

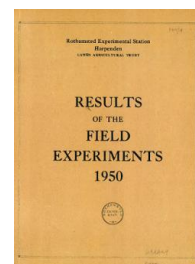
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Yields of the Field Experiments 1950

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Classicals

Rothamsted Research

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50/A/1.1

WHEAT - BROADBALK 1950

The 107th year

For details of treatments etc. see Appendix Y.

Cultivations, etc.:

Cropped sections. Ploughed all except dung plots: Aug 24-29.

Dung applied and ploughed in: Sept 5-6. Springtined:

Oct 15-Nov 1. Artificial fertilizers applied: Nov 3-4. Springtined:

Nov 4 and 8. Harrowed, seed drilled and harrowed twice:

Sept 5-8. Nitrogenous fertilizers applied: Apr 20. Harrowed:

Apr 27. Rolled: May 1. Second dressing of nitrate of soda

applied to plot 16: May 4. Harvested: Aug 8. Variety:

Squareheads Master (13/4).

Fallow section. Ploughed all except dung plots: Aug 24-29.

Ploughed dung plots: Sept 5-6. Springtined: Oct 15-Nov 1,

and again Nov 4 and 8. Ploughed: Dec 12, and again Jan 2-7.

Springtined: Mar 13, Apr 22 and May 13. Thistlebarred:

May 30. Ploughed: Aug 2-3. Springtined: Aug 8.

Springtined, disced and ring rolled: Aug 11.

Total straw³ cwt per acre

Includes straw, cavings and chaff.

50/A/2

BARLEY - HOOSFIELD 1950

The 99th Year

For details of treatments etc. see Appendix Y.

Cultivations, etc.: Ploughed: Aug 24-26. Springtined: Oct 12 and again Nov 5. Dung applied: Dec 2. Ploughed: Dec 2-10. Applied all fertilizers except silicate of soda: Mar 16-20. Springtined: Mar 21. Springtined, harrowed, seed drilled: Mar 24. Harrowed in: Mar 25. Rolled: Mar 27. Silicate of soda applied: Apr 20. Thistles cut: May 26. Sprayed with D.N.O.C.: May 30. Harvested: Aug 14-16. Variety: Plumage Archer.

Summary of Results

Plot	Total Grain cwt: per acre	Total Straw [*] cwt: per acre
1 O	6.6	6.6
2 O	8.6	8.1
3 O	9.1	8.6
4 O	12.5	10.8
5 O	10.6	12.3
1 A	10.7	10.9
2 A	22.2	17.4
3 A	16.9	19.3
4 A	20.2	19.1
5 A	9.9	15.4
1 AA	12.7	12.8
2 AA	17.7	22.3
3 AA	17.3	23.3
4 AA	20.7	21.0
1 AAS	17.0	20.0
2 AAS	25.5	26.1
3 AAS	19.4	20.8
4 AAS	20.5	21.4
1 C	18.7	22.3
2 C	24.1	21.4
3 C	22.3	20.3
4 C	22.1	20.0
7 - 1	11.3	11.7
7 - 2	29.6	31.8
6 - 1	6.8	7.1
6 - 2	6.7	7.7
1 N	13.9	20.0
2 N	21.9	21.4

* Includes straw, savings and chaff.

WHEAT AFTER FALLOW - HOOSFIELD 1950

50/A/3

Without manure 1851 and since

For details of treatments see Appendix Y.

Cultivations, etc.:

Cropped Sections: Ploughed: Aug 30-31. Springtined: Oct 29
 Harrowed, seed drilled and harrowed in: Oct 31. Rolled: Apr 8.
 Crop badly damaged by wheat bulb fly so decision made to plough in
 and resow: Apr 20. Harrowed three times, seed drilled, ring
 rolled and harrowed in: Apr 21. Ring rolled: Apr 22. Thistles
 cut: May 26. Harvested: Sept 8. Variety (Spring sowing):
 Fylgia.

Fallow Sections: Ploughed: Aug 30-31. Springtined: Oct 29
 and Mar 9. Harrowed three times: Apr 21. Ring rolled: May 12.
 Thistle barred: May 30. Ploughed: July 1. Springtined: July 15
 and 31.

