Silage Cost of Production

THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

ECONOMICS DEPARTMENT REPORT

No. 3—1950 JULY, 1950

SILAGE COSTS, 1949.

(With Notes on Some Fodder-Crop Costs).

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FOREWORD AND SUMMARY.

The investigation into the costs of crop production was continued for the 1949 crop. It was decided that the silage crop should be given first place, and for that reason this report deals principally with a summary of the cost results for some grass silage and arable silage crops, with additional notes on some other fodder-crops for which cost records became available. Figures are presented from 28 grass silage costs and 11 arable silage costs.

In a previous Report (No. 8—1949) cost figures were given for 13 arable silage crops and for only 3 grass silage crops, and it was stated then that some of the special points which arise in silage costing had not been fully resolved. The costing methods used for the 1949 crop, representing some improvement in method, are detailed in a later section.

Summarising the costing results, the average cost of grass silage for the 1949 crop was £3 2/- per mature ton over 28 crops. The arable silage average cost in 1949 was £3 12/- per mature ton compared to about £2 15/- for the 1948 crop which, however, averaged out at a higher yield. These average costs are as complete and inclusive as is possible, and also contain a substantial sum as the share of farm "overheads" allocated to the crops, amounting to rather over 16/- per ton for grass silage and about 18/6 per ton with the arable silage.

It is also important to note that some of the grass silage area was cut more than once, and some of these multiple-cuts lowered the general average of yield per acre. For 19 crops only single-cut, and averaging $5\frac{1}{4}$ tons as the estimated mature yield per acre, the cost per ton was about £2 17/-.

Oat costs available totalled 15, representing $101\frac{1}{2}$ acres, and showed a cost, threshed, of £17 17/- per ton of grain on an average yield of $21\frac{1}{2}$ cwts. grain per acre. With 6 mashlum crops totalling 46 acres, the cost per ton of grain, threshed, was £19 9/- on a grain yield of 22 cwts. per acre. Bean cost records numbered 6, covering 28 acres, with an average yield of 23 cwts. per acre, and an average cost per ton, threshed, of £28 12/-. For 7 turnip and swede crops totalling $22\frac{1}{2}$ acres, the average cost per ton was £2 13/- ready to feed, on an average yield of $18\frac{3}{4}$ tons.

The figures for the various crops are given in more detail in the Appendix tables.

ACKNOWLEDGMENTS.

The assistance given by the farmers whose cost-records are incorporated in the information provided by this report is acknowledged with thanks and appreciation.

Members of staff who collected and prepared cost records for inclusion in the report were MARGARET K. BOWIE, F. MCINTOSH, A. J. SPALDING, R. M. STURGEON and J. THORBURN.

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GRASS SILAGE.

Cost records were obtained from 30 crops, but for grouping purposes one cost record, relating to a rather unusual case, was omitted from the averages.

The 29 crops costed included 19 where only a single cut was taken from the costed acreage, and 9 crops, where some or all of the acreage was cut more than once. For the purposes of a general average the figures for the 28 crops are combined in Table 1 in the Appendix.

Considering first the single-cut crops, the average estimated yield per acre at maturity (*i.e.*, ready to feed, and after allowing for any markedly evident wastage) was 5¼ tons, and the cost per ton £2 16/-. This average relates entirely to crops not chaffed before filling; 17 of the 19 being stored in trench silos, and 2 crops in vertical silos. It was not possible to obtain a chemical analysis for all these costed crops, but some of the analyses available suggest that in several cases cutting was carried out at a fairly late stage of maturity, and this may have added somewhat to the actual bulk of silage on which the per ton figures are computed.

With the multiple-cut crops the cost per ton was higher, averaging out at £3 13/- per mature ton, but this is explained by the lower average yield obtained per acre of growing area and also per cut taken. Again, none of the crops were chaffed before filling; 7 going into trench silos and 2 into vertical silos.

Costs per acre were comparable at £13 13/- for the 19 single-cut crops, and £13 10/- for the multiple-cut crops.

Over the whole 28 crops costed, the labour use was about 4¾ man hours, ¾ horse hour, and 1½ tractor hours per ton.

Tables 1 and 2 in the Appendix give details of the averages obtained.

