Oats Cost of Production

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THE WEST OF SCOTLAND AGRICULTURAL COLLEGE.
ECONOMICS DEPARTMENT

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Crop 1950. Oat and Grass Silage Costs

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THE WEST OF SCOTLAND AGRICULTURAL COLLEGE
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CROP 1950: OAT and GRASS SILAGE COSTS

The sample of crop costings obtained for the crop of 1950 from farms in the South-West of Scotland was, for several reasons, considerably smaller than in previous years and in the case of certain crops the numbers available for grouping were too small to yield representative averages.

For the oat crop and grass silage crop, however, the individual crop costings available numbered 14 and 8 respectively and this statement gives summarised averages for these crops.

The oat crop averages, based on the 99 acres costed and an average yield of 23 cwts of grain and about 20 cwts of straw per acre, showed an average net cost of £19. 3/- per acre or £18. 3/- per ton. These costs relate to a cropping season which contained the particularly inclement and unfavourable harvest weather of 1950. The itemised costs are shown in Table 1.

For the grass-silage crop, the averages are based on 8 crops over a costed acreage of 160 acres, giving an estimated mature yield of $4\frac{3}{4}$ tons per acre. The average cost "per mature ton" was £2.17/-. The itemised costs are shown in Table 2.

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COSTING METHODS AND CHARGES:-

The methods adopted in the costing of crops has been given in detail in previous reports, but as some of the charges made in 1950 differ from those in earlier years, a summary is:-

Horse Work (excluding horseman)	1/3d per hour
Wheeled Tractor (excluding tractorman).	3/9d " "
Track-laying Tractor (" ").	6/0d " "
Manual Work by Farmer	2/6d " "

The charge made for "Overheads" against each crop was applied as follows:-

For each acre costed	14/6d
For each £ of labour used on the crop	6/9d
For each "tractor-hour-equivalent"	5/6d

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TABLE 1.

OAT CROP OF 1950

AVERAGE COSTS PER ACRE AND PER TON

14 CROPS THRESHED OUT

Number of Cost Records 14
Acreage costed 99
Average yield per acre. Grain . . . . . 23 cwts.
Straw . . . . . 20 "

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	No.of Crops Using	Averages PER ACRE: Average Weight on 14 Crops	£. S. D.	Averages PER TON: £. S. D.
Dung (Tons)	-	-	-	
Lime (Cwts)	1	3.0	-. 3. 9.	
Slag (Cwts)	-	-	-	
G. Min. Phos. (Cwts)	-	-	-	
Rotational Manures:-				
Phosphatic	2	.4	-. 2. 8.	
Potassic	-	-	-	
Compounds	9	2.3	1. 3. 8.	
Nitrogenous	1	.1	-. -. 9.	
Work. Ready to Sow		-	2. 3.11.	
Seed Home-Grown (Cwts)		.3	-. 7.11.	
Seed Purchased (Cwts)		1.9	2. 14. 5.	
Work. Sowing			-. 15. 6.	
Materials to this stage.			-. -. 3.	
CROP IN GROUND			7. 12.10.	7. 5. 9.
Work. Summer			-. -. 1.	-. -. 1.
Work. Harvesting			3. 1. 8.	2. 18. 9.
Materials for these stages			-. 18. 6.	-. 15. 10.
Work. Threshing			2. 6. 6.	2. 1. 11.
Threshing: Materials and Other Costs			-. 9. 5.	-. 7. 11.
			14. 9. 0.	13. 10. 3.
Rent			1. 9. 8.	1. 7. 4.
Share of Farm "Overhead Expenses"			4. 18. 8.	4. 18. 1.
GROSS COST - THRESHED			20. 17. 4.	19. 15. 8.
Adjust for Residues, etc.				
Add from previous crops				
Dung residues			-. 15. 4.	-. 11. 10.
Lime do.			-. 13. 0.	-. 10. 9.
Phosphatic do.			-. 1. 2.	-. 1. 0.
Potassic do.			-. 1. 4.	-. 1. 3.
Compounds do.			-. 8. 3.	-. 6. 6.
Turf value from lea			-. 9. 7.	-. 9. 11.
Dung and lime applications			-. 7. 7.	-. 5. 10.
			2. 16. 3.	2. 7. 1.
Less to future crops				
Dung residues			-. 4.11.	-. 3. 4.
Lime do.			-. 13. 4.	-. 10. 4.
Phosphatic do.			-. 1.11.	-. 1. 6.
Potassic do.			-. -. 6.	-. -. 6.
Compounds do.			-. 11. 8.	-. 10. 3.
Dung and lime applications			-. 3. 3.	-. 2. 3.
			1. 15. 7.	1. 8. 2.
Deduct for Straw			2. 15. 2.	2. 12. 0.
NET COST OF GRAIN			£19. 2.10.	£18. 2. 7.

