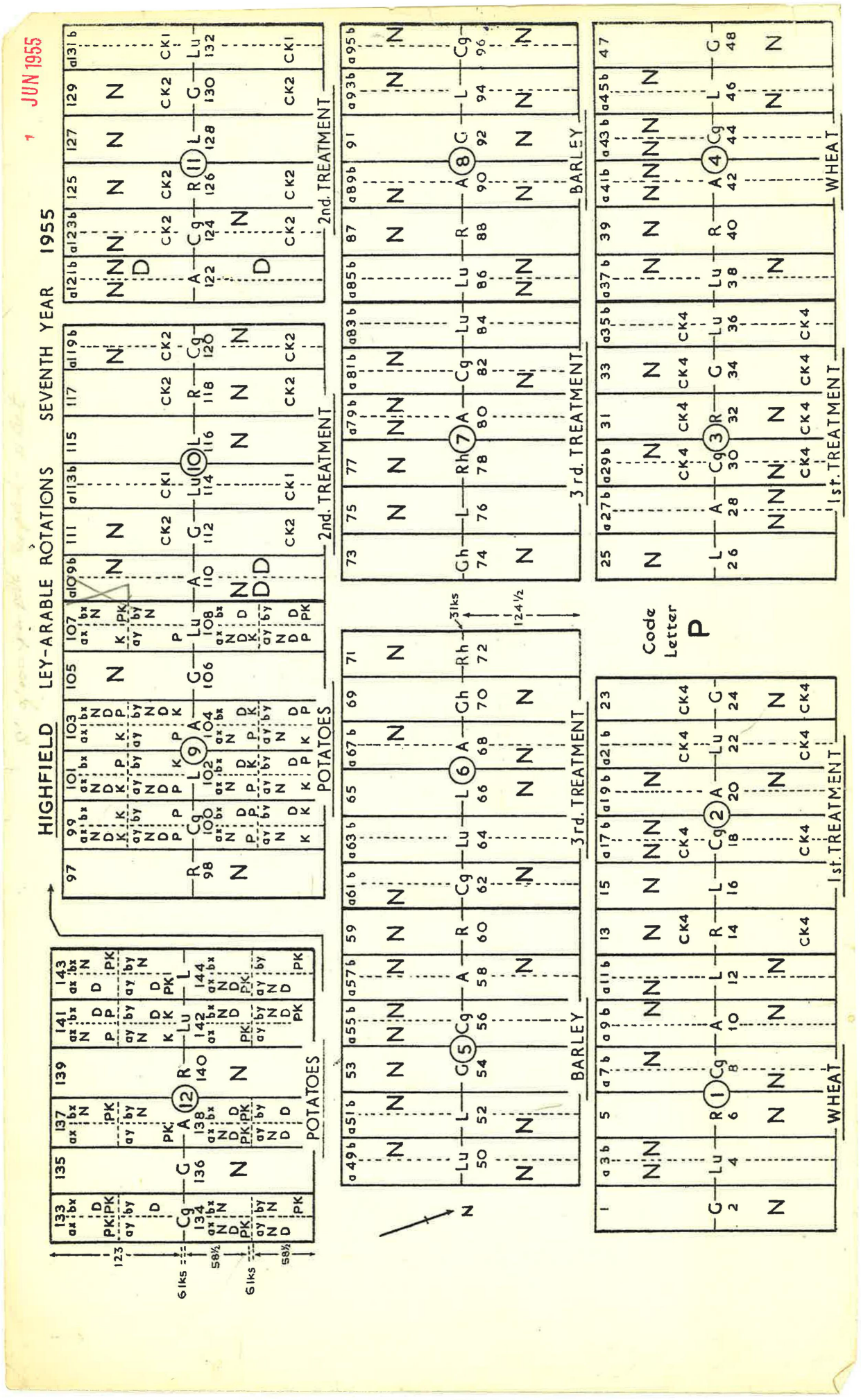


21 AUG 1953

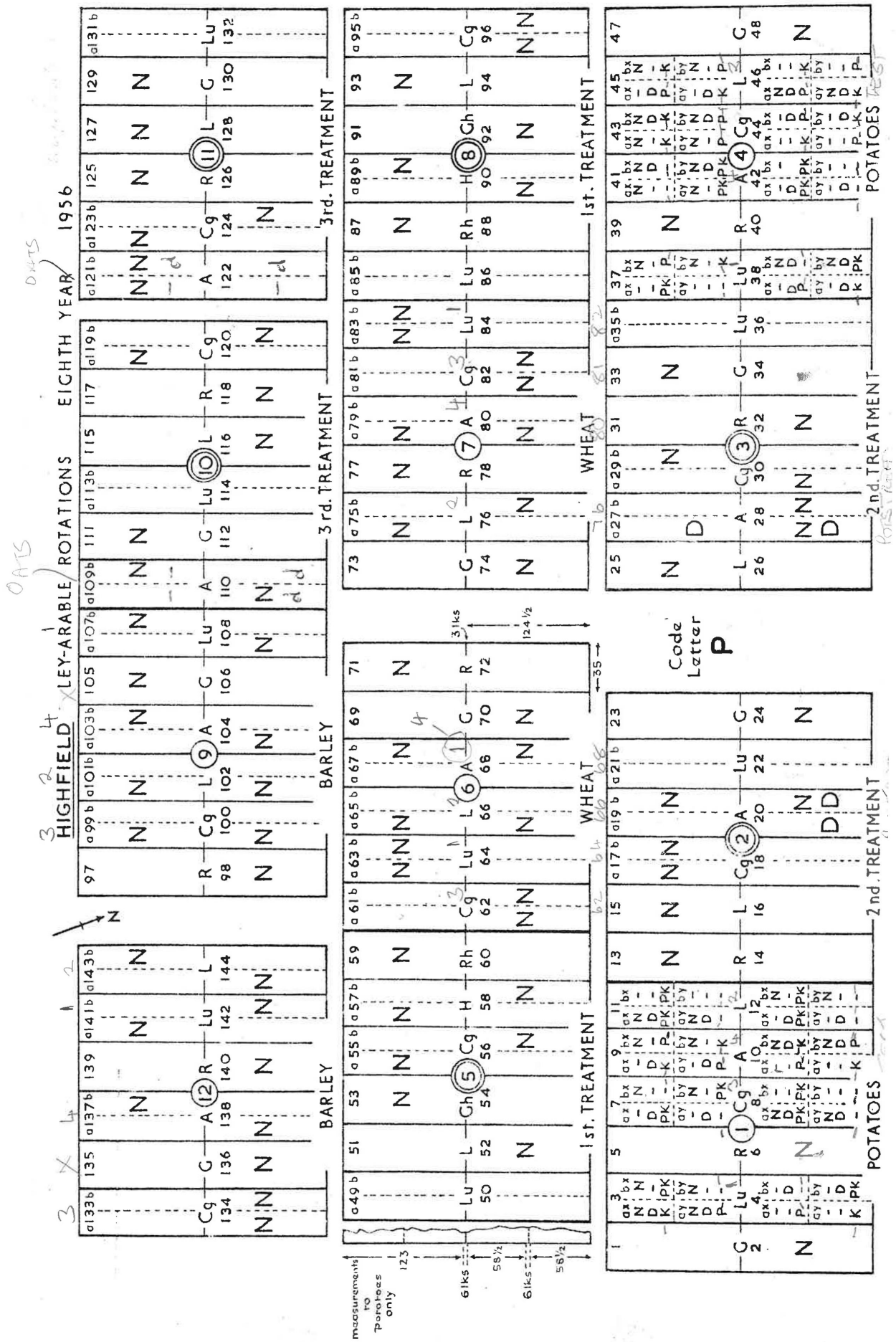
