Milk Cost Production 05

THE WEST OF SCOTLAND AGRICULTURAL COLLEGE
ECONOMICS DEPARTMENT

YOUR HERD AND OTHERS

SOME RESULTS OF THE MILK COST INVESTIGATION

WINTER PERIOD 1954-55

C.W. ROBERTS

Code No. ------

Fieldsman

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6, Blythswood Square,
Glasgow, C.2.

INDEX TO TABLES

Note: All Tables relate to Winter Periods
The broken sequence in this list is due to re-arrangement of the tables to save space.

CORRIGENDUM

REPORT 22, June 1955

Milk Production in South-West Scotland

Costs and returns in the two years ended September 1954

Table 11, Column 2, 6th line from foot:

4.3 should read 24.3

SUMMARY

This report concerns milk production on 80 herds in 26 weeks ended about 31st March 1955.

The total production in these herds was 1.9% less than in the corresponding 26 weeks of 1953-54. This drop was slightly less than the total decrease in the Scottish Milk Marketing Board's area. The true average yield per cow was less by 8 gallons.

Decreases in price, in Winter Bonus and in Attested Herds Bonus, and this lower yield, together represent a drop of fully £4 a cow in value of sales in a typical herd.

Total costs, excluding cost of Cow Replacement, (£55.13s.), were higher by £7.3s. a cow in these 80 herds than in 90 herds of 1953-54, for a yield of 331 gallons a cow instead of 333 gallons.

Bought foods cost about 2% more per cwt starch equivalent than in winter 1953-54, and total costs of bought food per cow (£22.8s.) were nearly 20% higher than in the previous winter. In an identical sample of 55 herds, the quantity of bought foods per cow, in terms of starch equivalent, increased by 14%, i.e. rather less than the increase between the 90 herds of 1953/54 and 80 herds of 1954/55.

The costs of home-grown foods per cow (£20.4s.) was higher by 16% than in 1953/54, (by 13% if two exceptionally high costs are excluded). About 5% of the increase was due to higher quantities, the rest due to the marked increase in unit costs of crops harvested during 1954.

Many of the herds appear to have used much more food than they need have done. This may indicate a need for revising the standards used in assessing rations, but in some cases there is obvious inefficiency in the use of foods. The autumn grazing season was short, and the food value derived from grazing was almost certainly very low, even among 10 herds in the south-western counties.

Home-grown foods, even when charged at a hypothetical opportunity cost, were some 15% cheaper than bought foods.

Labour, at £6.18s. a cow, cost about 6% more in the 80 herds than in the 90 of 1953/54. The 7% rise in wages occurred 7 weeks from the end of the period.

As between the value of milk sales on the one hand and the costs of bought foods and hired labour on the other, the margin (£34.5s.) was less by £6.6s. a cow, or £315 a herd.

The various tables demonstrate the differences between the several groups.

In the following table the changes from year to year are partly due to changes in the sample of herds. The figures relate to winter periods.

	1952-53	1953-54	1954-55
Number of herds	110	90	80
Number of cows per herd	49	50	50
Yield per cow in herd (gals.)	324	333	331
Cost per gallon excluding cow replacement	2/11¾	3/-	3/4¾ (78 herds)
Value of milk sold per cow	£62. 1s.	£63.14s.	£61. 4s.
Cost per cow excluding cow replacement	£47. 2s.	£48.10s.	£55.13s.
Difference per cow	£14.19s.	£15. 4s.	£5.11s.

Introduction

This report concerns the milk cost investigation carried on by the Economics Department of the College for the 26 weeks ended about March 31st 1955. The previous report in this series, (Statement C, 1955), which we sent to you in March 1955, dealt with the results for the year 1953-54. Since then we have sent also, a fuller report (Report No.22) on the two years to September 1954. This present statement is the only one to be made about the Winter Period of 1954-55 until the fuller annual report is written in early 1956. Because this statement is for both your use and for the information of our colleagues of the West of Scotland Agricultural College and of members of staff of similar institutions in Britain it has been written in the general form of Report 22 rather than in the conversational, question and answer, form of Statement C, 1955.

