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Potatoes
Cost of
production O.S.

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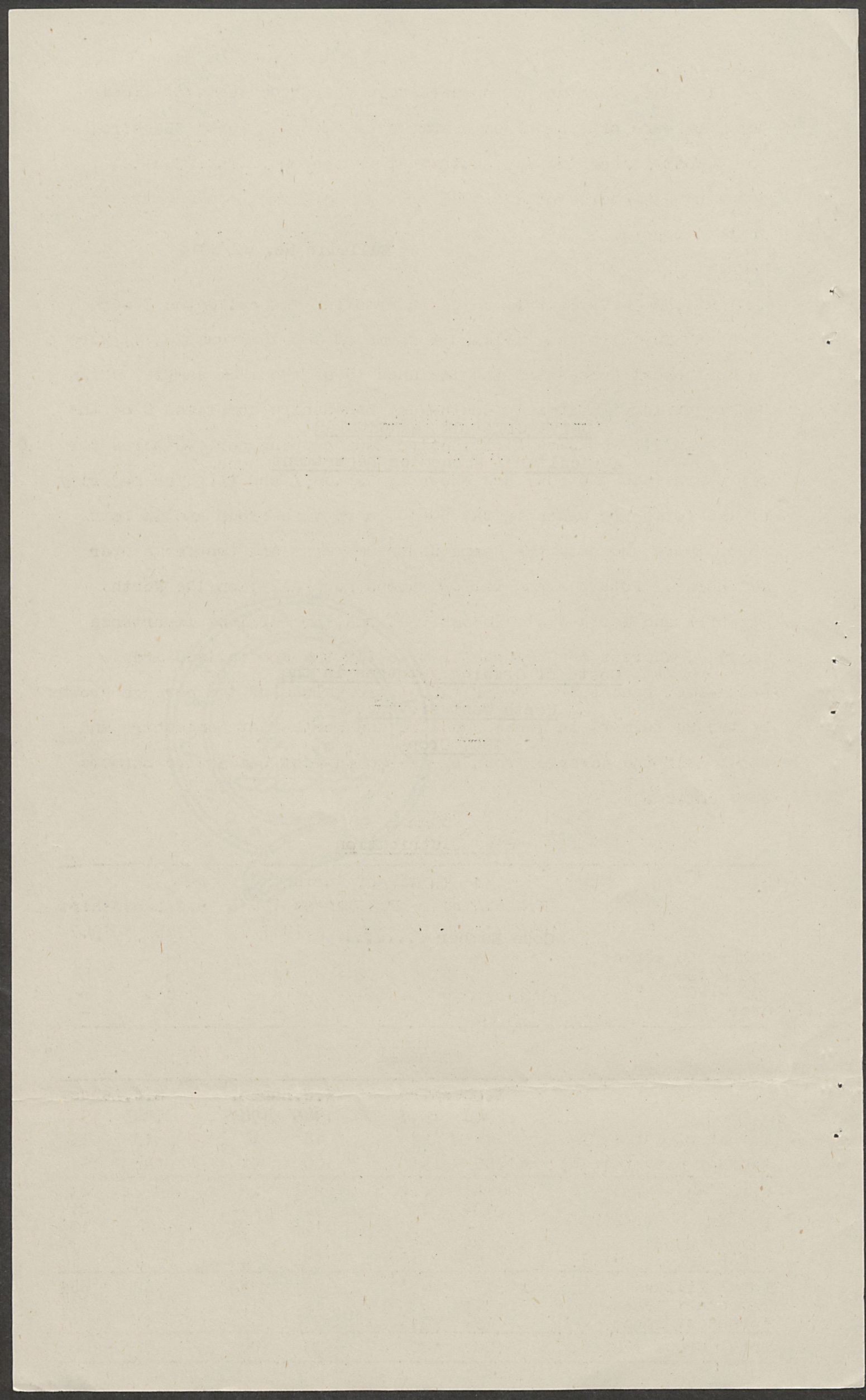
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UNIVERSITY OF MANCHESTER
Agricultural Economics Department

Costs of Growing Potatoes in the
North West Province
1947 Crop

Code Number

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In 1947, for the fifth successive year, the costs of growing potatoes were obtained from a sample of farms in North Cheshire, North-West Lancashire and South-West Lancashire. The results, covering $234\frac{1}{4}$ acres of the 1947 crop on 34 farms, are summarised in this report.

SAMPLE

Of the 34 farms from which information was collected 7 were in North Cheshire and included 6 farms of the 1946 sample, 17 were in North-West Lancashire and included 15 of the 1946 sample, while the remaining 10 farms in South-West Lancashire comprised 8 of the 1946 sample. The size distribution and cropping per 100 acres for the years 1946 and 1947 are shown in Tables I and II. The majority of the farms are again in the 50-100 acre size group and in both years there are only two farms under 50 acres and two farms over 200 acres. Potatoes and tillage crops generally, on the North Cheshire and North-West Lancashire farms, are of less importance in 1947, whereas the reverse is true for the specialised arable South-West Lancashire group. About two thirds of the acreage grown by the 24 farmers in North Cheshire and North-West Lancashire and about half the acreage grown by the South-West Lancashire farmers were costed.

