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Potatoes - Cost of Production

October, 1968.

Economic Report No. 95 (A)

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Supplement to Economic Report No. 95

Maincrop Potatoes - Seed and Ware

1967

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Acknowledgements

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Maincrop Potatoes - Seed and Ware - 1967 Crop

This supplement is based on the records for 47 seed crops and 42 crops grown for ware in the east of Scotland during 1967. The following table indicates where the farms were situated.

County	Angus	East Perth	Fife/Kinross	Lothians	Totals*
Seed crops	12	8	7	3	30
Ware crops	6	1	9	10	26

*8 farms grew both seed and ware crops

General

1967 proved to be a good growing season following a cold start in April and May. Planting was generally completed earlier than usual, most crops being in the ground by the first week in May. Blight was not a serious problem. Lifting was interrupted by broken weather but most crops were secured by early November. Harvesters were used to lift 24 of the crops costed.

Returns

In 1967, prices of ware potatoes were generally depressed, despite an extensive buying programme by the Potato Marketing Board. This situation was due principally to an oversupplied market arising from high average yields in association with an increased acreage of potatoes grown. Recent acreage trends are shown in the table below.

Potato Acreages - ^{G.B.}~~U.K.~~ ('000 acres)

	1964	1965	1966	1967	1968*
Earlies	148.1	132.2	112.7	104.6	119.7
Maincrop	519.0	516.8	473.0	508.5	488.7
Totals	667.1	649.0	585.7	613.1	608.4

*Provisional figures

Source-P.M.B.

The seed trade fared rather better on the whole. Prices generally were not particularly high, but good yields helped to improve output in many cases.

The results show the usual wide range in total output per acre, the average figure for the seed crops being £188 compared with a figure of £135 for the ware crops. Analysis of the sample on the basis of highest and lowest gross margins indicated a range in output from £257 to £125 per acre among the seed group, with individual results above and below these figures. A similar picture is shown for the ware sample where total output ranged from £192 to £70 per acre for the highest and lowest gross margin groups. Yield per acre was again the principal factor behind the range in returns.

Variable Costs

Seed costs were at their highest level for the past 3 years. Other variable costs continued to show an upward movement including wheat straw for pits which rose from £8 to £12-£14 per ton.

The average figures for casual labour, contract work and sundry expenses are not very helpful for budget work as they cover a wide range of situations.

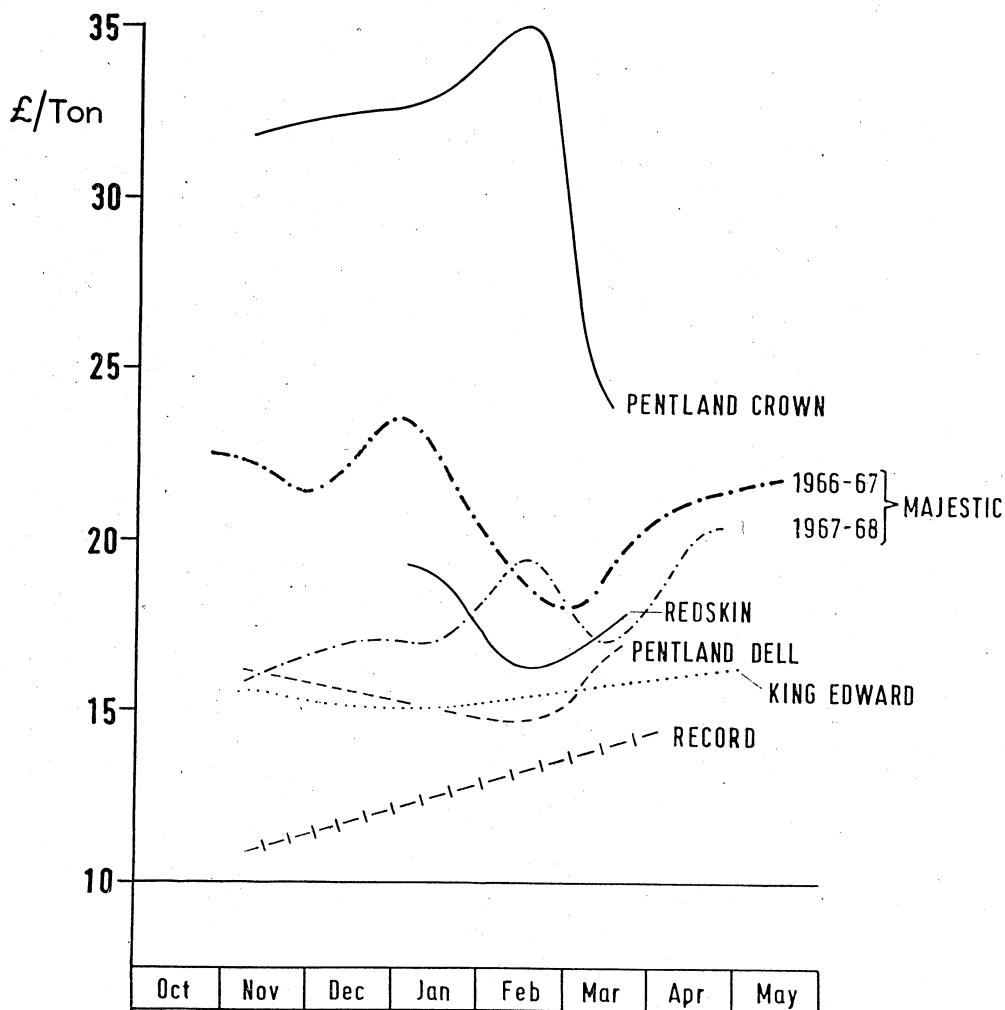
For example, there were 11 cases where the casual labour bill for lifting and dressing came to over £40 per acre. Typical costs for particular operations are given on page 10 and should be used in preference to the average figures when preparing budgets.

