Cost of production (cereals)

THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

ECONOMICS DEPARTMENT REPORT

Report No.1. - 1952

CROP COSTS, 1951

6, Blythswood Square,
Glasgow, C.2.

July, 1952.

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INTRODUCTION

The crop costing programme for the crop year of 1951 was undertaken on a somewhat reduced scale. This report presents a statistical summary as follows:-

12 Bean Crops.
19 Early Potato Crops
6 Arable Silage Crops
12 Hay Crops.

All of these relate to the crop year of 1951, with the majority of the bean crops being threshed out in the spring or early summer of 1952.

Acknowledgment is made, with thanks, of the co-operation obtained from the farmers whose costing records are summarised herewith.

COSTING METHODS AND CHARGES

The crops were costed as "branch" or "enterprise" costs with actual purchase prices used for manures, seeds and materials bought but with estimated cost used for those items where cost could not accurately be known without complete farm costing. A summary of the charges and cost estimates used is set out below.

All purchased materials, casual labour and contract work	Cost.
Work done by Farmer	2/7d per hour.
" " " Wife	1/10d " "
" " " Male Family	1/1½d - 2/6d " "
" " " Female Family	11½d. - 1/9d " "
Horse work (excluding Horseman)	1/6d. " "
Wheeled Tractor Work (excluding Tractorman)	4/3d. " "
Track-Laying Tractor (ditto.)	6/3d. " "
	13/- - 17/-" "
Dung, at steading.	75% of current market value.
Home produced seeds	

All work done by hired employees was charged at the actual gross rates of remuneration.

The placing of an appropriate share of "farm general expenses" ("overhead expenses") against each costed crop is a matter of great difficulty. The method adopted for the 1951 crop is similar to that used in preparing crop costs for earlier years, namely, applying a certain rate, (a) For each £ of labour used on the crop, plus (b) For each "tractor-equivalent hour" used on the crop plus (c) For each acre occupied by the crop. The rates used for the 1951 crop were:-

Per £ of Labour	6/3 - 8/-
Per "Tractor-Equivalent Hour"	3/6 - 7/-
Per Acre	10/- - 17/6d.

As the majority of the crops costed were grown on dairy farms, the higher rates quoted above were most commonly used. Further, as regards these "overhead" charges, the cost statements have been prepared to show cost before making any charge for "overheads" and cost after calculations on the above lines were made and included.

FORM OF PRESENTATION.

The tables in the Appendix - Tables 1-17 - summarise various aspects of the cost information obtained.

Tables 1,5,6,10,13 and 14 show the average costs per acre and per ton of the costed crops. In/

In these statements the method of preparation used is to show the full cost of the current year's manuring programme separately, then, at a later stage, to show manurial and other residues brought forward from previous crops on the same land, and also residues carried forward to future crops on the same land. The rates of exhaustion applied to dung and fertilisers are those used in the official leaflet of the Department of Agriculture for Scotland.

In Tables 2,7,11, and 16 an attempt has been made to give rather more detail on the cost of individual jobs and operations in growing the crops than is afforded in the main summary tables under stage headings such as "Work: Ready To Sow"; "Work: Sowing," etc. This second group of tables, all relating to "Operations", summarise the cost of man, horse and tractor work in carrying out the named operations. It requires to be emphasised that these costs cover only man, horse and tractor work and the inclusive cost of any contract work used - no charge having been made, at this stage, for depreciation on farm-owned machinery. It will be understood that not all farms carried out the same complete list of individual jobs,and that on some farms, it was not always possible to break up operations such as "potato-planting", "sowing seed and manures" into their smaller component parts. For these reasons, an average obtained by dividing the total cost of any operation over all costed crops by the total acreage costed is misleading. In each of the tables referring to "operation costs", the general average "Over total acreage costed" is given only to link up with the tables showing the average costs per acre and per ton; the approximate operation costs calculated only for farms doing this particular job are shown in the column headed "Only over acreage on which each job was done". Naturally, where all farms carried out any particular job or where it was not possible to break up complete operations as much as is desirable, these two averages are similar. It has to be kept in mind that because of the varying use of horse and tractor work, the varying number of "turns" given by harrows, discs, etc, and for other reasons, the break-up of stage costs into job costs is not as detailed as is desirable.

Tables 3,8 and 15, show the crop yields and costs per acre and per ton for individual crops, and, for the early potato crops give a note of the approximate dates on which lifting took place.

Tables 4,9,12 and 17 give an analysis of the hours of work (contract and farm) by manual labour and horse and tractor power used in handling the costed crops.

A SUMMARY OF THE COSTS.

Beans. For this crop a total of 12 cost records represented 68¼ growing acres. The majority of the costing records were obtained from farms on the Carse of Stirling which area is usually considered to be above average as regards growing beans. All costed crops were dunged - the average dressing being just short of 17 tons per acre.

The grain yield per acre averaged 19½ cwts, with a variation from 13½ cwts to 25¼ cwts per acre.

