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Numerical Results of the Field Experiments 1969

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69/R&W/W/2 - Deep-drilled Fertiliser -

Rothamsted Research

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WINTER WHEAT

(69/R/W/2 and 69/W/W/2)

Deep-drilled fertiliser - Rothamsted (R) Great Knott I and Woburn (W) Lansome III and Roadpiece 1969.

Design: 4 randomised blocks of 10 plots.

Area of each plot: 0.0064. Area harvested: 0.0046.

Treatments: All combinations of:-

1. Methods of application of PK fertiliser: Injected 3-4 in. deep by 'Tume' drill in rows 5.5 in. apart with 'crumblers' on (I), broadcast on seedbed by hand (B).
2. Rates of PK fertiliser (0:20:20): 230 lb* (1), 450 lb (2).
3. Row spacing: 4 (C), 8 (W) inches.

In addition two extra plots with fertiliser combine drilled at rate 1 (D1W) or rate 2 (D2W), row spacing 7 inches.

* 220 lb on Lansome III (W) and Roadpiece (W).

Basal applications: 450 lb 'Nitro-Chalk' broadcast in spring.

Magnesian limestone at 40 cwt Lansome III (W), 50 cwt - Roadpiece (W). Weedkiller: Great Knott I (R): Mecoprop at 42 oz and 2,4-D at 10.5 oz in 20 gals. Lansome III (W) and Roadpiece (W): Weedkiller: Ioxynil at 9 oz and mecoprop at 27 oz in 25 gals.

Cultivations, etc.:

Great Knott I (R): Rotary cultivated: 15 Aug, 1968. PK applied, seed drilled at 170 lb: 18-21 Oct. 'Nitro-Chalk' applied: 18 Apr, 1969. Weedkiller applied: 12 May. Combine harvested: 30 Aug. Variety: Joss Cambier. Previous crops: Spring wheat 1967, fallow 1968.

Lansome III (W): Limestone applied: 25 Oct, 1968. Deep-tine cultivated: 26 Oct. PK applied, seed drilled at 165 lb: 5 Nov. 'Nitro-Chalk' applied: 15 Apr, 1969. Weedkiller applied: 1 May. Combine harvested: 11 Aug. Variety: Joss Cambier. Previous crops: Fallow 1967, carrots 1968.

Roadpiece (W): Limestone applied: 25 Oct, 1968. Deep-tine cultivated: 7 Nov. PK applied, seed drilled at 165 lb: 15 Nov. 'Nitro-Chalk' applied: 15 Apr, 1969. Weedkiller applied: 1 May. Combine harvested: 11 Aug. Variety: Joss Cambier. Previous crops: Winter wheat 1967, spring beans 1968.

Standard errors per plot. Grain, cwt:

Great Knott I (R): 1.92 or 3.4% (21 d.f.)
Lansome III (W): 1.87 or 4.4% (20 d.f.)
Roadpiece (W): 1.85 or 6.4% (19 d.f.)

SUMMARY OF RESULTS

GREAT KNOTT I (R)

GRAIN:CWT

	1	2	C	W	Mean
	(±0.68)		(±0.68)		(±0.48)
I	57.5	56.9	57.6	56.8	57.2
B	57.9	56.5	58.0	56.4	57.2
			(±0.68)		(±0.48)
		1	58.7	56.7	57.7
		2	56.9	56.5	56.7
Mean (±0.48)			57.8	56.6	57.2

D1 W: 56.9 (±0.96)

D2 W: 55.8

General mean: 57.0

Mean D.M.%: 81.7

LANSOME III (W)

GRAIN:CWT

	1	2	C	W	Mean
	(±0.66)		(±0.66)		(±0.47)
I	42.4	40.9	42.1	41.2	41.7
B	42.0	42.9	42.8	42.1	42.4
			(±0.66)		(±0.47)
		1	42.8	41.5	42.2
		2	42.1	41.7	41.9
Mean (±0.47)			42.5	41.6	42.0

D1 W: 41.9 (±0.94)
 D2 W: 42.6

General Mean: 42.1

Mean D.M.%: 85.2

ROADPIECE (W)

GRAIN:CWT

	1	2	C	W	Mean
	(±0.66)		(±0.66)		(±0.46)
I	29.1	28.5	29.8	27.9	28.8
B	28.7	29.8	30.7	27.8	29.2
			(±0.66)		(±0.46)
		1	29.8	28.0	28.9
		2	30.6	27.7	29.1
Mean (±0.46)			30.2	27.8	29.0

D1 W: 29.9 (±0.92)

D2 W: 30.9

General mean: 29.4

Mean D.M.%: 86.4