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Yields of the Field Experiments 1949

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49/CE/2 Potatoes - Time of Planting

49/CE/2 Potatoes - Time of Planting, Rothamsted Research (1950) Yields Of The Field Experiments 1949, pp 84 - 86

49/Ce/2.1

POTATOES

The effects of four times of planting, of dung, sulphate of ammonia, superphosphate and muriate of potash.

RP - Sawyers III 1949

System of replication: 4 randomized blocks of 16 plots each, certain high order interactions being confounded with block differences.

Area of each plot: 0.0146 acre.

Treatments:

Time of planting: March 29th, April 20th, May 10th, May 30th.

Dung: None, 15 tons F.Y.M. per acre

Sulphate of ammonia: None, 0.6 cwt N per acre

Superphosphate: None, 0.6 cwt P_2O_5 per acre

Muriate of potash: None, 1.0 cwt K_2O per acre.

Cultivations: Whole experiment; Ploughed: Sept 14-15 and again Dec 20-22.

Dung applied: Mar 22-23. Ploughed across: Mar 23-24. Sprayed with 20% B.O.V. to kill off haulm: Sept 16. Lifted: Sept 26-27.

1st planting; Bouted, artificials applied, planted, and covered in: Mar 28-29. Rolled ridges: Apr 2. Re-ridged: May 9. Harrowed twice: May 19. Grubbed: June 2. Hoed and weeded: June 14-16. Grubbed and earthed up: June 28. Hoed: July 4.

2nd planting; Bouted and artificials applied: Apr 19. Planted and covered in: Apr 20. Rolled ridges: Apr 21. Harrowed twice: May 19. Grubbed: June 29. Hoed: July 4. Earthed up: July 13.

3rd planting; Thistles cut: Apr 27. Bouted, artificials applied: May 9. Planted and covered in: May 10. Rolled ridges: May 12. Chain harrowed twice: May 18. Rolled ridges and grubbed: June 7. Grubbed: June 29. Hoed: July 5. Earthed up: July 13.

4th planting; Thistles cut: Apr 27. Bouted, artificials applied, planted and covered in: May 30. Chain harrowed: June 14. Grubbed: June 29. Hoed: July 6. Variety: Majestic. Previous crop: Wheat.

Standard error per plot: Total tubers, 0.572 tons per acre or 11.5% (35 d.f.)

49/Ce/2.2

Total tubers: tons per acre

	Time of Planting				Mean
	March 29th	April 20th	May 10th	May 30th	
Mean (± 0.143)	5.38	5.02	5.07	4.48	4.99
No Dung (± 0.202)	4.43	3.96	4.19	3.47	4.01
Dung	6.33	6.07	5.96	5.50	5.97
Response to Dung (± 0.286)	1.90	2.11	1.77	2.03	1.96 ⁽¹⁾
No Nitrogen (± 0.202)	4.78	4.70	4.88	4.28	4.66
Nitrogen	5.98	5.34	5.26	4.68	5.32
Response to Nitrogen (± 0.286)	1.20	0.64	0.38	0.40	0.66 ⁽¹⁾
No Superphosphate (± 0.202)	5.13	4.99	4.88	4.30	4.82
Superphosphate	5.63	5.05	5.26	4.66	5.15
Response to Superphosphate (± 0.286)	0.50	0.06	0.38	0.36	0.33 ⁽¹⁾
No Potash (± 0.202)	4.99	4.79	4.86	4.31	4.74
Potash	5.77	5.25	5.29	4.65	5.24
Response to Potash (± 0.286)	0.78	0.46	0.43	0.34	0.50 ⁽¹⁾
Standard Error (1) ± 0.143					

Responses to Treatments (± 0.202)

Response to	Dung		Sulphate of Ammonia		Superphosphate		Muriate of Potash	
	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.
Dung	-	-	1.93	1.98	1.88	2.03	2.32	1.59
Sulphate of ammonia	0.64	0.68	-	-	0.55	0.77	0.62	0.70
Superphosphate	0.25	0.40	0.22	0.44	-	-	0.42	0.24
Muriate of Potash	0.87	0.14	0.47	0.54	0.59	0.42	-	-

49/Co/2.3

Percentage Ware

	Time of Planting				Mean
	March 29th	April 20th	May 10th	May 30th	
Mean (± 0.165)	96.89	96.49	96.54	97.90	96.96
No Dung (± 0.233)	96.38	95.60	95.68	97.52	96.29
Dung	97.41	97.39	97.41	98.28	97.62
Response to Dung (± 0.330)	1.03	1.79	1.73	0.76	1.33 ⁽¹⁾
No Nitrogen (± 0.233)	96.56	96.53	96.51	97.78	96.84
Nitrogen	97.23	96.46	96.58	98.02	97.07
Response to Nitrogen (± 0.330)	0.67	-0.07	0.07	0.24	0.23 ⁽¹⁾
No Superphosphate (± 0.233)	97.54	97.36	97.54	98.10	97.63
Superphosphate	96.25	95.63	95.55	97.70	96.28
Response to Superphosphate (± 0.330)	-1.29	-1.73	-1.99	-0.40	-1.35 ⁽¹⁾
No Potash (± 0.233)	96.76	96.16	96.21	97.66	96.70
Potash	97.02	96.83	96.88	98.14	97.22
Response to Potash (± 0.330)	0.26	0.67	0.67	0.48	0.52 ⁽¹⁾
Standard error (1) (± 0.165)					

Responses to Treatments (± 0.233)

Response to	Dung		Sulphate of Ammonia		Super-phosphate		Muriate of Potash	
	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.
Dung	-	-	1.10	1.56	1.06	1.60	1.66	0.99
Sulphate of Ammonia	0.52	-0.07	-	-	0.04	0.41	0.28	0.18
Superphosphate	-1.62	-1.08	-1.54	-1.17	-	-	-1.39	-1.32
Muriate of Potash	0.85	0.18	0.56	0.47	0.48	0.55	-	-