The average cost, after allowing a small credit for bean straw was:-

	Before Charging "Overhead"	Charging "Overhead" at Standard Rates.
Per Ton of Grain	£29.15/-	£35. 7/-
" Acre.	£29. 2/-	£34.12/-

On the average, over these 12 crops, the bean grain, threshed, cost around £35 per ton when "overhead" was charged at the standard rate, or, if "overhead" is omitted, the grain cost £30 per ton.

The average crop used 70 man hours per acre, which covers from the preliminary dung application up to and including threshing.

The tables relating to the bean crop are:-

Early Potato Crop. The 19 crops costed were all grown on Wigtownshire farms and represent a total of 265 growing acres. The acreage of individual crops costed ranged from 1 acre to 44 acres.

The figures for these 19 costs had to be split into two groups as, after a common intermediate point of "crop in ground ready to lift" had been reached, the method of lifting varied. The groups are:-

Group A ... 9 crops..... Where the grower did all lifting and transported crop off field.

Group B ... 10 crops ..... Where the merchant was largely responsible for lifting and transporting the crop off the field.

With the early potato crop the yield available for sale can vary greatly according to the time of lifting the crop and a note on this point is given in Table 8.

In the two groups, average yields and costs were:-

	Group A (Farmer Lifted)	Group B (Merchant Lifted)
Total Acreage	109	156¾
Average Yield per Acre.	5tons 19cwts.	6tons 17cwts.
Before Charging "Overhead"		
Cost per Ton	£11. 7/-	£8.16/-
Cost per Acre.	£67. 9/-	£60.10/-
Charging "Overhead"		
Cost per Ton	£14. 7/-	£11. 0/-
Cost per Acre	£85. 7/-	£75. 9/-

On account of the large amount of casual and squad labour used, for which the number of hours worked was not obtained, it was not possible to extract a figure for the hours of manual labour employed per acre.

The tables relating to the early potato crop are:-

Arable Silage Crop. Cost records were obtained from only 6 crops, representing a growing area of 39 acres and an estimated average yield, at the opening of the silo for feeding, of just over 9 tons per acre. Average costs were:-

	Before Charging "Overhead"	Charging "Overhead" at Standard Rates.
Per Mature Ton	£1.15/-	£2.13/-
" Acre.	£16. 6/-	£24.16/-

The average labour use on the crop was slightly over 26 man hours per acre.

The tables relating to the arable silage crop are:-

Hay Crop. In all, 12 crops were costed but as 6 of these crops were given dung and the remaining 6 did not have dung applied, the averages have been prepared in two groups. A summary of the cost information is:-

	Group 1 (No Dung)	Group 2 (Dunged)
No. of cost records	6	6
Total acreage costed	56½	48
Average yield per acre.	2tons 10 cwts.	2tons 9cwts.
Before Charging "Overhead"		
Cost per Ton	£4.19/-	£7. 3/-
" " Acre	£12.11/-	£17.12/-
Charging "Overhead"		
Cost per Ton	£6. 3/-	£9. 3/-
" " Acre	£15.11/-	£22. 9/-

On the average, the crops which were not dunged used about 27 man hours per acre and the dunged crops about 36 man hours per acre.

The tables relating to the hay crop are:-

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TABLE 1.

BEAN CROP OF 1951. AVERAGE COSTS PER ACRE AND PER TON.

Number of cost records 12
Acreage costed 68½
Average yield per acre ... ... 19½ cwts. grain

	Averages per Acre			Averages per Ton
	Crops using	Average on 12 crops	£. S. D.	£. S. D.
Dung	12	16¾ tons	13.12.11.	
Lime	1	2¼ cwts.	-. 4.11.	
Slag	5	3½ cwts.	-.12. 1.	
Mineral Phosphates	-	-	-	
Rotational Manures	6	2 cwts.	1. 2. 3.	
Work. Ready to Sow			5.19.10.	
Seeds, Home-Grown	11	2¾ cwts.	4.13. 5.	
Seeds, Purchased	1	¼ cwt.	-. 7. 1.	
Work. Sowing			1. 6. 9.	
Materials to this stage			-	
CROP IN GROUND			27.19. 3.	
Work. Summer			-	
Work. Harvesting			4. -. -.	
Work. Threshing			3.10. 6.	
Materials for these stages			1.16. 2.	
			37. 5.11.	38. 2. 1.
Rent			1. 8. 6.	1. 9. 1.
			38.14. 5.	39.11. 2.
Adjust for residues, etc.				
Add from previous crops:				
Dung residues			-.11. 2.	-.11. 5.
Lime and manure residues			1.19. 3.	2. -. 2.
Turf value			-. 2. 1.	-. 2. 2.
Dung and manure work			-. 5. 8.	-. 5. 9.
Bare fallow			-.12. -.	-.12. 3.
			42. 4. 7.	43. 2.11.
Deduct to following crops:				
Dung residues			7. 2. 1.	7. 5. 1.
Lime and manure residues			2. 7. 8.	2. 8. 9.
Dung and manure work			2. 2. 3.	2. 3. 2.
Bare fallow			-. 6. -.	-. 6. 1.
NET COST OF GRAIN AND STRAW			30. 6. 7.	30.19.10.
Deduct for straw			1. 4. 3.	1. 4. 9.
NET COST OF GRAIN			29. 2. 4.	29.15. 1.
If a share of overheads is included, the cost becomes:-				
NET COST OF GRAIN AND STRAW			30. 6. 7.	30.19.10.
Overheads:				
1. Per Acre			-.10. -.	-.10. 2.
2. Per £ of Labour			2. 8. 2.	2. 9. 3.
3. Per Tractor Equivalent hour			2.16. 7.	2.17.10.
GROSS COST OF GRAIN AND STRAW			36. 1. 4.	36.17. 1.
Deduct for straw			1. 8.10.	1. 9. 7.
GROSS COST OF GRAIN			£34.12. 6.	£35. 7. 6.

