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Yields of the Field Experiments 1965

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65/W/WMG/B/5 Market Garden Soil

Rothamsted Research

Rothamsted Research (1966) *65/W/WMG/B/5 Market Garden Soil ; Yields Of The Field Experiments 1965*, pp 83 - 93 - DOI: <https://doi.org/10.23637/ERADOC-1-159>

65/B/5.1

WOBBURN MARKET GARDEN EXPERIMENT

(WMB)

Organic manures, N, P and K - Iansome Field 1965, the fifth year with revised treatments.

For history, treatments, etc., see 'Details 1962' and Results 63/B/5 and 64/B/5.

Globe beet (Series B, 1965): Fertiliser and dung plots were used for a microplot experiment. Remaining plots were fallowed.

Treatments: All combinations of:-

1. Whole plots: Fertiliser plots: 1.5 cwt P2O5, 1.5 cwt K2O (P1K1), 3.0 cwt P2O5, 3.0 cwt K2O (P2K2), 3/4 dug in, 1/4 to seedbed.
Dung plots: No P or K (P0K0), (P1K1).
2. Half plots: Fertiliser plots: Peat: None (0), 250 cwt peat dry matter (P1) 3/4 dug in, 1/4 to seedbed.
Dung plots: Dung: None (D0), 10 (D1), 20 tons (D2), dug in.
3. Quarter plots: N: None (N0), 0.6 (N1), 1.2 (N2), 1.8 cwt N (N3) as 'Nitro-Chalk' 3/4 dug in, 1/4 to seedbed.
4. Eighth plots: Plant spacing: Singling to 3 inch (S3), 4 inch (S4).

Area of each sub-plot (Carrots): 0.0063. Area harvested: 0.0017.

Area of each microplot (Globe Beet): 0.0016. Area harvested: 0.0007.

Cultivations, etc.:-

Leeks 1964-65 Series B: The crop was harvested early, without weighing, in preparation for microplot experiment.

Carrots Series A: Dung applied, plots ploughed: Jan 19, 1965.

Fertilisers applied: Apr 6. Seed drilled at 2.5 lb: Apr 9.

Sprayed with menazon at 4 oz plus linuron at 10 oz in 40 gals:

June 3. Sprayed with menazon at 4 oz in 40 gals: June 21.

Lifted: 1st harvest: July 21, 2nd harvest: Aug 2.

Globe beet Series B microplots: Plots ploughed: Jan 14, 1965.

Peat for digging in applied and all plots rotary cultivated:

Mar 15. Fertilisers and dung applied, all plots dug by hand:

Apr 5. Fallow area rotavated: Apr 22. Seedbed peat applied

and lightly worked in: Apr 27. Seedbed fertilisers applied:

May 6. Seedbed worked with drags and levelled with rakes,

rubbed and graded seed drilled at 30 lb: May 10. Fallow area

rotary cultivated: May 12. Singled: June 1. Hoed: June 15.

Sprayed with a mixture of menazon, DDT, gamma BHC at 1.5 pints

in 40 gals: June 21. Hoed: June 29. Fallow weeded and

rotavated: July 30. Lifted: Aug 3.

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NOTE: Soil samples taken Aug 13. Crop samples taken for determination of dry matter and samples retained for chemical analysis.

Standard errors per plot.

Carrots: Saleable roots: 1st harvest: 0.739 or 12.6% (12 d.f.)

2nd harvest: 1.393 or 12.7% (12 d.f.)

Mean of 2 harvests: 0.968 or 11.5% (12 d.f.)

Tops from saleable roots: 1st harvest: 1.476 or 20.7% (12 d.f.)

2nd harvest: 1.696 or 16.5% (12 d.f.)

Mean of 2 harvests: 1.394 or 16.0% (12 d.f.)

Globe beet: Fertiliser plots:

Saleable bulbs Pooled 1/2 and 1/4 plots:

1.531 or 13.5% (12 d.f.)

1/8 plots: 0.822 or 7.2% (16 d.f.)

Total produce Pooled 1/2 and 1/4 plots:

2.379 or 10.8% (12 d.f.)

1/8 plots: 1.717 or 7.8% (16 d.f.)

65/B/5.3

CARROTS: SALEABLE ROOTS

Dung	Organic manure applied	Mean	Fertiliser None	N1P1K1
1ST HARVEST				
10	D1	(± 0.370) 5.94	(± 0.523) 4.91	6.98
20	D2	7.00	7.69	6.30
10	C1	6.78	6.59	6.98
20	C2	6.74	7.33	6.14
	D1+C1	(± 0.261) 6.36	(± 0.370) 5.75	6.98
	D2+C2	6.86	7.51	6.22
Mean		6.62	6.63 (± 0.261)	6.60
NPK				
111	6.14			
211	3.84			
112	4.10	(± 0.523)		
212	3.49			
Mean	4.39	(± 0.261)		

65/B/5.4

CARROTS: SALEABLE ROOTS

Dung	Organic manure applied	Mean	Fertiliser None	N1P1K1
2ND HARVEST				
10	D1	(± 0.696) 11.92	(± 0.985) 11.05	12.79
20	D2	12.55	13.60	11.50
10	C1	12.42	12.44	12.40
20	C2	12.03	12.79	11.27
	D1+C1	(± 0.492) 12.17	(± 0.696) 11.74	12.60
	D2+C2	12.29	13.20	11.38
Mean		12.23	12.47 (± 0.492)	11.99

NPK		
111	11.24	
211	6.49	
112	8.75	(± 0.985)
212	6.98	
Mean	8.36	(± 0.492)