ARABLE SILAGE.

Cost records were completed for 11 crops, which totalled 88½ acres, giving 8 acres as the size of the average crop.

As with grass silage, the yields used for the cost calculations were based on the estimated " mature yield " at the time of opening the silo. Over the 11 crops this yield worked out at 7½ tons per acre.

While the methods of storing the crops varied, the costing sample available is too small to merit averages of any sub-divisions within it. The averages given, therefore, relate to :—

5 crops (36½ acres) into trench silos, without chaffing.
1 crop (5 acres) into trench silo, chaffed.
5 crops (47 acres) into vertical silos, chaffed.

The general average of the costs of these 11 crops was £3 12/- per mature ton.

Labour and power use was approximately 5 man hours, 1 horse hour, and 2 tractor hours per mature ton.

Table 3 in the Appendix gives details of the cost items.

OATS.

Cost records from 15 crops, totalling 101½ acres, were completed, with an average yield of 21½ cwts. of grain and 19½ cwts. of straw per acre.

After giving credit for straw produced, the average cost per acre was £19 6/-, or £17 17/- per ton of grain, threshed out. All crops were threshed from the stack.

The average labour and power use per acre was 44 man hours, 21 horse hours, and 7 tractor hours.

While the total sample of cost records was insufficient for sub-grouping within the 15 crops for averages to be of much value, the costs per acre and per ton according to a yield grouping are of interest :—

	Low Grain Yields.	Medium Grain Yields.		High Grain Yields.
		(a)	(b)	
Cost Records	3	6	4	2
Average acreage ...	7½	6	7½	7
Per acre yield—				
Cwts. grain ...	15½	20½	23½	28
Cwts. straw ...	17¼	18¼	17¼	31½
Grain Cost—				
Per Acre	£21 2/-	£17 19/-	£18 13/-	£21 15/-
Per Ton	£22 10/-	£17 12/-	£15 16/-	£15 10/-

High costs of harvesting offer a partial explanation of the high per acre costs in the " low yield " group, while high per acre costs in the " high yield " group are partly due to the crops having been limed, and to the fact that a high-priced seed was used.

Table 4 in the Appendix gives a general average of costs and labour and power use for the 15 crops.

MASHLUM.

The average cost per ton on a yield of 21¾ cwts. of mixed oat and bean grain was £19 9/-.

The items of cost are given in Appendix Table 5.

BEANS.

Over 6 crops the average yield was 23 cwts. of grain per acre, and the average cost per ton of grain was £28 12/-. Table 6 in the Appendix gives the average items of cost.

TURNIPS AND SWEDES.

Over 7 crops showing an average yield of 18¾ tons, the cost at the steading ready to feed was £2 13/- per ton. The averages are given in Appendix Table 7.

COSTING METHODS AND CHARGES.

The crops were costed as " branch " or " enterprise " costs, that is, the actual purchase prices paid were charged against manures, purchased seeds and some materials, but estimates of cost were used for all other items. Casual labour and contract work were charged at the actual rates paid by the farmer, and hired labour at the actual gross rates of remuneration.

Estimated rates used for certain items of cost were :—

LABOUR—

Farmer	2/4 per hour
Sons, over 20	2/3 „ „
„ 19–20	1/11 „ „
„ 18–19	1/7 „ „
„ 17–18	1/4 „ „
„ 16–17	1/1 „ „
„ 15–16	11d. „ „
Wife	1/9 „ „
Daughters, over 21 ...	1/9 „ „
Daughters, 15–21	11d.–1/8 „ „

OTHER ITEMS—

Horse Work	1/4 per hour
Wheeled Tractor ...	3/7 „ „
Crawler Tractor ...	5/9 „ „
Dung, at steading	13/– to 17/– per ton
Home-produced Seed ...	75% of current market value.

For each crop costed, a charge was made to represent a share of farm " overhead " expenses. The rates used in charging this item were obtained from averages of " overhead " expenses on Scottish farms, and in the cost statements given, the total of " overheads " is made up of a composite charge of 13/3 per acre per annum, plus 6/- for each £1 of labour used on the crop, plus 5/6 for each " tractor-equivalent " hour. In the tables in the Appendix, the amount of " overhead " included in the crop costs is shown separately.