Gross Margins

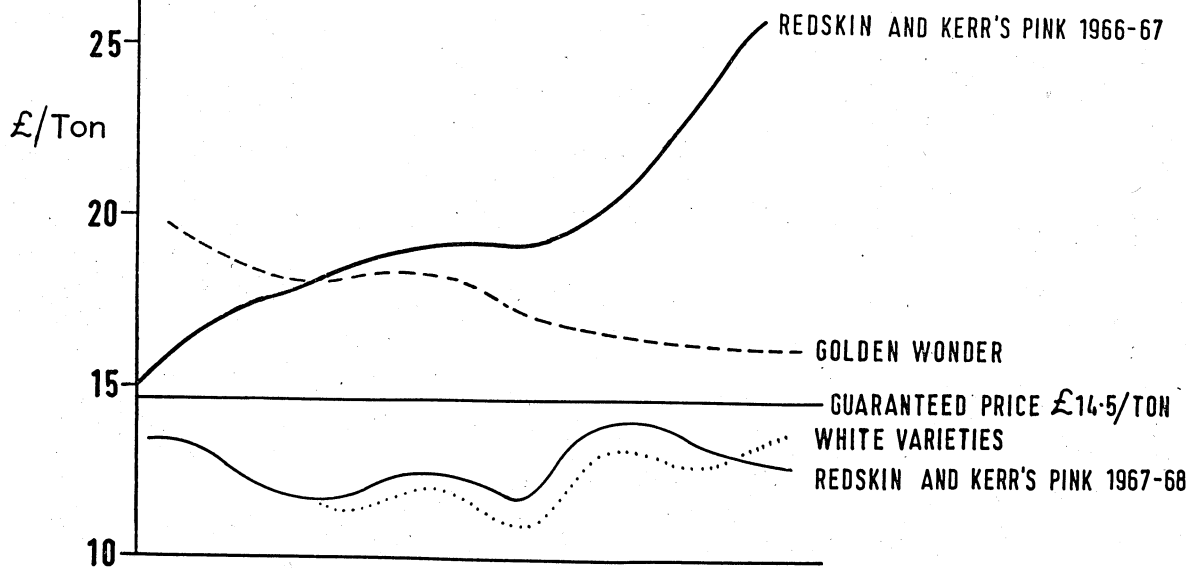
The average gross margin for the seed crops dropped to £99.6 per acre compared with the high figure of £141 achieved in 1966. The comparable figure for the ware crops was the lowest for the last three years, at £67.1 per acre. This result reflected the generally poor year for Redskin and Kerr's Pink, the varieties which are principally grown for the ware market in Scotland. (It is likely that a firmer trade can be expected in 1968 as the acreage of Redskin has fallen by 5177 to 20574 acres and Kerr's Pink by 2800 to 8777 acres).

