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Yields of the Field Experiments 1950

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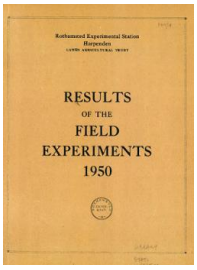

50/CE/2 Potatoes - Time of Planting - Rothamsted

Rothamsted Research

Rothamsted Research (1951) *50/CE/2 Potatoes - Time of Planting - Rothamsted ;* Yields Of The Field Experiments 1950, pp 74 - 76 **- DOI: https://doi.org/10.23637/ERADOC-1-185**

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50/Ce/2.1

POTATOES

Time of planting and fertilizers - Sawyers I 1950.

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

Area of each plot: 0.0218 acre. Area harvested: 0.0146 acre.

Treatments: All combinations of:-
Time of planting: Mar 31, Apr 21, May 12, May 31.
Dung: None, 15 tons FYM per acre ploughed in, in spring.
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, etc.:
Whole experiment: Ploughed: Oct 24-25. Dung applied: Mar 9. Ploughed: Mar 10. Disced both ways: Mar 29. Ring rolled: Mar 30. Hand pulled weeds: July 30-Aug 14. Sprayed with Perenox: Aug 2-3. Sprayed with Coppesan: Aug 23-24. Lifted: Oct 17-18. Variety: Majestic. Previous crop: Wheat.
1st planting; Ridged, applied artificials, potatoes planted and covered in: Mar 31. Rolled down ridges: Apr 3. Harrowed ridges: May 11. Grubbed: May 25. Earthed up: June 28.
2nd planting; Ridged: Apr 20. Applied artificials, potatoes planted and covered in: Apr 21. Rolled ridges: Apr 24. Harrowed ridges: May 11. Grubbed: May 25. Earthed up: June 28.
3rd planting; Ridged, applied artificials potatoes planted and covered in: May 11. Rolled ridges: May 12. Earthed up: June 30.
4th planting; Cultivated: May 18. Ridged, applied artificials, potatoes planted and covered in: May 31. Grubbed: July 13. Earthed up: July 15.

Standard error per plot:
Total clean tubers: 1.44 tons per acre or 13.4% (35 d.f.)

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Summary of Results

Total clean tubers: tons per acre

	Time of planting				
	March 31st	April 21st	May 12th	May 31st	Mean
Mean (±0.360)	12.14	11.00	10.55	9.18	10.72
No Dung (±0.509)	9.73	9.09	8.86	7.70	8.84
Dung	14.56	12.90	12.23	10.65	12.59
Response to Dung (±0.720)	4.83	3.81	3.37	2.95	3.75 (1)
No Nitrogen (±0.509)	10.70	10.16	9.65	8.09	9.65
Nitrogen	13.59	11.83	11.44	10.26	11.78
Response to Nitrogen (±0.720)	2.89	1.67	1.79	2.17	2.13 (1)
No Phosphate (±0.509)	12.05	10.33	10.05	8.35	10.19
Phosphate	12.24	11.66	11.05	10.01	11.24
Response to Phosphate (±0.720)	0.19	1.33	1.00	1.66	1.05 (1)
No Potash (±0.509)	9.65	9.99	9.31	8.63	9.39
Potash	14.64	12.00	11.78	9.73	12.04
Response to Potash (±0.720)	4.99	2.01	2.47	1.10	2.65 (1)

Standard Error (1) ±0.360

Responses to treatments (±0.509)

Response to	Dung		Nitrogen		Phosphate		Potash	
	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.
Dung	-	-	4.04	3.44	4.20	3.28	5.74	1.74
Nitrogen	2.43	1.83	-	-	1.68	2.58	1.83	2.43
Phosphate	1.51	0.59	0.60	1.50	-	-	0.88	1.22
Potash	4.64	0.64	2.34	2.94	2.47	2.81	-	-

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Percentage ware

	Time of planting				
	March 31st	April 21st	May 12th	May 31st	Mean
Mean	86.71	86.42	88.88	84.37	86.60
No Dung	84.52	87.04	87.36	80.20	84.78
Dung	88.90	85.81	90.40	88.54	88.41
Response to Dung	4.38	-1.23	3.04	8.34	3.63
No Nitrogen	85.24	89.16	88.69	82.58	86.42
Nitrogen	88.19	83.69	89.08	86.16	86.78
Response to Nitrogen	2.95	-5.47	0.39	3.58	0.36
No Phosphate	87.06	85.34	89.08	85.02	86.62
Phosphate	86.36	87.51	88.69	83.71	86.57
Response to Phosphate	-0.70	2.17	-0.39	-1.31	-0.05
No Potash	84.05	86.36	88.28	81.91	85.15
Potash	89.38	86.49	89.49	86.82	88.04
Response to Potash	5.33	0.13	1.21	4.91	2.89

Responses to Treatments

Response to	Dung		Nitrogen		Phosphate		Potash	
	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.	Abs.	Pres.
Dung	-	-	6.22	1.04	2.26	5.00	5.82	1.44
Nitrogen	2.95	-2.23	-	-	-2.68	3.40	2.35	-1.63
Phosphate	-1.43	1.31	-3.10	2.98	-	-	-0.75	0.63
Potash	5.08	0.70	4.88	0.90	2.20	3.58	-	-