TABLE 2.

GRASS SILAGE CROP OF 1950.

AVERAGE COSTS FOR 8 "SINGLE-CUT" CROPS

Number of Cost Records 8
Growing area costed . . . . . 160 acres
Acreage cut over . . . . . 160 "
Estimated mature yield per acre . . . . . 4¾ tons

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The term "Share" indicates a sharing to the grass silage crop of certain costs likely to benefit all 1950 uses of the fields on which the silage was grown. The term "Direct" indicates costs incurred directly and mainly for the grass silage crop.

	Average Costs Per Acre £. S. D.	Per Ton £. S. D.
Labour and Power.		
Share. Grassland cultivations; dung, lime and manure applications, etc.	-. 8. 5.	-. 1. 9.
Direct. Pre-cutting	-. -. 9.	-. -. 2.
Direct. Cutting and Filling	2. 17. 0.	-. 12. 7.
	3. 6. 2.	-. 14. 6.
Plus. Brought-forward of dung and lime application costs in previous years	-. 6. 3.	-. 1. 7.
	3. 12. 5.	-. 16. 1.
Less. Cary Forward of dung and lime application costs to future years	-. 5. 7.	-. 1. 4.
Total Labour and Power	£3. 6. 10.	£-. 14. 9.
Manures		
Share. 1950 Dung, Lime and Fertilisers	3. 1. 11.	-. 13. 11.
Direct. Special Silage manuring	-. 4. 6.	-. -. 10.
	3. 6. 5.	-. 14. 9.
Plus. Brought-forward of Dung, Lime and Fertiliser Values from previous crops	2. 7. 7.	-. 11. 3.
	5. 14. 0.	1. 6. 0.
Less. Carry-forward of Dung, Lime and Fertiliser Values to future crops	2. 4. 11.	-. 10. 4.
Net Manuring	£3. 9. 1.	£-. 15. 8.
Depreciation, Materials, etc.		
Deprec. and power on cutlifts, choppers, etc.	-. 11. 9.	-. 2. 6.
Annual charge for Silo.	-. 7. 0.	-. 1. 7.
Molasses	-. 7. 3.	-. 1. 8.
Salt	-. -. 3.	-. -. 1.
Covering Material for Silo.	-. 1. 5.	-. -. 6.
Deprec. and Materials	£1. 7. 8.	£-. 6. 4.
Rent Share	£-. 17. 9.	£-. 4. 2.
Annual Charge for Sow-Out Costs	£-. 8. 8.	£-. 2. 0.
Overheads		
Per £ of Labour		
Share. Grassland cultivations, etc.	-. 1. 5.	-. -. 3.
Direct. Pre-cutting	-. -. 3.	-. -. ½
Direct. Cutting and filling	-. 10. 6.	-. 2. 3.
Per Tractor-Equivalent Hour		
Share. Grassland cultivations, etc.	-. 6. 4.	-. 1. 4.
Direct. Pre-cutting	-. -. 4.	-. -. ½
Direct. Cutting and filling	1. 18. 1.	-. 8. 6.
Per Acre		
Share	-. 9. 1.	-. 2. 0.
Total Overheads	£3. 6. 0.	£-. 14. 5.
Total	£12. 16. 0.	£2. 17. 4.

TABLE 3.

LABOUR AND POWER USE

AVERAGE LABOUR AND POWER USE - 14 OAT CROPS

	In Hours	
Man Work	Per Acre	Per Ton
Machine attendants on contract work	1½	1¼
Casual workers	2½	2¼
Neighbours assisting	4	3½
Farm staff : Hired and family	35½	31
	43½	38
Horse Work		
On contract work	Neg.	Neg.
Farm horses	14½	12¾
	14½	12¾
Tractor Work		
On contract work	¾	¾
Farm tractors	7½	6¾
	8¼	7½
Farm Lorry	-	-
Special Machine Hours - Threshing Mills, etc.	¾	½

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AVERAGE LABOUR AND POWER USE - 8 GRASS SILAGE CROPS
LABOUR AND POWER USE IN FIELD AND AT SILO

	Per Acre	Per Ton
Man Hours	13.9	3.0
Horse Hours	.4	.1
Tractor Hours	6.9	1.5

These figures of hours relate only to direct silage work. Labour and power use in grassland cultivations and applying dung, lime, manures for all uses of field has been omitted.