TABLE 2

BEAN CROP OF 1951.

COST OF OPERATIONS ON 12 CROPS

$68\frac{1}{4}$ acres with an average yield of $19\frac{1}{2}$ cwts. grain

	Average Cost Per Acre	
	Over total acreage costed.	Only over acreage on which each job was done
	£. S. D.	£. S. D.
Dung Work	4. 0.11	4. 0.11
Ploughing	1.16. 6	1.16. 6
Discing	1. 4	7. 1
Cultivating	1. 1	18.10
Sowing Beans: Hand	1.10	2. 9
" " Machine	3. 3	9. 9
Harrowing	12. 9	12. 9
Sowing Manure: Machine	4. 6	5. 1
Sowing Lime	2. 1	19.11
Rolling	2. 5	3. 0
CROP IN GROUND	7. 6. 8	
Cutting Roads	2. 6	4.11
Cutting Beans	1. 1. 9	1. 1. 9
Stooking	16. 4	16. 4
Leading and Stacking	1.12. 3	1.12. 3
Thatching	7. 2	7. 2
HARVESTING	4. 0. 0	
Threshing and Baling: Hired Mill and Baler	1.15. 5	3.19. 2
Threshing: Hired Mill	1.11. 5	3. 7. 6
Threshing: Own Mill	3. 8	2. 2. 2
THRESHING	3.10. 6	
TOTAL	£14.17. 2	

TABLE 3.

BEAN COSTS 1951. RANGE OF YIELDS & COSTS.

(Including Share of Overheads)

	Yield/Acre Cwts.	Cost/Acre £. S. D.	Cost/Ton £. S. D.
1.	25.2	28. 2.10.	22. 7. 8.
2.	25.0	37.19. 2.	30. 7. 4.
3.	23.0	35. 6. 2.	30.14. 1.
4.	22.4	36.14. 7.	32.15.10.
5.	22.0	35.10. 3.	32. 5. 8.
6.	19.2	41. 2. 8.	42.19. 6.
7.	18.8	28.16. 7.	30.14. 5.
8.	18.6	33. 0. 2.	35. 7. 4.
9.	17.8	33.15.10.	38. 0. 4.
10.	17.6	29.13. 8.	33.18. 6.
11.	16.4	37.14.10.	46. 4. 4.
12.	13.4	32.12. 0.	48.18. 0.

TABLE 4.

BEAN CROP OF 1951.

STRUCTURE & COST OF LABOUR & POWER USE.

	Before Sowing	Sowing	Harvesting	Threshing	Total
HOURS OF WORK PER ACRE:					
Contract: Man Hours	-	-	-	1.80	1.80
Horse Hours	-	-	-	-	-
Tractor Hours	-	-	-	.86	.86
Other Machine Hours	-	-	-	.86	.86
Casual Workers & Neighbours	1.19	.13	2.57	9.81	13.70
Farmer & Staff	26.42	4.98	19.82	3.63	54.85
TOTALS: Man Hours	27.61	5.11	22.39	15.24	70.35
Horse Hours	16.51	4.36	3.20	1.55	25.62
Tractor Hours	3.83	1.39	3.37	2.05	10.64
Other Machine Hours	-	-	-	1.80	1.80
COST OF WORK PER ACRE:	£. S. D.	£. S. D.	£. S. D.	£. S. D.	£. S. D.
Contract Work, inclusive	- - -	-- - -	- - -	1. 7.10.	1. 7.10.
Casual Workers & Neighbours	-. 3. 2.	-. -. 4.	-. 6. 9.	1. 5. 2.	1.15. 5.
All Farm Labour	3.15. 8.	-.14. 0.	2.14. 1.	-.10. 1.	7.13.10.
Farm Horse	1. 4. 9.	-. 6. 7.	-. 4.10.	-. 2. 4.	1.18. 6.
Farm Tractor	-.16. 3.	-. 5.11.	-.14. 4.	-. 5. 1.	2. 1. 7.
	5.19.10.	1. 6.10.	4. 0. 0.	3.10. 6.	14.17. 2.