The final " Net Cost " per acre and per ton for each crop includes only the shares of dung, lime and manures considered to be exhausted by the 1949 cropping, the first cost of these items having been spread over the varying periods suggested in the leaflet, Miscellaneous Publication No. 7 (Residual Value of Feeding Stuffs and Fertilisers) of the Department of Agriculture.

With all the crops other than grass silage, the adjustments for manurial residues from previous crops and to future crops are shown separately as additions to and deductions from " Gross Cost," while with the grass silage these additions and deductions were made in the course of the calculations, and manurial charges are the shares directly applicable to the 1949 crop.

The costs stated exclude any additions for " cleaning costs " (" beneficial cultivations ") brought forward from greencrops taken earlier in the rotation and, similarly, no deduction was made for this item in the costing of the greencrops themselves. For crops taken out of lea a sum was brought into the cost structure to represent a rough assessment of the turf value brought forward. In the Appendix tables it is included with lime and manure residues.

Both the grass silage and arable silage costings contain items special to these crops. In addition to the depreciation on normal farm implements—a share of which reaches the crop via the " overhead " charge—any special field machinery or special chaffing equipment was given a working life, and the annual depreciation allocated to silage on either an hourly or an acreage basis. Likewise any special fuel or power requirements of such equipment, other than tractor or horse work, was accounted for. In all cases where it was possible to estimate an annual charge for the capital costs of trench or vertical silos, this was brought into account.

Some special costing features arose with the grass-silage crop. The sequence of the uses of the grassland area between one autumn and the following autumn varied considerably, e.g., autumn and winter grazing, then one or more silage cuts, followed by grazing, or, as another example, a silage crop taken from hay aftermath. In some cases the autumn and winter grazing was negligible or absent.

The sharing of annual costs between such varying uses was difficult to carry out with any degree of precision, but the following proportions were used as the basis for most of the allocations :—

1st October to 31st March, inclusive ...	One-eighth.
1st April to 31st July, inclusive	Five-eighths.
1st August to 30th September, inclusive ...	Two-eighths.

These were varied according to circumstances, and cost items relating to the annual use of the fields were so shared out.

The complete field cost of the grass silage crops was considered to be made up of three sections :—

(i) The share applicable to the 1949 crop year of the dung, lime and manures applied to previous crops, and, in addition, a share to 1949 of the original cost of sowing-out under grass seeds. The original " sow-out " cost was spread over the expected lea life (plus one year) or over 8 years, according to which of these periods was the shorter. These items were shared between all the 1949 uses of the field by proportions similar to those given in the preceding paragraph.

(ii) Costs incurred in 1949 and considered to be of value to all field uses in 1949, *i.e.*, not especially for silage. These included the share to 1949 of all dung, lime, and certain manures applied, of autumn and spring cultivations such as harrowing, rolling, manure-sowing, etc., all of the annual charge for farm " overheads " which are allocated on the " per acre " basis, and any " overheads " due on the " per £1 labour " or " per tractor-equivalent hour " basis. These items were again shared between the various field uses.

(iii) Costs incurred directly for the grass silage crop being costed. These included manures (with a residue carried forward if applicable), all the direct man, horse and tractor labour on silage, the charge for materials, special machinery and the share of the capital cost of the silo. In addition, this stage bore an appropriate share of the farm " overhead," for which the allocation basis is " per £1 of labour " and " per tractor-equivalent hour."

The taking of additional cuts of grass silage from part or all of the acreage originally used for a first-cut gave rise to certain difficulties in computing the " per acre " costs. In such cases the " per acre " calculations were made as follows :—

(i) On the original acreage used for a first-cut—(a) The share of dung, lime and manure residues brought forward from previous years, also the share of sow-out costs. (b) The items listed in the Appendix tables as being costs incurred in 1949 " for all uses of field." (c) Manures applied directly before the silage.

(ii) On the total acreage cut-over in successive cuts :—All cutting and subsequent costs incurred in field and at silo, including the appropriate overheads, the charges for special machinery and the annual charge for the silo.