We are grateful to you and all other of our co-operators for your careful recording and your help on many occasions.

The general conditions of this period

The period started under the cloud of a disastrously wet harvest, many herds facing a winter with smaller or lower quality stocks of fodder and grain. Although grassland, also, was generally too wet to graze in the autumn, shortage of fodder prompted many dairy farmers to put off bringing the cows in, though they would have preferred to do so. However, many herds came in because of severe poaching of the pastures. Prices of purchased foods were higher than in winter 1953/54 and monthly prices of milk were, on average, ½d a gallon less than in the previous winter. Moreover most of these herds suffered a drop of 1d a gallon in the Attested Herds Bonus. On the other hand fat cows were making high prices. Seven weeks before the end of the period minimum wages rose by about 7%. - In general, conditions were far from favourable.

The herds represented

The figures relate to 80 herds. Returns from another 8 herds were too late for inclusion. Two of the 80 are newcomers to the investigation.

The grouping of the herds

To give comparability with Report 22 the herds have been grouped according to the relation between the quantity of milk produced by each herd in Winter 1954/55 and the quantity produced by it in the year ended March 1955.

As in Report 22, the groupings are as follows:

	Winter milk production as fraction of year's production
	%
Winter Group	46 and over
Intermediate Group	36 to 45.9
Summer Group	Under 36

The mark indicates the group in which your herd lies.

The swing to spring and summer milk

There was a noticeable movement of herds from group to group as between their grouping in 1953-54 and their present grouping. In particular the Summer Group nearly doubled its numbers by the transfer of 6 from the Intermediate Group. Proportionately however, there were nearly as many moving in any one direction as moved in the opposite direction. (This paragraph refers to herds common to both winters.)

Averages

In Tables 1, 2 and 3 each herd, whether large or small, has equal importance. In Tables 5,6,8,9 and 10 and in some figures in the text the bigger herds are given proportionately more importance than the smaller ones.

In this statement all records completed in time have been included. In two of these in the Summer Group the expenditure on foods was very high and the yield very low. Thus the results shown for this Summer Group in

Tables 1 and 2 are very different from the general run. These two exceptional records have been eliminated in Table 3, which has been prepared to show the resulting average costs per cow and per gallon for the main items involved.

Milk Quality Bonus

All but one of the 80 herds received the T.T. and Attested Bonuses, three received the Attested Bonus on a per capita basis and, because they had come to the end of their four years under the current Attested Herds Scheme, all but two suffered a drop of 1d (or £1 a head) in that bonus. The change occurred at the beginning of this period. This fall of 1d per gallon represents about 27/6 a cow on average.

Feeding costs

Costs of foods and grazing were 77% of the net costs of milk production (excluding cow replacement), against 75% in 1953-54. The details are set out in Tables 1 and 2. Costs of both bought and home-grown foods were higher per cow in each group than in winter 1953-54. Some of the increases, which are of the order of 20%, were due to higher prices of bought foods or higher charges (representing estimated costs) for home-grown foods. (Table 9).

On the basis of price per cwt starch equivalent the prices of bought foods were more by 2% than in winter 1953/54: (by 4% in one group). (Table 6). This suggests that the quantities of bought food used must have risen by about 18%.

These differences are to some extent due to having different herds in the several groups in the two years. It is therefore of interest to examine the results for 55 of these herds which were common to both winter 1953-54 and winter 1954-55, results which were taken out for another purpose. On these 55 herds the quantities of bought concentrates per cow went up by 12% and the total cost of these foods by 15%; the quantities of bought foods of all sorts went up by 14% and their total cost by 17%.

The basic charges per acre for most of the home-grown foods of the 1954 harvest were raised slightly above those of 1953 because of rising prices of labour and other production expenses; and the actual charges per ton were often considerably advanced because of lower actual harvested yields (Table 9). In addition some small amounts (about 8d a cow on average) were charged in respect of complete failures of crops intended for cows.

