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64/W/WAU/C/17 *Trefoil* and *Ryegrass* Green Manures - Barley

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64/C/17.1

BARLEY AFTER GREEN MANURES

(WAU)

Effects of trefoil and ryegrass green manures, time of ploughing and N - Woburn Road Piece 1964 - barley following early potatoes.

Design: Single replicate of 4 x 2 x 4 in two blocks of 16 plots each, randomisation restricted.

Area of each plot: 0.0212. Area harvested: 0.0141.

Treatments. All combinations of:-

1. Green manures: None (O), trefoil (T), ryegrass (R), ryegrass sown with 0.6 cwt N as 'Nitro-Chalk' (RN).
2. Time of ploughing: Nov 26, 1963 (A), Jan 30, 1964 (S).
3. Nitrogen: None (NO), 0.3 (N1), 0.6 (N2), 0.9 (N3) cwt N as 'Nitro-Chalk'.

Basal dressing. Early potatoes: 8 cwt 17:11:22. Green manures: None. Barley: 2.5 cwt 0:20:20 combine drilled.

Cultivations, etc.: Ploughed: Sept 17 - Oct 17, 1962. Basal dressing applied for early potatoes: Apr 11, 1963. Potatoes planted: Apr 19. Earthed up: June 15. Haulm destroyed mechanically: July 23. Lifted: July 24 - Aug 2. Ground chalk applied to plots 1 - 16 at 60 cwt and to plots 17 - 32 at 20 cwt, 'Nitro-Chalk' applied to RN plots: Aug 2. Trefoil sown at 30 lb and ryegrass at 40 lb: Aug 3. A plots ploughed: Nov 26. S plots ploughed: Jan 30, 1964. 'Nitro-Chalk' treatments applied: Feb 25. Seed drilled at 2.75 bushels: Feb 28. Sprayed with mecoprop/2,4-D (Methoxone Extra at 6 pints in 40 gals): May 6. Combine harvested: Aug 21. Varieties: Trefoil - English, ryegrass - English Leafy Italian, early potatoes - Arran Pilot, barley - Maris Badger. Previous crops: Spring wheat 1961, barley 1962.

NOTE: (1) The green manures were sampled just before ploughing for estimates of dry matter and N per acre in roots plus tops.

(2) Yields were adjusted for a linear trend across the blocks and only the adjusted yields are presented.

Standard error per plot.

Barley. Grain 3.64 or 11.5% (7 d.f.)

64/C/17.2

SUMMARY OF RESULTS

GRAIN

	NO	N1	N2	N3	Mean
		(±1.29)			
Mean	22.4	29.3	35.3	39.8	31.7
		(±2.58)			(±1.29)
O	16.7	20.0	30.2	35.7	25.7
T	27.0	34.8	40.9	44.2	36.7
R	19.8	26.6	30.4	35.3	28.0
RN	26.0	36.0	39.7	43.9	36.4
		(±1.82)			(±0.91)
A	22.3	30.5	34.7	42.5	32.5
S	22.4	28.2	35.9	37.1	30.9
	O	T	R	RN	
		(±1.82)			
A	27.7	38.0	28.0	36.3	
S	23.6	35.4	28.0	36.5	

Mean D.M. %: 84.2