TABLE I
Size Distribution

	No. of Farms					
	N.Cheshire		N.W.Lancashire		S.W.Lancashire	
	1946	1947	1946	1947	1946	1947
Under 50 acres	1	-	1	2	-	-
50 - 100 "	3	2	12	11	5	5
100 - 200 "	6	3	4	4	8	5
Over 200 "	1	2	1	-	-	-

TABLE II

	N.Cheshire		N.W.Lancs.		S.W.Lancs.	
	1946	1947	1946	1947	1946	1947
Number of Farms	11	7	18	17	13	10
Average Size (acres)	126	151	100	91	122	106
Oats	$16\frac{3}{4}$	$22\frac{1}{2}$	$23\frac{1}{2}$	25	$22\frac{1}{2}$	23
Wheat	$15\frac{1}{2}$	11	4	$1\frac{1}{4}$	16	21
Potatoes	$10\frac{1}{4}$	9	$10\frac{1}{2}$	$7\frac{1}{4}$	$17\frac{1}{2}$	$19\frac{1}{2}$
Kale & Roots	$2\frac{1}{2}$	3	4	5	2	$3\frac{1}{2}$
Other Crops	4	-	$1\frac{1}{2}$	$\frac{1}{4}$	4	$1\frac{1}{4}$
Total Tillage	49	$45\frac{1}{2}$	$43\frac{1}{2}$	$38\frac{3}{4}$	62	$68\frac{3}{4}$
Temporary Grass	$31\frac{1}{2}$	23	16	$15\frac{1}{4}$	21	$21\frac{1}{2}$
Permanent Grass	$19\frac{1}{2}$	$31\frac{1}{2}$	$40\frac{1}{2}$	46	17	$9\frac{3}{4}$
Total Crops & Grass	100	100	100	100	100	100

COSTS

In North Cheshire and North-West Lancashire where the varieties grown were largely early and second early with only a few main crop, all potatoes, with the exception of a small quantity on three farms, were sold straight off the field and no clamping costs were incurred. On the South-West Lancashire farms practically all the varieties grown were main crop and two thirds of the acreage costed was clamped. Costs are given up to the point of sale except where potatoes were clamped, in which case the costs of clamping are included but not the charges for dressing, bagging and clearing up the site of the clamp. The most popular early varieties in all three districts were Arran Pilot, Ulster Chieftain and Ninetyfold. Majestic and Arran Peak were the most important main crop varieties.

TABLE III
Costs Per Acre

	N.Cheshire 7 Farms 66 $\frac{3}{4}$ Acres	N.W.Lancs. 17 Farms 72 Acres	S.W.Lancs. 10 Farms 95 $\frac{1}{2}$ Acres	Your Farm
	£ s d	£ s d	£ s d	£ s d
Ploughing & Cultivating	2 6 11	2 8 10	2 2 9	
Manuring	3 6 4	2 15 1	2 5 10	
Planting, Sorting Seed	2 0 6	1 9 0	2 9 5	
After Cultivations	2 18 7	4 2 3	2 19 4	
Spraying	-	-	2	
Harvesting & Bagging	12 8 10	11 6 0	10 4 1	
Total Operations	23 1 2	22 1 2	20 1 7	
Manures: F.Y.M.	6 9 11	5 7 7	10 8 11	
Other	6 10 2	3 11 10	7 11 0	
	13 0 1	8 19 5	17 19 11	
Less Net Man. Res.	5 3 9	4 0 9	6 19 7	
Net Cost of Manures	7 16 4	4 18 8	11 0 4	
Seed	12 5 11	12 19 8	10 8 6	
Straw	1 3	1 2	5 8	
Boxes	10 9	3 9	11 2	
Spraying Materials	-	-	6	
Rent	2 8 7	2 1 6	2 5 4	
Overheads	4 12 5	4 4 7	4 9 3	
Total	50 16 5	46 10 6	49 2 4	
Yield Per Acre	8t.14cwt.	7t.0cwt.	8t.11cwt.	
Cost Per Ton	5 16 8	6 12 6	5 15 1	

Total costs per acre are higher than in 1946 for all groups but the costs of individual items show no general trend.

Labour costs which might be expected to be generally higher have risen in the North Cheshire and South-West Lancashire groups but have fallen slightly in North-West Lancashire. In the former two groups there have been small increases in the costs of planting and after-cultivations and larger increases in harvesting costs. In North Cheshire more work was done on a piece-work basis and in South-West Lancashire the costs of regular and casual workers were higher than in 1946. In North-West Lancashire the cost of after-cultivations has increased but is more than offset by a decrease in other operational costs, particularly the cost of harvesting. In this group more has been spent on regular labour and contract operations and less on piece-work than in 1946. Prime costs for all operations are given in Table IV.