Summary of Results

Produce: cwt per acre

No. of years of Fallow Section	1 A3	1 A4	3 A1	Mean
Total Grain	3.4	3.6	4.5	3.8
Total Straw	5.4	4.6	6.1	5.4

CROPS IN ROTATION - AGDELL FIELD 1950

Clover, 3rd crop of 26th course (1948-51)

For details of treatments and rotation see Appendix Y.

Cultivations, etc.:

Cropped Sections: Seed undersown in barley: Apr 14, 1949.
 Plot 2 ploughed up because of weeds: Apr 26, 1950. Topped with
 scythe: Apr 28. Rolled and springtined: May 13. Thistle
 barred: May 31. Weeded: June 30. Cut: July 20. Variety:
 Late-flowering Montgomery Red.

Fallow Sections: Ploughed: Nov 17-18. Springtined: Mar 18.
 Ploughed: Apr 26. Discd: Apr 28, and May 11. Rolled and
 springtined: May 13. Thistle barred: May 31. Ploughed: Aug 10.

Summary of Results

Clover hay: cwt per acre

Manure to Turnips 1948 Plot	Unmanured since 1848 6	Mineral Manure No Nitrogen 4	Complete Mineral and Nitrogenous manure 2
Clover	23.8	48.8	Ploughed up

50/A/4.1

MANGOLDS AND SUGAR BEET - BARNFIELD 1950

For details of treatments etc. see Appendix Y.

Cultivations, etc.:

Dung applied: Nov 14-16. Ploughed: Nov 17-19, and again Mar 13.
 Disc harrowed: Mar 31 and again Apr 13. Fertilizers applied:
 Apr 24-27. Harrowed twice, rolled, mangolds drilled and
 harrowed in: Apr 28. Sugar beet drilled and harrowed in: Apr 29.
 Rolled: Apr 29 - May 1. Hoed: May 6-9 and June 23-28. Singled:
 various days, June 23 - July 8. Top dressings applied: July 8
 and 12. Hoed: various days, July 13 - Aug 4. Sugar beet
 lifted: Nov 22-24. Mangolds lifted: Nov 22-30. Varieties:
 Mangolds - Yellow Globe, sugar beet - Klein E.

Summary of Results

Yields: tons per acre

Strip	O	Cross Dressings		AC	C
		N	A		
Mangolds: Roots					
1	6.10	17.88	18.30	22.20	17.39
2	10.52	24.27	25.18	26.99	23.16
4	0.97	(a) 11.00	8.56	14.48	13.42
		(b) 9.94			
5	1.60	9.35	6.05	9.93	7.39
6	1.08	11.79	10.50	18.72	10.55
7	1.48	10.26	9.48	18.46	10.05
8	1.11	5.68	4.94	10.36	6.49
9	7.05				
Mangolds: Leaves					
1	0.86	2.72	4.09	4.99	2.32
2	2.42	4.18	5.36	5.24	4.04
4	0.59	(a) 2.94	3.47	3.08	2.74
		(b) 3.42			
5	0.42	2.52	2.94	3.45	2.94
6	0.59	2.42	2.32	4.94	2.79
7	0.44	2.57	3.28	4.77	3.03
8	0.51	2.20	2.42	2.81	2.35
9	3.20				

50/A/4.2

Yields: tons per acre

Strip	O	Cross Dressings		AC	C
		N	A		
Sugar Beet: Roots					
1	8.51	16.05	16.29	16.73	15.95
2	7.58	14.83	12.57	16.44	13.55
4	1.21	(b) 9.79	12.43	16.68	13.70
5	1.44	7.39	7.98	12.18	10.03
6	1.31	5.87	9.93	14.73	10.72
7	1.32	8.22	10.52	14.92	9.93
8	0.83	6.80	5.97	9.49	7.54
Sugar Beet: Leaves					
1	6.46	12.87	15.46	17.71	14.73
2	7.14	13.06	12.48	16.49	12.04
4	0.78	(b) 8.02	6.70	11.74	8.71
5	1.52	5.14	6.07	12.18	7.63
6	0.73	8.76	7.63	14.48	9.10
7	0.78	6.80	9.88	19.96	10.47
8	1.71	6.85	7.29	12.43	7.83

50/4/5

HAY - THE PARK GRASS PLOTS 1950

The 95th year

For details of treatments etc.: see Appendix Y

Cultivations, etc.: Minerals applied: Dec 12-14. Chain harrowed:
 Mar 9. Rolled: Mar 13. Nitrogenous fertilizers applied:
 1st dressing Apr 14-15; 2nd dressing: May 1. 1st cut: June 13-15.
 2nd cut: Sept 13-14.