On average, the prices charged for home-grown foods were 11% higher than in 1953/54. (Table 19 of Report 22 and Table 6). It follows, since total costs of these foods per cow were 15.6% higher, that quantities fed were some 5% higher.

In the 55 herds already referred to, the total charges for home-grown foods per cow were 10% higher. This suggests that the quantities fed in these herds had not risen so much as in all herds together.

Comparison of the cost of bought foods with the cost of home-grown foods

In terms of cost per cwt starch equivalent, the home-grown foods were over 40% cheaper than bought foods (Table 6). Even if the charges for home-grown foods are raised by 20% to allow for alternative possible profits on the ground used for growing them, these foods still would cost 30% less than the bought foods. But the bought foods contain proportionately much more protein. If we allow for this by valuing at suitable unit prices for starch and protein and if we raise the charges for home foods by the same 20% as above we still find that on average the cost of home-grown foods, on this basis, would be lower, by about 15%, than bought foods. (There may indeed have been no profit from any alternative use on this land in 1954).

The relation between food needs and foods fed

In Report 22 an assessment was made of the quantity of food value, expressed as starch equivalent, presumably obtained from grazing. A similar calculation, this time including corresponding estimation of protein, has been made. Provided the standards we have used for both food requirements and for

the feeding values of the foods, and provided the farm records of quantities of foods were correct. two-thirds of the herds were over-fed, even if they got no value, in terms of starch equivalent, from the grazing, (Table 7): the corresponding proportion in respect of protein equivalent is three-fifths. Even if we allow for, say, 10% error in food recording and as much as 20% in the food value of individual home-grown foods, one-fifth of the herds still showed overfeeding. The corresponding number of herds over-feeding protein would be about one-third.

The amount of feeding value obtained by cows from the grazing between October 1st and March 31st is obviously unlikely to be great; for grazing on these farms rarely continues after November 1st, and even before that date the cows on most of these farms need a full ration of foods in addition to whatever value they get from the grass. Perhaps the net average value derived from the grazing would be about one-third of a cwt of starch equivalent per cow. If this small amount, nevertheless worth £1 at current prices, were added to the quantities of starch equivalent derived from the foods, it would only slightly increase the number of herds apparently over-feeding; but it would increase the apparent average excess feeding from 7% to 9%.

The Summer Group, chiefly in Galloway, clearly got more out of grazing than did the other groups. Indeed, if three High Ayrshire farms, which are in this group because of low winter yield rather than high summer production, are excluded, to leave a group wholly composed of herds in the three south-west counties, these true summer producers clearly derived a useful amount of feeding value from the grass. (Table 5). Even so, the surplus nominally attributable to grass on these farms was only 0.6 cwts starch equivalent or, about one-thirtieth of the total output expected from a full season's grazing. Whether this small proportion is due largely to errors in the standards used or to actual low production from grass cannot be ascertained from the records. But it is probable that the chief cause lay in the wet autumn which prevented grazing.

The general implication, for the 80 herds, is that either the feeding standards need revising or a large proportion of the herds could achieve higher efficiency of food use. Probably the standards need revision and a fair proportion of herds could do much better.

Labour

Labour cost about 6/- a cow more than in winter 1953-54. The rates charged for family labour were about 2% higher. (Table 4).

Cow Replacement

We do not calculate this until the end of the year. Hence this has been omitted from all statements of cost; it is likely to be considerably less than last year's £1.8s. per cow.

Yields of milk

The average yield per cow in the 80 herds was 331 gallons, 2 gallons less than for the 90 herds of 1953-54. For 78 herds common to both winters, treating the whole 3,900 cows as one herd, the average yield per cow dropped 8 gallons. In the same 78 herds the number of cows rose 0.44% and the total milk produced fell 1.90%. (The corresponding fall in milk sales from all the thousands of herds supplying the Scottish Milk Marketing Board was 2.14%).