TABLE 5

EARLY POTATO CROP OF 1951. AVERAGE COSTS PER ACRE & PER TON

Group A:- Grower did all lifting & transported crop off field

Number of cost records 9
Acreage costed 109
Average yield per acre . . . . . 5 tons 19 cwts.

	Crops Using	Averages PER ACRE Average on 9 Crops	£.	S.	D.	Averages PER TON £.	S.	D.
Dung	4	8½ tons	5.	6.	8.			
Grancreta	4	½ ton	2.	15.	8.			
Lime	1	1 cwt.	-.	2.	3.			
Slag	-	-		-				
Mineral Phosphates	-	-		-				
Rotational Manures	9	19 cwts.	12.	13.	7.			
Work. Ready to Plant			5.	10.	11.			
Seed, Home-Grown	2	1¾ cwts.	1.	1.	6.			
Seed, Purchased	8	22¾ cwts.	16.	2.	3.			
Work. Planting			3.	10.	3.			
Box Upkeep			-.	16.	6.			
CROP IN GROUND			47.	19.	7.			
Work. Summer			3.	6.	8.			
Work. Harvesting			16.	9.	0.			
Materials for these stages			-.	14.	2.			
			68.	9.	5.	11.	10.	2.
Rent			1.	6.	11.	-.	4.	6.
			69.	16.	4.	11.	14.	8.
Adjust for residues, etc:-								
Add from previous crops								
Dung and Grancreta residues			5.	8.	6.	-.	18.	3.
Lime and manure residues			5.	12.	8.	-.	18.	11.
Turf value			-.	2.	9.	-.	-.	6.
Dung and manure work			1.	7.	4.	-.	4.	7.
			82.	7.	7.	13.	16.	11.
Deduct to following crops								
Dung and Grancreta residues			6.	9.	4.	1.	1.	9.
Lime and manure residues			6.	19.	10.	1.	3.	6.
Dung and manure work			1.	9.	4.	-.	4.	11.
NET COST			67.	9.	1.	11.	6.	9.
If a share of overheads is included, the cost becomes								
NET COST			67.	9.	1.	11.	6.	9.
Share of overheads:-								
1. Per acre			-.	17.	6.	-.	2.	11.
2. Per £ of labour			9.	11.	0.	1.	12.	1.
3. Per Tractor Equivalent hour			7.	16.	0.	1.	6.	3.
GROSS COST			85.	13.	7.	14.	8.	0.
Deduct for brock			-.	6.	3.	-.	1.	1.
ADJUSTED COST			85.	7.	4.	14.	6.	11.

TABLE 6.

EARLY POTATO CROP OF 1951. AVERAGE COSTS PER ACRE AND PER TON.

Group B:- Merchant largely responsibly for lifting

Number of cost records 10
Acreage costed 156¾
Average yield per acre ... ... 6 tons 17 cwts.

	Averages Per Acre			Averages Per Ton
	Crops using	Average on 10 crops	£. S. D.	£. S. D.
Dung	6	8½tons	5.11. 9.	
Grancreta	1	¼ton	-.16.11.	
Lime	-	-	-	
Slag	1	2½cwts.	-.15.11.	
Mineral Phosphates	-	-	-	
Rotational Manures	10	23¼cwts.	16.11. 2.	
Work. Ready to Plant		-	7. 8. 3.	
Seed, Home-Grown	1	¾cwt.	-. 9. 7.	
Seed, Purchased	10	24 cwts.	17. 6. 6.	
Work, Planting			3.19. 3.	
Box Upkeep			1. 2. 9.	
CROP IN GROUND			54. 2. 1.	
Work. Summer			4. -. 5.	
Work. Harvesting			2. 6. 3.	
Materials for these stages			-.14. 8.	
			61. 3. 5.	8.18. -.
Rent			1.19. 6.	-. 5. 9.
			63. 2.11.	9. 3. 9.
Adjust for residues, etc:-				
Add from previous crops				
Dung and Grancreta residues			3.16. 5.	-.11. 1.
Lime and manure residues			8.17. -.	1. 5. 9.
Turf value			-. 4. 3.	-. -. 8.
Dung and manure work			1. 1. 4.	-. 3. 1.
			77. 1.11.	11. 4. 4.
Deduct to following crops				
Dung and Grancreta residues			4.17.10.	-.14. 3.
Lime and manure residues			10. 2. 6.	1. 9. 6.
Dung and manure work			1.11. 1.	-. 4. 6.
NET COST			60.10. 6.	8.16. 1.
If a share of overheads is included, the cost becomes:-				
NET COST			60.10. 6.	8.16. 1.
Share of overheads:-				
1. Per acre			-.17. 6.	-. 2. 7.
2. Per £ of labour			4.15. 3.	-.13.10.
3. Per Tractor Equivalent hour			9. 6. 5.	1. 7. 2.
GROSS COST			£75. 9. 8.	£10.19. 8.