Treatments overleaf

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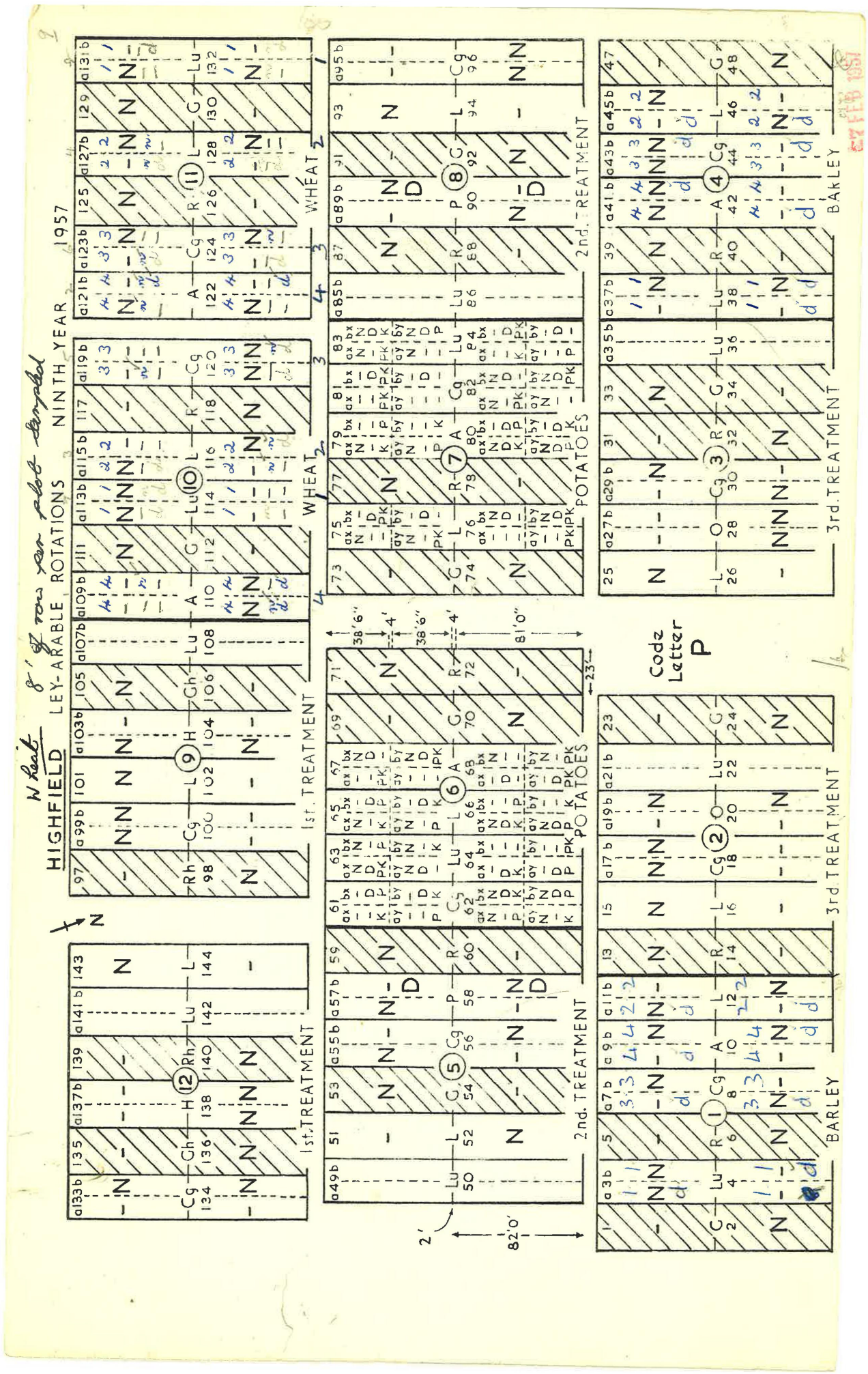
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