65/B/5.5

CARROTS: SALEABLE ROOTS

Dung	Organic manure applied	Mean	None	Fertiliser N1P1K1
MEAN OF 2 HARVESTS				
10	D1	(± 0.484) 8.93	(± 0.684) 7.98	9.88
20	D2	9.77	10.64	8.90
10	C1	9.60	9.51	9.69
20	C2	9.38	10.06	8.71
		(± 0.342)	(± 0.484)	
	D1+C1	9.26	8.74	9.78
	D2+C2	9.58	10.35	8.80
Mean		9.42	9.55	9.30
			(± 0.342)	
NPK				
111	8.69			
211	5.17			
112	6.43	(± 0.684)		
212	5.23			
Mean	6.38	(± 0.342)		

65/B/5.6

CARROTS: TOPS FROM SALEABLE ROOTS

Dung	Organic manure applied	Mean	Fertiliser	
			None	N1P1K1
1ST HARVEST				
		(± 0.738)	(± 1.044)	
10	D1	6.98	4.78	9.17
20	D2	9.27	10.50	8.04
10	C1	7.61	6.30	8.92
20	C2	8.92	9.72	8.11
		(± 0.522)	(± 0.738)	
	D1+C1	7.30	5.54	9.04
	D2+C2	9.10	10.11	8.08
Mean		8.20	7.82	8.56
			(± 0.522)	
NPK				
111	6.69			
211	4.43			
112	4.62	(± 1.044)		
212	4.26			
Mean	5.00	(± 0.522)		

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CARROTS: TOPS FROM SALEABLE ROOTS

Dung	Organic manure applied	Mean	None	Fertiliser N1P1K1
2ND HARVEST				
10	D1	(± 0.848) 10.77	8.62	(± 1.199) 12.92
20	D2	12.97	13.63	12.31
10	C1	10.84	8.95	12.73
20	C2	12.98	14.05	11.92
	D1+C1	(± 0.600) 10.80	8.78	(± 0.848) 12.82
	D2+C2	12.98	13.84	12.12
Mean		11.89	11.31	(± 0.600) 12.47
NPK				
111	8.40			
211	5.91			
112	7.07	(± 1.199)		
212	6.75			
Mean	7.03	(± 0.600)		

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CARROTS: TONS FROM SALEABLE ROOTS

Dung	Organic manure applied	Mean	None	Fertiliser N1P1K1
MEAN OF 2 HARVESTS				
10	D1	(± 0.697) 8.88	(± 0.986) 6.70	11.05
20	D2	11.12	12.07	10.18
10	C1	9.22	7.62	10.82
20	C2	10.95	11.89	10.01
	D1+C1	(± 0.493) 9.05	(± 0.697) 7.16	10.94
	D2+C2	11.04	11.98	10.10
Mean		10.04	9.57 (± 0.493)	10.52
NPK				
111	7.54			
211	5.17			
112	5.85	(± 0.986)		
212	5.51			
Mean	6.02	(± 0.493)		

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GLOBE BEET

FERTILISER PLOTS

	NO	N1	N2	N3	Mean
SALEABLE BULBS					
Mean	5.80	11.76	13.70	14.15	11.35
		(±0.541)			
P1K1	4.36	10.86	12.82	13.53	10.39
P2K2	7.23	12.66	14.56	14.77	12.31
		(±0.766)*			
O	5.02	10.66	13.37	13.25	10.57
PT	6.56	12.86	14.02	15.05	12.12
		(±0.766)			(±0.383)
S3	5.98	12.30	13.96	14.20	11.61
S4	5.61	11.22	13.43	14.10	11.09
		(1) and (2)			(±0.145)

* For use in horizontal and interaction comparisons only.

(1) (±0.579) For use in vertical and diagonal comparisons

(2) (±0.291) For use in horizontal and interaction comparisons

65/B/5.10

GLOBE BEET

FERTILISER PLOTS

	NO	N1	N2	N3	Mean
TOTAL PRODUCE					
Mean	11.60	21.64	26.24	28.50	22.00
			(± 0.841)		
P1K1	8.87	19.85	23.84	26.52	19.77
P2K2	14.32	23.44	28.64	30.47	24.22
			(± 1.190)*		
O	10.32	20.06	25.58	27.32	20.82
PT	12.87	23.23	26.90	29.67	23.17
			(± 1.190)		(± 0.595)
S3	12.13	22.81	27.02	29.29	22.81
S4	11.06	20.48	25.46	27.70	21.18
			(1) and (2)		(± 0.304)

* For use in horizontal and interaction comparisons only.

(1) (± 0.944) For use in vertical and diagonal comparisons(2) (± 0.607) For use in horizontal and interaction comparisons

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GLOBE BEET

DUNG PLOTS

	NO	N1	N2	N3	Mean
SALEABLE BULBS					
Mean	12.33	14.55	15.78	16.70	14.84
POKO	12.15	13.86	15.29	16.69	14.50
FLKL	12.50	15.25	16.27	16.71	15.18
D0	10.80	14.20	14.95	16.34	14.07
D1	12.11	12.88	15.44	15.80	14.06
D2	15.60	16.93	17.79	18.31	17.16
S3	12.52	15.01	15.80	16.89	15.06
S4	12.13	14.10	15.76	16.51	14.63

TOTAL PRODUCE

Mean	23.40	29.32	33.17	35.79	30.42
POKO	22.60	27.16	31.86	34.56	29.05
FLKL	24.21	31.47	34.48	37.02	31.80
D0	20.48	28.12	31.80	34.39	28.70
D1	23.05	25.19	32.25	34.24	28.68
D2	29.62	35.84	36.84	40.15	35.61
S3	24.12	30.64	33.47	36.91	31.29
S4	22.69	27.99	32.87	34.67	29.56