The " mature " yields on which the " per ton " costs of both the arable silage and the grass silage were calculated are necessarily estimates, but, as the final assessment of yield was delayed until the crop was ready to feed, the figures used for " mature " yield are as accurate as could be obtained under the circumstances. Probably—and particularly in regard to wastage—the mature yields used are slightly over-stated, which would result in costs per ton ready to feed being slightly too low.

For the small samples of crops other than silage which are summarised, the above general statements of costing methods and charges also apply. In calculating the net cost of grain for the cereal and pulse crops a deduction was made from the Gross Cost to represent an approximate sum chargeable to the joint-product—straw. This deduction was at the rate of one-eighth for the oat crop, one-fifteenth for the mashlum crop, and about one-twenty-fifth for the bean crop.

All the average figures quoted, unless where otherwise stated, were obtained by averaging the individually calculated costs per acre and per ton for each crop. Thus, in the averages, each crop is given equal weight irrespective of size of field, yield obtained or of the several factors influencing the efficiency of growing and handling the crop.

TABLE I.

GRASS SILAGE CROP OF 1949.

AVERAGE COSTS PER ACRE AND PER TON—28 CROPS.

The cost records include 19 crops (relating to 240½ acres) from which only a single cut was taken, and also 9 crops (relating to 176½ acres) where part, or all, of the acreage was cut more than once during the season.

19 Single-Cut Crops—Mature Yield per Acre	5¼	Tons.
9 Multiple-Cut Crops—Mature Yield per Acre for season ...	4¾	Tons.
Mature Yield per Acre per cut ...	2¾	Tons.

	Averages Per Acre. £ s. d.	Averages Per Ton. £ s. d.
SHARE TO SILAGE OF CHARGES FROM PREVIOUS YEARS—		
Dung, Lime and Manure residues	1 4 8	0 4 10
Share of original sow-out cost	0 11 3	0 2 3
SHARE TO SILAGE OF CHARGES FOR ALL 1949 USES OF FIELD—		
Dung—Portion chargeable, 1949	1 11 11	0 5 9
Lime and Manure—Portion chargeable, 1949	0 11 4	0 2 5
Harrowing, Rolling, etc., in Spring	0 2 5	0 0 6
Rent—Portion to Silage	0 14 8	0 3 1
Share of Farm "Overhead Expenses" (a)	0 18 9	0 3 9
DIRECT CHARGES TO SILAGE—		
Manures (net) applied before silage	0 19 8	0 3 6
Man, Horse and Tractor Work from Manuring to Covering	3 5 10	0 17 4
Share of Farm "Overhead Expenses" (b)	2 8 0	0 12 6
Materials: Molasses	0 9 2	0 2 3
Salt	0 2 4	0 0 9
Covering Materials	0 1 5	0 0 3
Depreciation: Special Field Implements	0 4 7	0 1 3
Special Chaffing Implements	—	—
Annual Charge for Silo	0 6 4	0 1 8
Fuel and Power—Special Implements	—	—
NET COST	£13 12 4	£3 2 1

(a) Consists almost entirely of the share of "overheads" allocated on an acreage basis, the small remainder being those allocated in proportion to the man, horse and tractor work used in the spring cultivations.

(b) Consists of "overheads" allocated on the basis of man, horse and tractor work used in operations in the field and at the silo.

LABOUR AND POWER USE IN FIELD AND AT SILO.

	Per Acre.	Per Ton.
Man Hours	18.2	4.8
Horse Hours	2.9	.8
Tractor Hours	6.5	1.6

TABLE 2.

GRASS SILAGE CROP OF 1949.

SEPARATION OF AVERAGE COSTS FOR SINGLE AND MULTIPLE CUT CROPS.

	Single Cut Crops.	Multiple Cut Crops.
Number of Cost Records	19	9
Growing area costed	240½ acres.	176½ acres.
Acreage cut over	240½ acres.	302 acres.
Mature yield per acre from growing area	5¼ tons.	4¾ tons.
Mature yield per acre obtained per cut	5¼ tons.	2¾ tons.