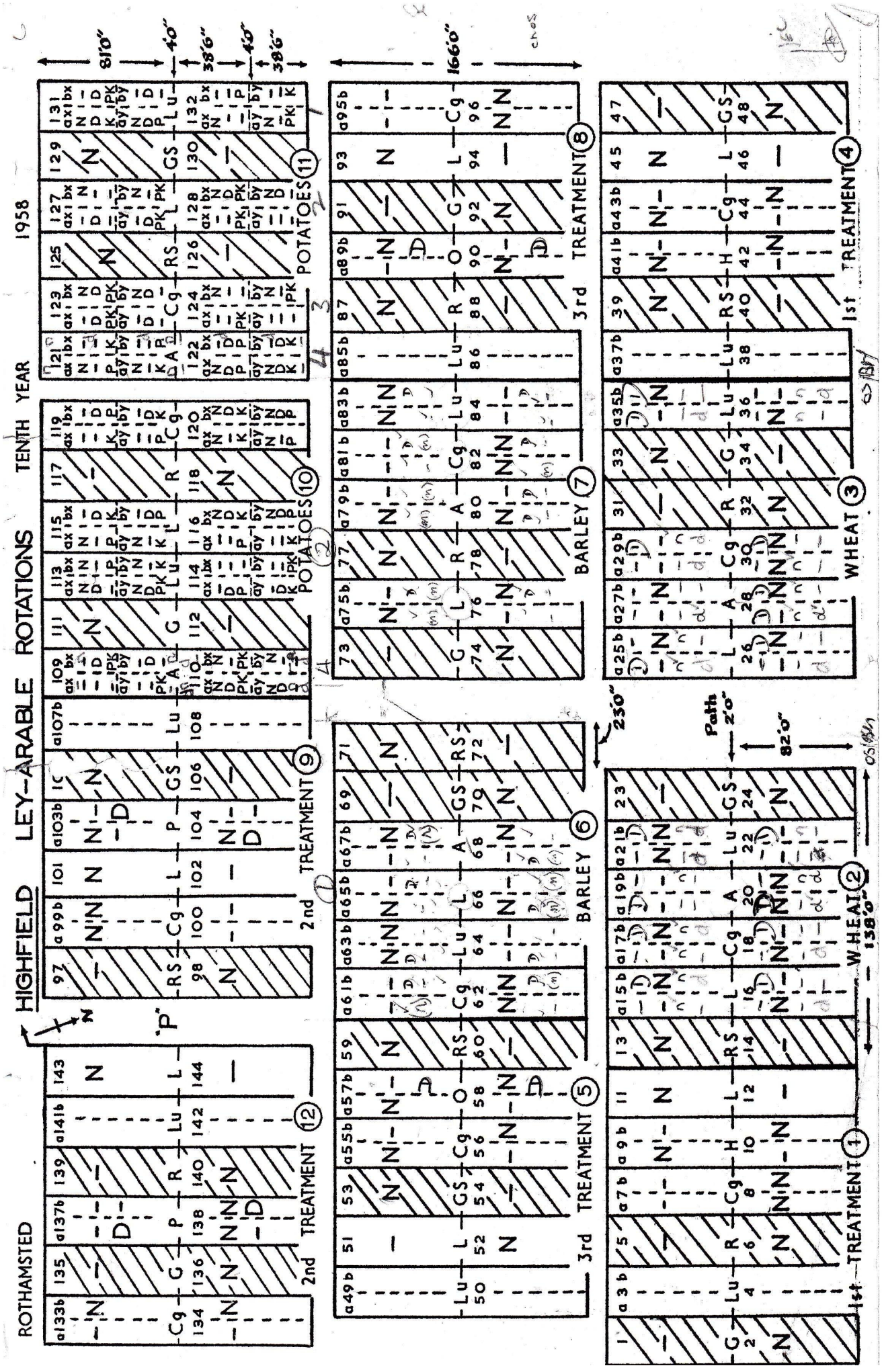
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