1967-68 PRICES

SEED 'A' CERTIFICATE
APPROXIMATE TRENDS IN PRODUCERS PRICES
SOURCE - FARMING PRESS



WARE - APPROXIMATE TRENDS IN PRODUCERS PRICES
SOURCE - P.M.B.



Average Results per Acre - Seed Crops 1967

	12 highest*	Average	12 lowest*
<u>Output</u>	£	£	£
seed	177.7	109.9	59.9
ware	70.9	60.0	51.9
P.M.B.	6.3	15.5	10.3
brock	1.8	2.2	2.8
Total output	256.7	187.6	124.9
<u>Variable costs</u>			
seed	38.1	38.3	38.1
fertiliser	10.2	10.1	9.7
casual labour	24.7	27.1	28.7
contract	2.9	3.4	2.9
fuel excl. tractor	.3	.3	.2
sundry exps.	10.3	8.8	7.9
Total variable costs	86.5	88.0	87.5
Gross margin	170.2	99.6	37.4
<u>Average yields</u>	Tons	Tons	Tons
seed	7.8	5.7	3.7
ware	5.2	4.3	3.9
P.M.B.	.4	1.1	.7
brock	.9	1.0	1.2
Total yield	14.3	12.1	9.5
Average seed price/ton	£22.8	£19.3	£16.2
Average ware price/ton	£13.6	£14.0	£13.3
Average seed rate (cwt)	28.0c	28.3c	26.8c
Average seed cost/ton	£27.2	£27.0	£28.4
Average fertiliser rate (cwt)	9.2c	8.7c	8.4c
Units N	122	116	102
P ₂ O ₅	117	111	102
K ₂ O	171	160	157
Average dressing F.Y.M. (tons)	8.1T	10.0T	11.8T
Number of crops	12	47	12
Total acreage costed	169.5	551	143.5
Average acreage	14.1	11.7	12.0

*Selected on a gross margin basis.

Average Results per Acre - Seed Crops 1967

Variety	Majestic	K. Edward	Record
<u>Output</u>	£	£	£
seed	122.2	105.8	61.1
ware	44.5	93.2	80.7
P.M.B.	11.4	12.5	21.1
brock	3.1	2.4	1.0
Total output	181.2	213.9	163.9
<u>Variable costs</u>			
seed	30.9	29.7	30.5
fertiliser	10.1	10.1	11.0
casual labour	30.3	18.5	25.9
contract	2.1	4.2	4.9
fuel excl. tractor	.1	.4	.1
sundry exps.	8.8	8.9	8.0
Total variable costs	82.3	71.8	80.4
Gross margin	98.9	142.1	83.5
<u>Average yields</u>	Tons	Tons	Tons
seed	6.6	5.9	4.3
ware	3.5	6.4	5.6
P.M.B.	.8	.8	1.5
brock	1.2	1.4	.4
Total yield	12.1	14.5	11.8
Average seed price/ton	£18.5	£17.9	£14.2
Average ware price/ton	£12.7	£14.5	£14.4
Average seed rate (cwt)	28.7c	26.2c	25.8c
Average seed cost/ton	£21.5	£22.7	£23.6
Average fertiliser rate (cwt)	8.1c	8.9c	9.4c
Units			
N	110	126	137
P ₂ O ₅	106	126	117
K ₂ O	155	180	163
Average dressing F.Y.M. (tons)	9.5T	9.0T	10.9T
Number of crops	17	5	7
Total acreage costed	183	121.5	45
Average acreage	10.8	24.3	6.4