	Averages Per Acre.		Averages Per Ton.	
	Single Cuts.	Multiple Cuts.	Single Cuts.	Multiple Cuts.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
SHARES FROM PREVIOUS YEARS—				
Dung, Lime and Manures ...	1 2 11	1 8 4	0 4 5	0 5 8
Sow-out costs	0 10 8	0 12 7	0 2 1	0 2 9
SHARES TO SILAGE OF 1949 EXPENSES—				
Dung	1 14 10	1 5 10	0 6 3	0 4 9
Lime and Manures	0 8 9	0 16 10	0 1 10	0 3 8
Spring Cultivations	0 2 10	0 1 5	0 0 8	0 0 3
Rent	0 13 6	0 17 0	0 2 9	0 3 7
Overheads	0 17 7	1 1 5	0 3 7	0 4 2
DIRECT SILAGE CHARGES—				
Manures	0 14 11	1 9 8	0 2 9	0 5 1
Work—Field and Silo ...	3 9 2	2 18 7	0 14 11	1 2 1
Overheads	2 10 0	2 3 11	0 10 9	0 16 3
Materials : Molasses	0 11 9	0 3 9	0 2 8	0 1 4
Salt	0 2 6	0 2 1	0 0 7	0 1 0
Covering	0 2 1	—	0 0 5	—
Depreciation : Field Implements	0 4 8	0 4 3	0 1 2	0 1 5
Chaffing Implements	—	—	—	—
Charge for Silo	0 7 2	0 4 8	0 1 9	0 1 8
Fuel and Power	—	—	—	—
NET COST	£13 13 4	£13 10 4	£2 16 7	£3 13 8

The above descriptive side-headings, condensed for this table, are more fully defined in Table 1.

LABOUR AND POWER USE IN FIELD AND AT SILO.

	Averages Per Acre.		Averages Per Ton.	
	Single Cuts.	Multiple Cuts.	Single Cuts.	Multiple Cuts.
Man Hours	19.3	15.7	4.2	6.0
Horse Hours ...	2.6	3.6	.6	1.4
Tractor Hours ...	6.6	6.1	1.4	1.8

TABLE 3.

ARABLE SILAGE CROP OF 1949.

AVERAGE COST PER ACRE AND PER TON—11 CROPS.

Number of Cost Records	11
Total Acreage Costed	88½ Acres.
Average Yield of Mature Silage per Acre	7½ Tons.

	Averages Per Acre.			Averages Per Ton.
	Crops Using	Average on 11 Crops.	£ s. d.	£ s. d.
Dung (Tons)	3	4½	2 14 7	
Lime (Cwts.)	2	22	1 6 5	
Slag (Cwts.)	—	—	—	
Min. Phos. (Cwts.)	—	—	—	
Rotational Manures (Cwts.)	10	4½	2 8 6	
Work—Ready to Sow	—	—	2 11 5	
Seeds—Home (Cwts.)	1	¼	0 3 0	
Seeds—Purchased (Cwts.)	11	2	4 9 10	
Work—Sowing			0 14 7	
Materials to this stage	...	... ...	0 0 1	
Crop in Ground	...	... ...	£14 8 5	
Work—Cut and Fill	...	... ...	4 4 11	
Materials: Harvesting	...	... ...	0 2 5	
Molasses	...	... ...	0 8 6	
Covering	...	... ...	0 0 3	
Depreciation: Special Field Implements ...	...	... ...	0 1 11	
Special Chaffing Implements	...	... ...	0 6 2	
Annual Charge for Silo	...	... ...	0 16 2	
Fuel and Power—Special Implements ...	...	... ...	0 0 3	
			£20 9 0	£2 15 11
Rent	...	... ...	1 3 11	0 3 3
Share of Farm "Overhead Expenses" ...	...	... ...	6 13 4	0 18 7
Gross Cost			£28 6 3	£3 17 9
Adjust for Residues, etc.:—				
Add from previous crops—				
Dung residues	...	... ...	0 12 5	0 2 0
Lime and Manure residues ...	...	... ...	1 18 6	0 5 8
			£30 17 2	£4 5 5
Deduct to following crops:—				
Dung residues	...	... ...	1 11 4	0 4 5
Lime and Manure residues ...	...	... ...	2 17 11	0 8 6
Net Cost			£26 7 11	£3 12 6

LABOUR AND POWER USE IN FIELD AND AT SILO.