TABLE 7.

EARLY POTATO CROP OF 1951

COST OF OPERATIONS ON 19 CROPS

265¾ acres with an average yield of 6 tons 10 cwts.

	Average Cost per Acre	
	Over Total Acreage	Only over acreage on which each job was done
	£. S. D.	£. S. D.
Repairing Boxes	-. 4. 3.	-. 5. 5.
Boxing Seed, Inspecting, etc.	1. 1. 3.	1. 2. 4.
Spreading Lime	-. -. 3.	-.16.10.
Seaweed Work	-. 4. 1.	-.12.10.
Grancreta Work	-. 2. 8.	1. 3.11.
Dung Work	1.12. 2.	2. 6. 3.
Ploughing	1.15.11.	1.15.11.
Discing	-. 2. 3.	-. 6. 7.
Cultivating	-. 1. 9.	-. 5. 6.
Discing and Cultivating	-. 1. 8.	-.10.10.
Harrowing	-. 3. 3.	-. 4. 5.
Cultivating and Harrowing	-. -. 7.	-.13.10.
Opening Drills	-. 2. 2.	-. 5.10.
Opening and Closing Drills	-. 1. -.	-.12.11.
Harrowing, Opening Drills and Sowing Fertilizers	-. -. 2.	-.12. 4.
Opening Drills and Applying Fertilizers	-. 8. 9.	1. 1. -.
Miscellaneous	-. 2. 3.	1. 8. 8.
Opening and Closing Drills (incl. Fertilizers)	-. -. 8.	-. 9. 6.
Sowing Fertilizers	-. 5. 2.	-.11. 8.
Carting out Seed and Fertilizers	-.12. 3.	-.14. 7.
Planting	2. 6. 4.	2. 8.11.
Closing Drills	-. 9. 3.	-.12. 6.
Carting in Boxes	-. 2.11.	-. 4.11.
Complete Planting Job	-. 7. 7.	7. 4. 2.
CROP IN GROUND	10. 8. 7.	
Harrowing and Row Crop Work	-. 1. 3.	1.11. 1.
Harrowing (Saddle or Chain)	-. 5. 2.	-. 7. 1.
Top Dressing	-. -. 2.	-.13. 1.
Row Crop Work	-.17.11.	-.19. 1.
Hand Weeding	1.19. 8.	2. 6. 3.
Hand Hoeing	-. 3. 1.	1. 6. 9.
Setting up	-. 6. 9.	-. 7. 2.
Summer Work (All operations)	-. -. 9.	2. 3. 2.
SUMMER WORK	3.14. 9.	
Harvesting (Method A)	6.15. -.	16. 9. -.
Harvesting (Method B)	1. 7. 3.	2. 6. 3.
HARVESTING	8. 2. 3.	
TOTAL	£22. 5. 7.	

TABLE 8.

EARLY POTATO COSTS 1951. RANGE OF YIELDS & COSTS.

With approximate dates of lifting for certain crops.

(Including Share of Overheads.)

	Yield/Acre Tons	Cost/Acre £. S. D.	Cost/Ton £. S. D.
METHOD A			
1.	13.28	126.17. 9.	9.11. 2.
2.	6.60	80.12. 3.	12. 4. 2.
3.	6.08	92. 4. 8.	15. 3. 8.
4.	5.85	82.10. 6.	14. 2. 2.
5.	5.75	71. 9. 6.	12. 8. 7.
6.	5.75	77. 4. 4.	13. 8. 7.
7.	5.26	76.10. 2.	14.10. 9.
8.	4.92	82. 4. 8.	16.14. 3.
9.	4.50	90.17. 0.	20. 3. 9.
METHOD B			
10.	10.00	66.10. 0.	6.13. 0.
11.	8.38	65.17.11.	7.17. 3.
12.	8.25	89. 1.10.	10.15.11.
13.	7.75	90. 0. 6.	11.12. 4.
14.	6.09	78.17. 5.	12.19. 0.
15.	6.00	73.12. 6.	12. 5. 5.
16.	5.76	56. 2. 7.	9.14.10.
17.	5.24	60.15. 2.	11.11.10.
18.	5.11	64.10. 3.	12.12. 8.
19.	4.20	87. 6. 6.	20.15.10

Lifting Dates Where Available.

No. 2:- 1st - 31st July; No. 3:- 25th June and 12th - 15th August;
No. 5:- 1st - 2nd August; No. 6:- 30th June to 2nd July; No. 7:- 31st July
No. 9:- 7 - 20th July; No. 10:- 24 - 31st July; No. 12:- 12-20th July;
No. 13:- 3 - 16th July; No. 14:- 1 - 7th July; No. 15:- 21st June - 7th July;
No. 16:- 25th June; No. 17:- 7 - 14th July; No. 18:- 29th June - 9th July;
No. 19:- 7 - 12th July.