Average Results per Acre - Seed Crops 1967

	P. Dell	P. Crown	Redskin	H. Guard
<u>Output</u>	£	£	£	£
seed	88.6	214.5	53.1	220.3
ware	63.8	44.5	64.9	36.5
P.M.B.	31.3	14.5	12.1	-
brock	1.9	2.6	1.8	.9
Total output	185.6	276.1	131.9	257.7
<u>Variable costs</u>				
seed	58.2	68.8	29.7	44.0
fertiliser	9.4	10.2	10.0	9.8
casual labour	28.3	25.4	25.7	34.2
contract	4.1	4.5	4.9	-
fuel excl. tractor	.8	.3	.2	-
sundry exps.	9.1	10.0	8.7	7.5
Total variable costs	109.9	119.2	79.2	95.5
Gross margin	75.7	156.9	52.7	162.2
<u>Average yields</u>	Tons	Tons	Tons	Tons
seed	5.5	7.0	3.3	7.7
ware	4.5	3.4	4.5	3.2
P.M.B.	2.2	1.0	.8	-
brock	.9	1.0	1.0	.5
Total yield	13.1	12.4	9.6	11.4
Average seed price/ton	£16.1	£30.6	£16.1	£28.6
Average ware price/ton	£14.2	£13.1	£14.4	£11.4
Average seed rate (cwt)	32.6c	30.4c	22.5c	37.2c
Average seed cost/ton	£35.7	£45.2	£26.4	£23.6
Average fertiliser rate (cwt)	8.8c	9.7c	9.6c	7.5c
Units N	109	112	112	130
P ₂ O ₅	109	114	112	95
K ₂ O	165	178	156	115
Average dressing F.Y.M. (Tons)	11.6T	4.5T	13.7T	12.0T
Number of crops	7	4	4	2
Total acreage costed	82.5	26	80.5	10.5
Average acreage	11.8	6.5	20.1	5.3

Average Results per Acre - Ware Crops 1967

	10 highest*	Average	10 lowest*
<u>Output</u>	£	£	£
seed	10.0	9.6	7.5
ware	160.0	107.3	44.3
P.M.B.	19.8	15.6	15.8
brock	2.1	2.3	2.2
Total output	191.9	134.8	69.8
<u>Variable costs</u>			
seed	22.4	25.5	22.9
fertiliser	10.7	11.1	11.6
casual labour	17.0	19.3	17.6
contract	3.6	3.4	1.4
fuel excl. tractor	.2	.2	.1
sundry exps.	8.7	8.2	5.5
Total variable costs	62.6	67.7	59.1
Gross margin	129.3	67.1	10.7
<u>Average yields</u>	Tons	Tons	Tons
seed	.7	.7	.6
ware	11.2	7.4	3.0
P.M.B.	1.4	1.1	1.1
brock	1.0	1.1	1.1
Total yield	14.3	10.3	5.8
Average seed price/ton	£14.3	£13.7	£12.5
Average ware price/ton	£14.3	£14.5	£14.8
Average seed rate (cwt)	20.9c	20.9c	19.7c
Average seed cost/ton	£21.4	£24.4	£23.3
Average fertiliser rate (cwt)	9.4c	9.0c	9.5c
Units N	127	125	131
P ₂ O ₅	127	123	130
K ₂ O	194	178	189
Average dressing F.Y.M. (tons)	12.3T	11.6T	10.2T
Number of crops	10	42	10
Total acreage costed	163.5	494	72.5
Average acreage	16.3	11.7	7.2

*Selected on a gross margin basis

Average Results per Acre - Ware Crops 1967

	Redskin	K. Pink	G. Wonder
<u>Output</u>	£	£	£
seed	8.4	3.9	7.8
ware	79.1	88.9	126.2
P.M.B.	28.2	11.7	-
brock	3.2	1.4	1.7
Total output	118.9	105.9	135.7
<u>Variable costs</u>			
seed	25.4	18.4	25.2
fertiliser	11.2	11.4	11.4
casual labour	19.1	16.9	19.5
contract	3.2	1.5	1.0
fuel excl. tractor	.2	.1	.1
sundry exps.	6.8	6.2	7.6
Total variable costs	65.9	54.5	64.8
Gross margin	53.0	51.4	70.9
<u>Average yields</u>	Tons	Tons	Tons
seed	.6	.3	.4
ware	6.0	6.4	6.4
P.M.B.	1.9	.8	-
brock	1.5	.9	.8
Total yield	10.0	8.4	7.6
Average seed price/ton	£14.0	£13.0	£19.5
Average ware price/ton	£13.2	£13.9	£19.7
Average seed rate (cwt)	20.9c	18.4c	20.1c
Average seed cost/ton	£24.3	£20.0	£25.1
Average fertiliser rate (cwt)	9.4c	8.6c	8.8c
Units N	125	129	131
P ₂ O ₅	122	129	131
K ₂ O	182	177	184
Average dressing F.Y.M. (tons)	12.3T	11.4T	10.7T
Number of crops	17	7	7
Total acreage costed	198	29.5	62
Average acreage	11.6	4.2	8.9