	Man Hours.	Horse Hours.	Tractor Hours.
Per Acre: Pre-Sowing ...	11.1	3.9	5.5
Sowing	3.5	.5	1.9
Cut and Fill ...	23.5	3.3	7.5
Total	38.1	7.7	14.9
Per Ton. Total	5.1	1.0	2.0

TABLE 4.

OAT CROP OF 1949.

AVERAGE COSTS PER ACRE AND PER TON—15 CROPS.

Number of Cost Records	15	
Total Acreage Costed	101½	Acres.
Average Yield per Acre: Grain	21½	Cwts.
Straw	19½	Cwts.

	Averages Per Acre. Crops Using	Average on 15 Crops.	£ s. d.	Averages Per Ton. £ s. d.
Dung (Tons)	—	—	—	
Lime (Cwts.)	1	2¾	0 6 9	
Slag (Cwts.)	—	—	—	
Min. Phos. (Cwts.)	—	—	—	
Rotational Manures (Cwts.)	12	2½	1 7 6	
Work—Ready to Sow		—	2 10 6	
Seeds—Home-Grown (Cwts.)		1	1 1 1	
Seeds—Purchased (Cwts.)		1⅓	1 17 2	
Work—Sowing			0 16 10	
Materials to this stage			0 0 6	
Crop in Ground			£8 0 4	
Work—Summer			—	
Work—Harvesting			3 4 7	
Work—Threshing			2 0 8	
Materials for these stages			0 18 0	
			£14 3 7	£12 16 2
Rent			1 9 4	1 7 11
Share of Farm "Overhead Expenses"			4 13 10	4 11 0
Gross Cost—Threshed			£20 6 9	£18 15 1
Adjust for Residues, etc.:—				
Add from previous crops—				
Dung residues			2 1 2	2 0 9
Lime and manure residues			2 7 11	2 5 5
			£24 15 10	£23 1 3
Deduct to following crops—				
Dung residues			1 2 6	1 2 4
Lime and manure residues			1 13 9	1 10 8
			£21 19 7	£20 8 3
Deduct for Straw			2 13 8	2 11 5
Net Cost of Grain			£19 5 11	£17 16 10

LABOUR AND POWER USE.

		Man Hours.	Horse Hours.	Tractor Hours.
Per Acre:	Pre-Sowing ...	9.9	14.0	2.4
	Sowing	4.3	4.0	.5
	Harvesting ...	17.6	2.0	2.3
	Threshing ...	12.8	.8	1.6
Total	... ...	44.6	20.8	6.8
Per Ton.	Total	41.5	19.3	6.3

TABLE 5.

MASHLUM CROP OF 1949.

AVERAGE COSTS PER ACRE AND PER TON—6 CROPS.

Number of Cost Records	6	
Total Acreage Costed	46	Acres.
Average Yield per Acre: Grain	21¾	Cwts.
Straw	21	Cwts.

	Averages Per Acre. Crops Using	Average on 6 Crops.	£ s. d.	Averages Per Ton. £ s. d.
Dung (Tons)	1	2	1 5 11	
Lime (Cwts.)	—	—	—	
Slag (Cwts.)	—	—	—	
Min. Phos. (Cwts.)	—	—	—	
Rotational Manures (Cwts.)	4	2	1 5 2	
Work—Ready to Sow	...	... —	2 7 2	
Seeds—Beans (Cwts.)	...	1½	2 19 4	
Seeds—Oats (Cwts.)	...	1¾	2 7 1	
Work—Sowing	...	... ...	0 12 8	
Materials to this stage	...	... ...	0 0 4	
Crop in Ground	...	... ...	£10 17 8	
Work—Summer	...	... ...	0 0 5	
Work—Harvesting	...	... ...	2 8 1	
Work—Threshing	...	... ...	1 19 10	
Materials for these stages	...	... ...	0 13 4	
			£15 19 4	£14 12 2
Rent	...	... ...	1 13 11	1 10 7
Share of Farm "Overhead Expenses" ...	...	... ...	4 2 6	3 15 1
Gross Cost—Threshed	...	... ...	£21 15 9	£19 17 10
Adjust for Residues, etc.:—				
Add from previous crops—				
Dung residues	...	... ...	0 2 9	0 2 2
Lime and Manure residues	...	... ...	3 16 11	3 9 7
Gross Cost	...	... ...	£25 15 5	£23 9 7
Deduct to following crops—				
Dung residues	...	... ...	0 13 0	0 12 2
Lime and Manure residues	...	... ...	2 2 10	1 19 4
			£22 19 7	£20 18 1
Deduct for Straw	...	... ...	1 12 1	1 9 4
Net Cost of Grain	...	... ...	£21 7 6	£19 8 9

TABLE 6.