Sales of milk

Monthly prices of milk were from ¼d to 1d less than in winter 1953-54 and on average were ½d less. The Special Milk Production Bonus (of 3d instead of 5d) on the first 600 gallons each month was lower by £30 a herd; and as already said above, nearly all herds received 1d less Attestation Bonus. In average herds these factors and the lowered yield of 8 gallons, would together result in sales decreased by about £4 a cow.

Because of the changes in the herds represented, the actual drop in sales was £2.10s. instead of this £4.

The Surplus on milk production

Since we have not included the cost of cow replacement we cannot quote the actual Surplus. But if we take all other costs and compare them with sales we see that the surplus (apart from cow replacement and milk used on the farm) was lower in the 80 herds than in the 90 herds of 1953-54 by £9.13s. a cow. For 50 cows this is about £480.

As between milk sales and costs of bought foods and hired labour the margin was lower by £6.6s. a cow or £315 a herd of 50 cows. The spring of 1955 did little to restore the balance. Perhaps the summer's harvest and abundance of grass will help.

The tables

The various tables follow. A list appears on Page 1.

TABLE 1

COSTS OF MILK PRODUCTION: WINTER 1953/54 and WINTER 1954/55

PER COW

	All herds		Winter Group		Intermediate Group		Summer Group		Your herd
	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55	1954-55
Number of herds	90	80	42	36	38	31	10	13	
Number of cows per herd	49.9	50.2	47.6	49.0	52.8	49.0	48.3	56.5	
Number of bulls per herd	n.a.	1.3	n.a.	1.2	n.a.	1.3	n.a.	1.5	
Yield per cow in herd (gals.)	333	331	380	395	305	304	240	217	
COSTS PER COW.(£. s.)									
Foods: Bought	18.16	22.8	21.0	25.17	17.15	21. 2	13.13	15.19	
Home-grown	17.10	20.4	18.7	20.10	17. 4	19.11	15. 0	21. 2	
Grazing	4	4	3	3	5	4	5	7	
Total Foods and Grazing	36.10	42.16	39.10	46.10	35. 3	40.16	28.19	37. 7	
Labour: Hired	4. 8	4.11	4. 9	4.15	4. 7	4. 6	4. 8	4.13	
Family	1.10	1.10	1.11	1. 8	1.11	1.16	1. 9	18	
Farmer and wife	2.16	3. 0	3. 3	3. 6	2.11	3. 2	2. 5	2. 2	
Total Labour	8.14	9. 1	9. 2	9. 9	8. 9	9. 4	8. 1	7.12	
Miscellaneous	6.15	7. 0	6.19	7. 6	6.16	7. 1	6. 1	6. 1	
GROSS COST, EXCLUDING COW REPLACEMENT	51.19	58.17	55.11	63. 5	50. 8	57. 1	43. 1	51. 0	
Less Calves	1.14	1.13	1.14	1.10	1.14	1.13	1.16	2. 0	
Food residues	1.15	1.11	1.18	1.14	1.13	1.10	1. 6	1. 4	
NET COST, EXCLUDING COW REPLACEMENT	48.10	55.13	51.18	60. C	47. 0	53.18	39.19	47.16	
Sales of milk	63.14	61. 4	73.17	73.16	57.17	56. 6	43. 5	37.18	

Note: Minor apparent discrepancies in addition are due to entering each value to the nearest shilling.
n.a. = not available.