TABLE 9

EARLY POTATO CROP OF 1951

COST OF LABOUR & POWER USE

METHOD A

COST OF WORK PER ACRE:	Before Planting	Planting	Summer Work	Harvesting	Total
	£. S. D.	£. S. D.	£. S. D.	£. S. D.	£. S. D.
Contract Work, inclusive	-	-. -. 4.	-	-	-. -. 4.
Casual Workers & Neighbours	-. 7. 8.	1. 17. 3.	1. 8. 2.	14. -. 10.	17. 13. 11.
All Farm Labour	3. 2. 4.	-. 16. 11.	1. 1. 11.	1. 2. 6.	6. 3. 8.
Farm Horse	-. 10. 5.	-. 1. 7.	-. 2. 7.	-	-. 14. 7.
Farm Tractor	1. 10. 6.	-. 14. 2.	-. 14. 0.	1. 5. 8.	4. 4. 4.
	5. 10. 11.	3. 10. 3.	3. 6. 8.	16. 9. -.	28. 16. 10.

METHOD B

COST OF WORK PER ACRE:					
Contract Work, inclusive	-	-	-	-	-
Casual Workers & Neighbours	1. 3. 2.	2. 3. 1.	1. 17. 10.	-. 4. 5.	5. 8. 6.
All Farm Labour	3. 8. 8.	1. 0. 1.	1. 4. 3.	-. 16. 7.	6. 9. 7.
Farm Horse	-. 3. 1.	-. 1. 5.	-. 1. 9.	-. 3. 9.	-. 10. 0.
Farm Tractor	2. 13. 4.	-. 14. 8.	-. 16. 7.	1. 1. 6.	5. 6. 1.
	7. 8. 3.	3. 19. 3.	4. 0. 5.	2. 6. 3.	17. 14. 2.

TABLE 10

ARABLE SILAGE CROP OF 1951. AVERAGE COSTS PER ACRE & PER TON

Number of cost records 6
Acreage costed 39
Average yield of mature silage per acre...9 tons 6cwts.

	Crops Using	Average on 6 crops	Averages PER ACRE £. S. D.	Averages PER TON £. S. D.
Dung			-	
Lime			-	
Slag			-	
Mineral Phosphates			-	
Rotational Manures	6	3¼ cwts.	2. 2. 2.	
Work. Ready to Sow			1. 7. 2.	
Seeds, Home-grown			-	
Seeds, Purchased			3. 12. 1.	
Work. Sowing			-. 11. 9.	
Materials to this stage			-	
CROP IN GROUND			7. 13. 2.	
Work. Cut and fill			5. 9. 3.	
Materials: Harvesting, Molasses, Covering			-. 4. 3.	
Depreciation: Special field implements			-. 11. 0.	
Special chaffing implements			-. 2. 9.	
Annual charge for silo			-. 5. 11.	
Fuel and power for special implements			-	
			14. 6. 4.	1. 10. 8.
Rent			1. 6. 10.	-. 2. 11.
			15. 13. 2.	1. 13. 7.
Adjust for residues, etc.				
Add from previous crops:-				
Dung residues			-	-
Lime and manure residues			3. 9. 10.	-. 7. 6.
Dung and manure work			-. 1. 3.	-. -. 2.
			19. 4. 3.	2. 1. 3.
Deduct to following crops:-				
Dung residues			-	-
Lime and manure residues			2. 17. 9.	-. 6. 2.
Dung and manure work			-. -. 9.	-. -. 1.
NET COST			16. 5. 9.	1. 15. 0.
If a share of overheads is included, the cost becomes				
NET COST			16. 5. 9.	1. 15. 0.
Share of overheads:-				
1. Per acre			-. 17. 6.	-. 1. 10.
2. Per £ of labour			1. 4. 7.	-. 2. 8.
3. Per Tractor Equivalent hour			6. 8. 5.	-. 13. 9.
GROSS COST			24. 16. 3.	2. 13. 3.

TABLE 11

ARABLE SILAGE CROP OF 1951

COST OF OPERATIONS ON 6 CROPS.

39 acres with an average yield of 9 tons 6 cwts.

	Average Cost per Acre	
	Over total acreage.	Only over acreage on which each job was done
	£. S. D.	£. S. D.
Ploughing	19. 8	19. 8
Discing and/or harrowing	9. 2	9. 2
Sow Seed and Manures	7. 5	7. 5
Gathering Stones	1. 2	5. 0
Rolling	1. 6	1.10
CROP IN GROUND	1.18.11	
Cutting, Filling Silo, etc.	5. 9. 3	5. 9. 3
TOTAL COST	£7. 8. 2	

