



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

*Sugar beets -
Cost of
production*

May, 1947.

Farmers' Report No. 70

SUGAR BEET

COSTS AND RETURNS:

1946

UNIVERSITY OF LEEDS
Department of Agriculture: Economics Section

SUGAR BEET COSTS AND RETURNS:
1946

This report is the third of a series dealing with the cost and profits of growing Sugar Beet in Yorkshire and presents in summary the results for the 1944, 1945 and 1946 crops. The results for the 1946 crop are dealt with in somewhat greater detail.

1944 was a poor year for sugar beet. The small amount of sunshine experienced during the growing season and the wet autumn resulted in low yields and a low average sugar content. The average profit per ton of beet was only 13s.1d. on the farms studied, and many farmers suffered actual losses. The following year (1945), however, was a very good beet year. Tonnage was up, sugar content rose and with all the costed farms on the right side of the balance the average profit was as much as £1.14.5 per ton. 1946 will live in the farmers' memory for a long time as a bad year. There was little of the sunshine so essential to sugar formation, and the average sugar content of the beet costed fell to 15.1 per cent. This was 1.1 per cent less than the 1945 figure and 0.6 per cent below the recognisedly bad figure for 1944. Since a 0.1 per cent difference in sugar content means a difference of 4d. in the contract price for beet, this was serious. Fortunately yields, though lower than in 1945 by one ton to the acre, were still nearly two tons up on 1944 and all farmers found their crop profitable. The average profit per ton in 1946 was £1.9.6

Table I shows the average production costs per acre for the three years.

Increases in cost over the three years reflect principally the general increase in wage levels, and especially in the cost of casual labour. The harvesting figures also reflect the very difficult conditions under which this last year's crop was lifted. Tare was up to 16 per cent of the crop as opposed to 12 per cent in 1945.

The greatly increased figure for farmyard manure is explained by the fact that a greater percentage of farmers used this manure. It was applied by 15 out of the 20 farmers as opposed to 13 out of the 24 last year. A total of 1,644 tons were applied at an estimated cost of 10s. per ton in the yard.

On the whole, the beet crop is heavily manured. The average expenditure in 1946 was £6.7.6 per acre. This figure is obtained by taking the total expenditure on manures, deducting the unexhausted value, and adding the value of unexhausted residues from the previous crop. During the last year studied, the method used for arriving at unexhausted manurial values has been that laid down in the July, 1946, issue of "Agriculture."

T A B L E I

COSTS OF PRODUCTION OF SUGAR BEET PER ACRE IN YORKSHIRE

X

	1944	1945	1946	Your Farm
	27 Farms	24 Farms	20 Farms	1946
	£ s d	£ s d	£ s d	£ s d
Applying Farmyard Manure	16 7	18 3	1 7 5	
Ploughing	1 - 5	17 8	16 8	
Cultivating	1 5 2	16 7	18 7	
Applying Fertilisers	14 8	11 3	10 4	
Drilling Seed	3 10	4 4	4 1	
Inter-row cultivations	1 - -	1 10 6	1 2 5	
Hand Hoeing	4 15 6	5 6 4	5 15 8	
<u>Total Cultivations</u>	£ 9 16 2	10 4 9	10 15 2	
Ploughing Out	9 8	13 4	13 9	
Pulling, Knocking and Topping	5 10 6	5 7 2	6 2 5	
Carting and Loading	2 18 6	2 2 2	2 17 7	
Transport	3 13 5	4 12 8	4 14 10	
<u>Total Harvesting</u>	£ 12 12 1	12 15 4	14 8 7	
Net Manures	7 2 3	7 - 7	6 7 6	
Seed	16 -	14 10	14 6	
Rent	1 5 -	1 6 10	1 9 6	
Overheads	2 7 6	2 11 10	2 10 -	
<u>Total Costs</u>	£ 33 19 -	34 14 2	36 5 3	
<u>Less</u>				
Value of Tops and Cleaning Value	2 12 6	2 18 2	3 2 2	
<u>Net Cost</u>	£ 31 6 6	31 16 -	33 3 1	
<u>Acres Grown</u>	352	296 $\frac{3}{4}$	237 $\frac{1}{2}$	

X Although the number of farms farming the sample was not the same in each of the three years, the 20 farms represented in 1946 were all part of the sample in 1944 and 1945.

