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# Yields of the Field Experiments 1959

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## 59/R/BC/1 Reference Plots

### Rothamsted Research

Rothamsted Research (1960) *59/R/BC/1 Reference Plots* ; Yields Of The Field Experiments 1959, pp 45 - 46 - DOI: <https://doi.org/10.23637/ERADOC-1-179>

Summary of Results

Treatment	Wheat Grain Straw (at 85% D.M.)		Barley Grain Straw (at 85% D.M.)		Ley 1st cut 2nd cut 3rd cut (dry matter)			Total		tons per acre Potatoes Total tubers weight*		cwt per acre Permanent grass 1st cut 2nd cut (dry matter)		Total
	Grain	Straw	Grain	Straw	1st cut	2nd cut	3rd cut	1st cut	2nd cut	1st cut	2nd cut	1st cut	2nd cut	
None	44.9	48.4	21.3	16.8	9.0	31.1	11.7	51.8	51.8	3.46	6.49	30.3	11.2	41.5
N <sub>1</sub>	52.1	57.5	18.4	14.4	9.9	38.9	10.9	59.7	59.7	4.38	11.14	28.6	11.4	40.0
P	49.8	55.5	30.8	28.4	9.4	33.1	11.9	54.4	54.4	6.43	6.75	29.2	12.3	41.5
N <sub>1</sub> P	53.2	66.1	29.2	24.9	9.4	41.5	13.1	64.0	64.0	4.14	15.17	36.9	13.3	50.2
K	46.8	57.4	27.9	23.3	11.4	42.6	25.5	79.5	79.5	7.28	4.71	27.5	11.1	38.6
N <sub>1</sub> K	47.4	57.5	31.1	25.2	10.8	46.1	20.4	77.3	77.3	7.84	11.87	56.8	17.7	74.5
PK	52.5	76.1	29.3	26.2	14.4	47.3	27.3	89.0	89.0	8.72	7.86	47.4	14.1	61.5
N <sub>1</sub> PK	59.6	80.7	34.0	29.3	15.0	65.1	18.8	98.9	98.9	12.14	11.80	50.8	16.6	67.4
N <sub>2</sub> PK	47.2	89.9	36.6	31.9	14.7	62.8	13.9	91.4	91.4	14.80	18.73	54.7	21.7	76.4
D	51.3	65.3	30.5	26.8	15.6	53.0	23.0	91.6	91.6	16.06	10.42	55.9	11.6	67.5
N <sub>1</sub> PKD	60.1	82.6	35.1	29.9	16.3	65.0	23.8	105.1	105.1	20.11	16.10	54.7	23.1	77.8
N <sub>2</sub> PKD	52.7	77.6	41.5	42.0	16.2	66.7	19.9	102.8	102.8	19.46	24.09	71.4	29.0	100.4
Mean dry matter % as harvested:	68.6	54.6	69.8	51.8	16.1	28.0	30.0	24.7	24.7	25.5	40.4	25.5	40.4	33.0

59/Bd/1.1

GREEN MANURING EXPERIMENT

Woburn Stackyard - 1959, the 6th year of the revised scheme.

For history, treatments etc., see "Details of the Classical and Long Term Experiments" 1956. In 1959 the barley was combine harvested for the first time, yields being estimated from one combine cut per plot. Weights of straw were not recorded.

Area of each plot (acres): 0.0406. Area harvested: Potatoes - 0.0221; barley - 0.0301.

Cultivations, etc.:

Green manures after barley 1958 (for early potatoes 1959): Trefoil at 30 lb per acre, ryegrass at 40 lb per acre, undersown: Apr 29, 1958. Varieties: Trefoil - English; Ryegrass - Western Wolths.

Early potatoes: Straw applied: Sept 25, 1958. "Fallow" plots ploughed: Sept 26 and Nov 26. All plots ploughed: Feb 6, 1959. Basal fertilizer and 'Nitro-Shell' applied, potatoes mechanically planted: Mar 25. Earthed up: June 12. Sprayed with dieldrin at 2 pints in 40 gallons per acre: June 26. Lifted: July 21. Variety: Ulster Chieftain.

Green manures after early potatoes 1958 (for barley 1959): Trefoil at 30 lb per acre, ryegrass at 40 lb per acre, sown: Aug 1, 1958. Varieties: Trefoil - English; Ryegrass - Western Wolths.

Barley: "Fallow" plots and "early" green manure plots ploughed: Oct 23, 1958. "Late" green manure plots ploughed: Feb 5, 1959. Ground chalk applied at 18 cwt per acre: Feb 9. 'Nitro-Shell' applied: Mar 12. Seed drilled at 3 bushels per acre: Mar 13. Trefoil and ryegrass undersown: Mar 12, failed and resown: Aug 7. Combine harvested: Aug 4. Variety: Herta.

Standard errors per plot:

Potatoes. Total tubers: 0.523 tons per acre or 12.5% (18 d.f.)  
Barley. Grain (at 85% D.M): 3.00 cwt per acre or 12.1% (20 d.f.)

Estimates of produce (roots and tops) of green manure crops: cwt per acre

	Green manures	Ploughed in	Dry matter	Nitrogen
<u>For early potatoes</u>	Trefoil		20.9	0.672
	Ryegrass		26.8	0.352
<u>For barley</u>	Trefoil	Early	20.1	0.629
	Ryegrass	Early	33.0	0.462
	Trefoil	Late	14.7	0.453
	Ryegrass	Late	44.1	0.595