BEAN CROP OF 1949.

AVERAGE COSTS PER ACRE AND PER TON—6 CROPS.

Number of Cost Records		6
Total Acreage Costed		28 Acres.
Average Yield per Acre:	Grain	23 Cwts.
	Straw	14 Cwts.

	Averages Per Acre. Crops Using	Average on 6 Crops.	£ s. d.	Averages Per Ton. £ s. d.
Dung (Tons)	4	9½	8 2 8	
Lime (Cwts.)	1	6½	0 10 0	
Slag (Cwts.)	—	—	—	
Min. Phos. (Cwts.)	—	—	—	
Rotational Manures (Cwts.)...	4	2½	1 6 5	
Work—Ready to Sow		—	5 13 11	
Seeds—Home-Grown (Cwts.)		2½	3 15 2	
Seeds—Purchased (Cwts.)		⅓	0 14 2	
Work—Sowing		...	1 3 6	
Materials to this stage		...	—	
Crop in Ground		...	£21 5 10	
Work—Summer		...	0 5 8	
Work—Harvesting		...	2 5 5	
Work—Threshing		...	2 13 6	
Materials for these stages		...	1 3 5	
			£28 13 10	£25 7 6
Rent		...	1 9 7	1 7 3
Share of Farm "Overhead Expenses"		...	5 10 9	5 6 4
			£35 14 2	£32 1 1
Adjust for Residues, etc.:—				
Add from previous crops—				
Dung residues		...	1 13 7	1 9 11
Lime and Manure residues		...	2 19 11	2 12 10
Gross Cost		...	£40 7 8	£36 3 10
Deduct to following crops—				
Dung residues		...	4 15 6	3 17 11
Lime and Manure residues		...	2 13 10	2 9 3
			£32 18 4	£29 16 8
Deduct for Straw		...	1 6 7	1 4 1
Net Cost of Grain		...	£31 11 9	£28 12 7

TABLE 7.

TURNIP AND SWEDE CROP OF 1949.

AVERAGE COST PER ACRE AND PER TON—7 CROPS.

Number of Cost Records	7	
Total Acreage Costed	22½	Acres.
Average Yield per Acre	18¾	Tons.

	Averages Per Acre.			Averages Per Ton.
	Crops Using	Average on 7 Crops.	£ s. d.	£ s. d.
Dung (Tons)	5	13	8 15 11	
Lime (Cwts.)	1	7	0 9 1	
Slag (Cwts.)	3	8	1 5 2	
Min. Phos. (Cwts.)	—	—	—	
Rotational Manures (Cwts.)	7	8¾	4 16 10	
Work—Ready to Sow		—	7 9 8	
Seeds—Purchased (lbs.)		4	0 12 8	
Work—Sowing		...	1 12 1	
Materials to this stage		...	—	
Crop in Ground		...	£25 1 5	
Work—Summer		...	5 12 3	
Work—Shaw and In		...	7 7 0	
Materials for these stages		...	0 6 8	
			£38 7 4	£2 5 8
Rent		...	1 4 8	0 1 4
Share of Farm "Overhead Expenses"		...	11 17 2	0 14 4
Gross Cost		...	£51 9 2	£3 1 4
Adjust for Residues, etc. :—				
Add from previous crops—				
Dung residues		...	0 19 5	0 0 9
Lime and Manure residues		...	1 17 1	0 1 10
			£54 5 8	£3 3 11
Deduct to following crops—				
Dung residues		...	4 17 8	0 5 11
Lime and Manure residues		...	4 6 4	0 4 10
Net Cost—Ready to Feed		...	£45 1 8	£2 13 2