TABLE 12

STRUCTURE & COST OF LABOUR & POWER USE

	Crop in Ground	Harvesting	Total
HOURS OF WORK PER ACRE:			
Contract: Man Hours	.29		.29
Horse Hours	-		-
Tractor Hours	.29		.29
Other Machine Hours	-		-
Casual Workers & Neighbours Farmer and Staff	5.40	20.63	26.03
TOTALS: Man Hours	5.69	20.63	26,32
Horse Hours	2.53	.41	2.94
Tractor Hours	3.84	14.06	17.90
Other Machine Hrs.	-	-	-
COST OF WORK PER ACRE:	£. S. D.	£. S. D.	£. S. D.
Contract Work, inclusive	7. 5		7. 5
Casual Workers & Neighbours	- -		- -
All Farm Labour	12. 8	2. 8.11	3. 1. 7
Farm Horse	3. 9	7	4. 4
Farm Tractor	15. 1	2.19. 9	3.14.10
	£1.18.11	£5. 9. 3	£7. 8. 2

TABLE 13

HAY CROP OF 1951. AVERAGE COSTS PER ACRE & PER TON

6 records of crops without dung

Acreage costed 56½
Average yield per acre . . . . 2 tons 10½cwts.

	Crops Using	Averages PER ACRE Average on 6 crops	£.	S.	D.	Averages PER TON £.	S.	D.
Dung				-				
Lime				-				
Slag				-				
Mineral Phosphates				-				
Rotational Manures	6	4½ cwts.	3.	2.	4.			
Work. Ready to Sow				-				
Work. Sowing			-.	10.	10.			
Work. Harvesting			4.	11.	4.			
Materials for these stages			-.	16.	8.			
			9.	1.	2.	3.	11.	7.
Rent			1.	9.	0.	-.	11.	5.
			10.	10.	2.	4.	3.	0.
Adjust for residues, etc.								
Add from previous crops:-								
Dung residues			1.	9.	6.	-.	11.	8.
Lime and manure residues			2.	4.	2.	-.	17.	6.
Share of sow-out			-.	16.	6.	-.	6.	6.
Dung and manure work			-.	11.	8.	-.	4.	7.
			15.	12.	0.	6.	3.	3.
Deduct to following crops:-								
Dung residues			-.	14.	9.	-.	5.	10.
Lime and manure residues			1.	19.	11.	-.	15.	9.
Dung and manure work			-.	5.	11.	-.	2.	4.
NET COST			12.	11.	5.	4.	19.	4.
If a share of overheads is included, the cost becomes:-								
NET COST			12.	11.	5.	4.	19.	4.
Overheads:-								
1. Per acre			-.	14.	10.	-.	5.	10.
2. Per £ of labour			1.	6.	0.	-.	10.	3.
3. Per Tractor Equivalent hour			2.	0.	6.	-.	16.	0.
GROSS COST			16.	12.	9.	6.	11.	5.
Less share of cost to:-								
1. Winter grazing			-.	-.	5.	-.	-.	2.
2. Aftermath			1.	1.	2.	-.	8.	4.
GROSS COST OF HAY			15.	11.	2.	6.	2.	11.

TABLE 14

HAY CROP OF 1951. AVERAGE COSTS PER ACRE & PER TON.

6 Records of Crops with Dung

Acreage Costed 48

Average Yield per Acre.. 2T. 9cwt.

	Crops Using	Average on 6 Crops	Average PER ACRE £. S. D.	Averages PER TON £. S. D.
Dung	6	10 tons	6. 9. 6	
Lime	-		- - -	
Slag	1	3 cwts	10. 3	
Mineral Phosphates	-		- - -	
Rotational Manures	6	4¾cwts	3.14. 4	
Work: Ready to Sow			2.14. 8	
Work: Sowing			12. 5	
Work: Harvesting			4. 3. 8	
Materials for these stages.			4. 9	
			18. 9. 7	7.10. 5
Rent			19. 5	7. 11
			19. 9. 0	7.18. 4
Adjust for residues, etc.				
Add from previous crops				
Dung residues			2.12. 1	1. 1. 2
Lime & manure residues			2. 3. 6	17. 8
Share of sow-out			15. 6	6. 4
Dung and manure work.			1. 0.10	8. 6
			26. 0.11	10.12. 0
Deduct to following crops.				
Dung residues			4. 7.10	1.15. 9
Lime and manure residues			2. 7. 3	19. 3
Dung and manure work			1.13.10	13. 9
NET COST			£17.12. 0	£7. 3. 3
If a share of overheads is included, the cost becomes:-				
NET COST			17.12. 0	7. 3. 3
Overheads:				
1. Per acre.			17. 2	7. 0
2. Per £ of labour			1.17.10	15. 4
3. Per Tractor Equivalent hour			4. 4. 4	1.14. 4
GROSS COST			24.11. 4	9.19.11
Less share of cost to:-				
1. Winter grazing			2. 1	10
2. Aftermath			2. 0. 0	-.16. 3
GROSS COST OF HAY			£22. 9. 3	£9. 2.10

TABLE 15.

HAY COSTS 1951. RANGE OF YIELDS & COSTS.