Summary of Results

Plot	Yield of Hay: cwt per acre					
	Not limed			Limed		
	1st Crop	2nd Crop ^{xx}	Total	1st Crop	2nd Crop ^{xx}	Total
1	0.8	7.1	7.9	12.3	4.8	17.1
2	13.0	9.0	22.0	10.1	8.5	18.6
3	10.0	7.9	17.9	11.1	6.1	17.2
4-1	15.7	9.2	24.9	17.9	10.4	28.3
4-2	0.7	4.0	4.7	27.8	6.0	33.8
5-1	3.1	1.8	4.9			
5-2	12.4	10.4	22.8			
6	25.9	20.4	46.3			
7	30.1	16.8	46.9	41.6	15.0	56.6
8	21.1	18.0	39.1	10.1	10.2	20.3
9	38.7	19.1	57.8	39.9	8.6	48.5
10	18.7	18.4	37.1	34.8	9.9	44.7
11-1	48.5	34.6	83.1	50.1	18.0	68.1
11-2	57.8	25.1	82.9	55.5	22.6	78.1
12	8.3	12.0	20.3			
13	28.8	20.0	48.8	30.6	18.2	48.8
14	46.6	24.9	71.5	49.7	12.1	61.8
				36.4 ^{xx}	11.5 ^{xx}	47.9 ^{xx}
15	26.6	14.6	41.2	26.0	9.8	35.8
16	32.7	15.5	48.2	21.7	10.9	32.6
17	15.6	11.9	27.5	18.0	11.4	29.4
18	6.6	10.8	17.4	22.2 ⁺	9.4 ⁺	31.6 ⁺
				21.1 ⁺⁺	11.2 ⁺⁺	32.3 ⁺⁺
19	29.6	20.5	50.1	29.0 ⁺	25.4 ⁺	54.4 ⁺
				32.7 ⁺⁺	21.0 ⁺⁺	53.7 ⁺⁺
20	40.1	21.0	61.1	42.7 ⁺	19.5 ⁺	62.2 ⁺
				43.5 ⁺⁺	20.1 ⁺⁺	63.6 ⁺⁺

^{xx} Shade^{xx} These figures for the second crop are estimated hay yields calculated from the dry matter.⁺ Heavy liming⁺⁺ Light liming

50/A/6

BARLEY - EXHAUSTION LAND HOOSFIELD 1950

For details of previous treatments etc. see Appendix Y.

Cultivations, etc.: Ploughed: Aug 30-Sept 1. Springtined: Oct 14.
Ploughed: Dec 16. Springtined: Mar 8 and again Mar 11.
Sulphate of ammonia drilled: Mar 13. Harrowed: Mar 14. Seed
drilled, harrowed in and rolled: Mar 15. Thistles cut: May 30.
Harvested: Aug 7. Variety: Plumage Archer.

Summary of Results

Plot	Total Grain cwt per acre	Total Straw cwt per acre
1	11.3	16.7
2	15.1	20.4
3	24.2	26.4
4	29.0	30.8
5	12.5	15.2
6	14.7	17.9
7	22.2	26.2
8	26.3	27.4
9	24.4	25.8
10	26.6	28.2

50/4/7

PERMANENT WHEAT - WOBURN STACKYARD 1950

For details of treatments etc. see Appendix Y.

Owing to damage by vermin in the barn, the yields from this experiment were considered too unreliable for publication.

PERMANENT BARLEY - WOBURN STACKYARD 1950

For details of treatments etc. see Appendix Y.

Owing to severe infestation with spurrey the crop was ploughed in.