Average Results per Acre - Ware Crops 1967

	Record*	A. Consul
<u>Output</u>	£	£
seed	9.8	18.9
ware	155.2	144.6
P.M.B.	19.1	-
brock	1.6	1.5
Total output	185.7	165.0
<u>Variable costs</u>		
seed	18.9	39.4
fertiliser	11.2	9.3
casual labour	22.1	17.4
contract	3.5	14.6 /
fuel excl. tractor	.3	.3
sundry exps.	6.0	13.4
Total variable costs	62.0	94.4
Gross margin	123.7	70.6
<u>Average yields</u>	Tons	Tons
seed	.7	1.4
ware	10.6	10.6
P.M.B.	1.3	-
brock	.9	.9
Total yield	13.5	12.9
Average seed price/ton	£14.0	£13.5
Average ware price/ton	£14.6	£13.6
Average seed rate (cwt)	18.4c	26.6c
Average seed cost/ton	£20.5	£29.6
Average fertiliser rate (cwt)	9.9c	7.8c
Units		
N	124	114
P ₂ O ₅	125	95
K ₂ O	174	162
Average dressing F.Y.M. (tons)	7.6T	13.0T
Number of crops	5	3
Total acreage costed	106	46
Average acreage	21.2	15.3

*4 of these crops were grown under contract for crisping.

/ Includes harvester on contract.

Range in Yields per Acre

Tons per Acre	3 - 6	6 - 9	9 - 12	12 - 15	over 15
<u>Seed Crops</u>					
<u>12 highest crops</u>					
(4 of Majestic 3 of P. Crown 3 of K. Edward 1 of P. Dell 1 of H. Guard)	-	-	1	7	4
<u>12 lowest crops</u>					
(4 of Majestic 3 of P. Dell 2 of Redskin 1 of K. Pink 1 of K. Ed. 1 of Record)	1	1	9	1	-
Majestic	-	-	9	6	2
K. Edward	-	-	1	1	3
Record	-	-	5	1	1
P. Dell	-	-	2	4	1
P. Crown	-	-	1	3	-
Redskin	1	-	3	-	-
Home Guard	-	-	1	1	-
Kerrs Pink	-	1	-	-	-
<u>Ware Crops</u>					
<u>10 highest crops</u>					
(4 of Redskin 3 of Record 1 of G. Wonder 1 of K. Edward 1 of K. Pink)	-	1	-	6	3
<u>10 lowest crops</u>					
(6 of Redskin 3 of G. Wonder 1 of K. Pink)	8	1	1	-	-
Redskin	4	1	7	3	2
K. Pink	3	1	2	1	-
G. Wonder	1	5	1	-	-
Record	-	-	2	2	1
A. Consul	-	-	2	-	1
K. Edward	-	-	-	1	-
Great Scott	-	-	-	1	-
P. Dell	-	-	-	1	-

Variable Costs per Acre

	Typical	Range
	£	£
<u>Fertiliser</u> 8c (120 N 120 P ₂ O ₅ 168 K ₂ O 1968-69 prices)	13.0	(11.0 - 15.0)*
<u>Casual labour</u> (where employed)		
semi automatic planters	1.0 - 1.5	.2 - 2.0
automatic planters	.3	.1 - .6
squad	2.0 - 4.0	1.2 - 4.1
harvesters - older or smaller machines	7.2	7.1 - 7.4
- newer or larger machines	3.0 - 5.0	2.2 - 6.0
'contract' squad	20.0 - 21.0	19.0 - 23.0
squad organised by farmer	15.0 - 18.0	5.0 - 26.0
dressing - merchant (per ton seed and ware)	1.3 - 1.6/T	1.0 - 2.3/T
- casual assistance 2 - 3 workers (per ton seed, ware and brock)	.3 - .5/T	.1 - 1.5/T
<u>Contract</u>		
weeds - paraquat	3.5 - 4.0	3.3 - 4.0
- paraquat & residual	4.0 - 5.0	3.9 - 6.7
blight (per application) - ground	1.2	1.0 - 1.9
- helicopter	2.2	-
acid	3.5	2.8 - 5.0
- half strength	2.5	1.6 - 2.8
pulverise	1.3	1.0 - 1.3
<u>Sundry</u>		
weeds - paraquat	3.0	1.4 - 3.7
blight (per application)	1.2	1.0 - 1.2
shaws - diquat	2.4	-
- chlorate	1.0	-
bags (usually supplied by merchant)		
- ½ cwt paper 6½d.	1.1/T	-
- cwt jute 1s.9d.	1.75/T	-

*Approximate