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Yields of the Field Experiments 1978



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78/R/AG/6

4GDELL

Object: To study, by crop yields and soil analyses, the residual values of phosphate and potash applied in the period 1848-1951 and further dressings since 1964.

The ninth year of revised scheme, ryegrass and ryegrass/clover.

For previous years see 'Details' 1967 and 1973, and 74-77/R/AG/6.

Treatments: All combinations of:-

Whole plots

1. OLDRESD Fertilisers and organic manures applied to roots every

fourth year, in the period 1848-1948:

NONE None
PKNAMG PKNAMG NPKNAMGC NPKNAMGC

N: 48 kg N as sulphate of ammonia
P: 41 kg P as superphosphate
K: 224 kg K as sulphate of potash
Na: 16 kg Na as sulphate of soda
Mg: 11 kg Mg as sulphate of magnesia

C: Castor meal at 2240 kg supplying about 112 kg N

NOTE: Yields taken only from OLDRESD NONE.

2. RN CROP (77) Rotation 1848-1951 and crop since 1977:

(F) G/C With fallow: Roots (turnips or swedes), barley, fallow, wheat 1848-1951. Grass/clover 1977 & 1978

(L) G With legume: Roots, barley, legume (clover or beans), wheat

1848-1951. Grass 1977 & 1978

Half plots

3. 1964RESD Residues of 1964 treatments:

P K

Quarter plots

4. PREVCROP Previous cropping 1958-69 on P-test half plots, 1958-70

on K-test half plots:

ARABLE Arable or fallow GRASS Grass

ul ass

78/R/AG/6

Sixteenth plots

5. P205 64 K20 64 Rates of 1964 treatments (kg):

P205 to P-test K20 to K-test half plots half plots

0 0 500 315 1000 630 2000 1260

Sixty fourth plots

6. On P-test half plots:

P205 70(2) Residues of P205 applied 1970-72 (total, kg):

0 375

On K-test half plots:

K20 73(6) Residues of K20 applied 1973-76 (total, kg):

0 870

NOTE: Strips of sixty fourth plots on P-test half plots tested 63 and 94 kg N in 1976. Yields in 1978 were taken only from strips given 94 kg N. Strips of sixty fourth plots on K-test half plots were cropped with potatoes and barley in 1976. Yields in 1978 were taken only from strips cropped with potatoes.

Sub plot dimensions: Plots 1, 2, 3 and $4 - 6.04 \times 3.02$. Plots 5, $6 - 5.43 \times 3.02$.

Standard applications: Grass only plots: Manures: N at 100 kg as 'Nitro-Chalk 25' in spring, as 'Nitra-Shell 34' after each cut except the last. Grass and clover plots: Manures: N at 50 kg as 'Nitra-Shell 34'.

Seed: Grass plots: S.23, sown at 22 kg. Grass/clover plots: S.23 at 22 kg, Blanca at 2 kg, mixture sown at 24 kg.

Cultivations, etc.:- First N applied to grass: 6 Mar, 1978. N applied to grassclover: 18 May. Cut three times: 6 June, 26 July, 1 Nov. N applied to grass: 9 June, 3 Aug.