(Including Share of Overheads)

GROUP I. Without dung	YIELD/ACRE Tons	COST/ACRE £. S. D.	COST/TON £. S. D.
1.	3.00	15. 2. 2.	5. 0. 8.
2.	3.00	20.15. 6.	6.18. 6.
3.	2.88	14. 6. 4.	4.19. 5.
4.	2.68	16.17. 6.	6. 6. 1.
5.	2.05	14. 4. 6.	6.18. 9.
6.	1.83	15.16. 2.	8.12. 6.
GROUP II. With dung.			
7.	3.00	24. 7. 7.	8. 2. 6.
8.	2.86	24. 1.11.	8. 8. 8.
9.	2.60	27.17.11.	10.14. 7.
10.	2.50	19.18. 5.	7.19. 4.
11.	2.30	21.10.10.	9. 7. 1.
12.	1.60	18. 3. 2.	11. 7. 0.

TABLE 16.

HAY CROP OF 1951.

COST OF OPERATIONS.

6 Crops without dung 56½acres - average yield 2tons 10½cwts.	Average Cost over total acreage		Average Cost only over acreage on which each job was done.
	Per acre. £. S. D.	Per Ton £. S. D.	Per acre. £. S. D.
Sowing Manure	-. 7. 3.	-. 2.10.	-. 7. 3.
Gathering Stones	-. -. 8.	-. -. 3.	-. 1.11.
Rolling	-. 2.11.	-. 1. 2.	-. 2.11.
	-.10.10.	-. 4. 3.	
Cutting	-.16. 3.	-. 6. 5.	-.16. 3.
Haymaking	1.18. 4.	-.15. 2.	1.18. 4.
Inning	1.16. 9.	-.14. 6.	1.16. 9.
	4.11. 4.	1.16. 1.	
	5. 2. 2.	2. 0. 4.	
6 Crops with dung 48acres - average yield 2tons 9cwts			
Dung Work	2.14. 8.	1. 2. 3.	2.14. 8.
Sowing Manure	-. 5.10.	-. 2. 4.	-. 5.10.
Harrowing	-. 4. 4.	-. 1. 9.	-. 6. 2.
Rolling	-. 2. 3.	-. -.11.	-. 2. 7.
	-.12. 5.	-. 5. 0.	
Cutting	-. 7. 8.	-. 3. 2.	-. 7. 8.
Haymaking	1.15. 7.	-.14. 5.	1.15. 7.
Inning	2. 0. 6.	-.16. 6.	2. 0. 6.
	4. 3. 9.	1.14. 1.	
	7.10.10.	3. 1. 4.	

TABLE 17.

HAY CROP OF 1951.

STRUCTURE AND COST OF LABOUR AND POWER USE.

6 Crops without dung	Before Sowing	Sowing	Harvesting	Total
HOURS OF WORK PER ACRE:				
Contract: Man Hours				-
Horse Hours				-
Tractor Hours				-
Other Machine Hours				-
Casual Workers & Neighbours			.94	.94
Farmer and Staff		1.92	24.51	26.43
TOTALS: Man Hours		1.92	25.45	27.37
Horse Hours		.31	1.85	2.16
Tractor Hours		1.30	5.56	6.86
Other Machine Hours		-	-	-
COST OF WORK PER ACRE:	£. S. D.	£. S. D.	£. S. D.	£. S. D.
Contract Work, inclusive	-	-	-	-
Casual Workers & Neighbours	-	-	-. 2. 4.	-. 2. 4.
All Farm Labour	-	-. 4.11.	3. 2. 7.	3. 7. 6.
Farm Horse	-	-. -. 5.	-. 2. 9.	-. 3. 2.
Farm Tractor	-	-. 5. 6.	1. 3. 8.	1. 9. 2.
	-	-.10.10.	4.11. 4.	5. 2. 2.

6 Crops with Dung				
HOURS OF WORK PER ACRE:				
Contract: Man Hours			.12	.12
Horse Hours			-	-
Tractor Hours			.09	.09
Other Machine Hours			.06	.06
Casual Workers and Neighbours			.24	.24
Farmer and Staff	11.59	2.22	21.94	35.75
TOTALS: Man Hours	11.59	2.22	22.30	36.11
Horse Hours	.67	1.23	1.90	3.80
Tractor Hours	5.07	1.04	4.92	11.03
Other Machine Hours			.06	.06
COST OF WORK PER ACRE:	£. S. D.	£. S. D.	£. S. D.	£. S. D.
Contract Work, inclusive	-	-	-. 3. -.	-. 3. -.
Casual Workers & Neighbours	-	-	-. -. 9.	-. -. 9.
All Farm Labour	1.12. 1.	-. 5.11.	2.16. 3.	4.14. 3.
Farm Horse	-. 1. -.	-. 1. 8.	-. 2.10.	-. 5. 6.
Farm Tractor	1. 1. 7.	-. 4.10.	1. -.11.	2. 7. 4.
	£2.14. 8.	£-.12. 5.	£4. 3. 9.	£7.10.10.