In all three groups the net cost of manure is lower than in 1946. The decrease is greater in North-West Lancashire and applies to both the farmyard manure and artificials. In South-West Lancashire a substantial reduction in the quantity of farmyard manure used has been counterbalanced by the increased use of artificials. The high charge for farmyard manure to South-West Lancashire farmers is explained by the practice in that district of buying long manure at prices three to four times as high as that charged for manure produced on the farm.

The cost of seed is generally higher than last year but differences between the groups are not so marked. Changes in the proportion of once-grown seed and new seed planted have tended to counterbalance the different rates of seeding. The North Cheshire farmers who planted an average of 20 cwts. per acre used the highest proportion of once-grown seed. Farmers in the other two groups used principally new Scotch seed. The North-West Lancashire group planted 18 cwts. per acre compared with 16 cwts. per acre in South-West Lancashire and also used more of the dearer early varieties.

Sundry expenses reflect differences in the systems of potato growing. In the South-West Lancashire group where a considerable Proportion of the potatoes were clamped there is a higher charge for straw than in the other groups. Charges for depreciation of potato boxes indicate that boxing of seed was a more common practice in North Cheshire and South-West Lancashire. Spraying was carried out on only one of the farms costed.

Yields in the North Cheshire and North-West Lancashire groups were higher than in 1946 due to the later harvesting of early and second early varieties. In South-West Lancashire the yields show a drop as compared with 1946. This is probably the effect of the prolonged drought of the late summer and early autumn. It is also worth noting that the North-West Lancashire group which has shown the lowest net charge for manures in both 1946 and 1947 also has the lowest yields.

The additional costs of unclamping, dressing, bagging and clearing up the site of the clamp where they were incurred amounted to £2.7.8 /acre in North-West Lancashire or 8/2d. per ton and in South-West Lancashire to £3. 7. 1 per acre or 7/4d. per ton.

TABLE IV

	N.Cheshire			N.W.Lancs.			S.W.Lancs.			Your Farm		
	£	s	d	£	s	d	£	s	d	£	s	d
Manual Labour	11	8	0	11	18	5	14	3	0			
Horse Work	2	14	9	2	8	5	2	2	5			
Tractor Work	1	15	7	2	5	10	2	16	5			
Contract Services	-			2	1	0	-					
Piece Work	7	2	10	3	14	9	1	6	1			
Casual Labour	-			-			1	17	5			
Total	23	1	2	22	8	5	22	5	4			

Tables V and VI show the distribution of total cost per acre, yield per acre and cost per ton.

TABLE V

Range in Costs Per Acre

	Number of Farms with Costs Per Acre Between:-				
	35-40	40-45	45-50	50-55	55-60
N. Cheshire	-	2	-	4	1
N.W. Lancs.	2	2	6	5	2
S.W. Lancs.	-	2	3	5	-

TABLE VI

Yields & Costs Per Ton

Yield Per Acre Tons	No. of Farms	No. of Farms with Costs Per Ton Between:					
		£2-4	4-6	6-8	8-10	10-12	12-14
2-4	-	-	-	-	-	-	-
4-6	5	-	-	1	1	2	1
6-8	16	-	1	13	2	-	-
8-10	10	-	7	3	-	-	-
10-12	1	-	1	-	-	-	-
12-14	-	-	-	-	-	-	-
Over 14	1	1	-	-	-	-	-

NOTES ON COSTING METHODS

Labour: records of the time spent on each operation by men, horses and tractors were supplied by the farmers and the cost calculated by charging manual labour at prevailing rates, horses at a standard rate of 1/- per hour, and tractors at a standard rate of 3/- per hour. Contract work was taken at actual cost and included, in addition to the hire of equipment, the cost of any labour supplied.

F.Y.M.: the charge for manure produced on the holding was 10/- per ton exclusive of the cost of carting and spreading.

Seed: purchased seed was charged at cost price, including carriage, and home grown seed at £9 per ton.

Straw: straw used for clamping was charged at £3. 10. 0 per ton.

Manurial Residues and Cultivations: the costs of manuring were adjusted for residual values on the basis of the recommendations of the Committee appointed to examine the Tables of Manurial Residues. No allowances were made for grass and clover roots ploughed in, or for beneficial cultivations. In Table III Net Manurial Residues is the difference in value between the Manurial Residues in the ground before and after the growing of the potato crop. The cost of manures applied has to be adjusted by this figure to give the amount chargeable for manures against the potato crop.

Overhead Expenses: an amount equal to 10% of the cost of labour, seed, manures and rent was charged under this head to cover a proportion of the general upkeep charges on the farm, depreciation on implements and time lost through illness, holidays with pay and so on.

Yields: the yields quoted in the bulletin are weights of marketable ware.