The cleaning effect of the beet crop has been credited at an average of £1.8.10 per acre: this figure representing half the cost of ploughing, pre-sowing operations and inter-row cultivations. £1.13.4 per acre has been allowed for the value of beet tops. Whilst it is recognised that this value of 4s.2d. per ton does not reflect the actual value on any individual farm, the 1944 report adopted the principle that as sugar beet was a crop which farmers were directed to grow, only the residual manurial value of the tops should be charged. For purposes of comparison this principle has been maintained, even though in many cases the tops have been fed and would have a feeding value of £1.12.3 per ton.

T A B L E I I
COSTS PER TON OF CLEAN BEET
PRODUCED ON YORKSHIRE FARMS

	1944	1945	1946	Your Farm
	27 farms	24 farms	20 farms	1946
	£ s d	£ s d	£ s d	£ s d
Total Cultivations	1 2 -	17 11	1 - 4	
Total Harvesting	1 - -	14 3	18 5	
Haulage	8 3	8 -	8 9	
Rent and Overheads	8 2	6 10	7 6	
Manures	13 4	12 4	12 -	
Seed	1 10	1 3	1 4	
<u>Gross Cost</u>	3 13 7	3 1 9	3 8 4	
<u>Less Value tops and cleaning</u>	5 3	5 1	5 10	
<u>Net Cost</u>	3 8 4	2 16 8	3 2 6	

Table II summarises the costs shown in Table I, recalculated on the basis of a ton of clean beet.

Table III analyses the results to show the proportion of costs represented in 1946 by manual, horse and tractor work and other work associated with labour.

The total of £25.3.9 equals the total of cultivation and harvesting costs shown in Table I. It will be seen that manual labour accounted for approximately two-thirds (66.7 per cent) of the total costs of cultivations and harvesting. In 1944 the figure was 68.5 per cent and in 1945, 71 per cent.

T A B L E I I I
SOME PRIMARY COSTS PER ACRE OF SUGAR BEET,
YORKSHIRE, 1946

	Average 20 farms		
	£	s	d
Manual Work	16	16	4
Horse Work	1	17	11
Tractor Work	1	5	11
<u>Total Man, Horse and Tractor Work</u>	<u>£20</u>	<u>-</u>	<u>2</u>
Implement Wear and Tear	2	11	6
Transport (Ex. Farm Manual)	2	12	1
<u>Cultivations and Harvesting</u>	<u>£25</u>	<u>3</u>	<u>9</u>

Table IV shows the average returns and profits per acre for each of the three years. Whilst in 1944 sugar beet was grown at a loss on 10 farms in the sample, both the 1945 and 1946 harvests show profits on all farms. There was, however, one crop failure in each of the last two years, and the results from these farms have been ignored.

T A B L E IV

AVERAGE RETURN AND PROFIT ON THE
SUGAR BEET CROP IN YORKSHIRE

	1944	1945	1946	Your Farm
	27 farms	24 farms	20 farms	1946
	£ s d	£ s d	£ s d	£ s d
Value of Beet per acre	37 3 4	51 10 9	48 15 10	
Cost of Production per acre	31 6 6	31 16 -	33 3 1	
Profit per acre	£5 16 10	19 14 9	15 12 9	
Average percentage Sugar	15.7%	16.2%	15.1%	
Average percentage Tare	20.8%	12.4%	16.1%	
Average Yield of Clean Beet	8t.18c.1q.	11t.8c.2q.	10t.12c.1q.	

The following rates were charged for:-

	1944	1945	1946
Horse and Tractor Men	1/8d.	1/9d.	2/-d.
Other Men	1/6d.	1/6d.	1/10d.
Women and Lads	1/-d.	1/-d.	1/2d.
Horse Work	9d.	9d.	1/-d.
Tractor Work	2/6d.	2/6d.	2/6d.

Overtime was charged at the appropriate rates.

Manurial residues as per Voelcker and Hall, 1944 and 1945.
Ministry of Agriculture method, 1946.

1. The first part of the report is a general statement of the purpose of the study.

2. The second part of the report is a description of the methods used in the study.

3. The third part of the report is a description of the results of the study.

4. The fourth part of the report is a discussion of the results of the study.

5. The fifth part of the report is a conclusion of the study.

6. The sixth part of the report is a list of references.

7. The seventh part of the report is a list of appendices.

8. The eighth part of the report is a list of figures.

9. The ninth part of the report is a list of tables.

10. The tenth part of the report is a list of footnotes.