TABLE 2

COSTS OF MILK PRODUCTION: WINTER 1953-54 and WINTER 1954-55

PENCE PER GALLON PRODUCED

	All herds		Winter Group		Intermediate Group		Summer Group		Your herd
	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55	1954-55
Number of herds	90	80	42	36	38	31	10	13	
Foods: Bought	13.52	16.46	13.35	15.84	13.72	16.54	13.51	18.00	
Home-Grown	13.23	16.00	11.84	12.63	13.90	15.78	16.46	25.87	
Grazing	.17	.17	.11	.09	.20	.17	.29	.37	
Total Foods and Grazing	26.92	32.63	25.30	28.56	27.82	32.49	30.26	44.24	
Labour: Hired	3.19	3.45	2.81	2.86	3.35	3.44	4.19	5.10	
Family	1.23	1.18	1.05	.95	1.30	1.44	1.77	1.20	
Farmer and wife	2.14	2.29	2.05	2.06	2.09	2.42	2.71	2.64	
Total Labour	6.56	6.92	5.91	5.87	6.74	7.30	8.67	8.94	
Miscellaneous	5.07	5.34	4.48	4.48	5.40	5.61	6.25	7.06	
GROSS COST, EXCLUDING COW REPLACEMENT	38.55	44.89	35.69	38.91	39.96	45.40	45.18	60.24	
Less Calves	1.29	1.29	1.10	.95	1.35	1.33	1.84	2.17	
Food residues	1.29	1.17	1.22	1.06	1.33	1.19	1.40	1.43	
NET COST, EXCLUDING COW REPLACEMENT	35.97	42.43	33.37	36.90	37.28	42.88	41.94	56.64	

TABLE 3

COST OF MILK PRODUCTION,
EXCLUDING TWO HERDS WITH EXCEPTIONALLY HIGH FOOD COST

	All herds		Summer Group	
	1953-54	1954-55	1953-54	1954-55
Number of herds	90	78	10	11
Yield per cow in herd (gals.)	333	336	240	231
COST PER COW (£.s.)				
Foods: Bought	18.16	22.11	13.13	16. 2
Home-Grown	17.10	19.17	15. 0	18.15
Foods and Grazing	36.10	42.13	28.19	35. 4
NET COST (EXCLUDING COW REPLACEMENT)	48.10	55.11	39.19	45.10
COST PER GALLON (Pence)				
Foods: Bought	13.52	16.24	13.51	16.68
Home-Grown	13.23	14.89	16.46	19.78
Foods and Grazing	26.92	31.29	30.26	36.85
NET COST (EXCLUDING COW REPLACEMENT)	35.97	40.82	41.94	47.85

TABLE 4

RATES PER HOUR CHARGED FOR FAMILY LABOUR

		Winter 1953-54	Winter 1954-55
Farmer		3/3	3/4
Other males:	Over 20 years	3/0	3/1
	19 years	2/7	2/7
	18 "	2/2	2/3
	17 "	1/10	1/10
	16 "	1/7	1/7
	15 "	1/4	1/3
Females:	Over 21 years	2/6	2/4
	18 to 20 "	2/2	2/1
	17 years	1/10	1/9
	16 "	1/6	1/6
	15 "	1/3	1/4

TABLE 5

ESTIMATED FOOD REQUIREMENTS AND SOURCES OF FOOD FOR COWS AND BULLS

CWTS PER COW: WINTER 1954-55

	All Herds	Winter Group	Intermediate Group	Summer Group	Summer Group less High Ayrshire Farms
Number of Cows	4018	1764	1519	734	668
" " Bulls	104	45	40	19	16
STARCH EQUIVALENT					
Fed: Bought	7.7	9.4	7.0	5.1	5.1
Home-Grown	12.9	13.2	13.1	12.1	11.2
Total	20.6	22.6	20.1	17.1	16.3
Needed	19.3	20.7	18.8	16.8	16.9
Excess fed	1.3	1.8	1.3	.3	(-) .6
do. %	7	9	7	2	(-) 3
PROTEIN EQUIVALENT					
Fed: Bought	2.0	2.5	1.7	1.4	1.4
Home-Grown	1.5	1.7	1.6	1.1	1.0
	3.5	4.2	3.3	2.5	2.4
Needed	3.1	3.5	3.0	2.6	2.6
Excess fed	.4	.7	.3	(-) .1	(-) .2
do. %	13	20	10	(-) 2	(-) 8

Note: Minor apparent discrepancies are due to rounding to one decimal.

TABLE 6

COSTS OF FOODS: PER CWT ESTIMATED STARCH EQUIVALENT AND PROTEIN CONTENT: WINTER 1954-55

	All Herds	Winter Group	Intermediate Group	Summer Group
Costs per cwt S.E. (shillings)				
Bought Foods	55.4	54.4	56.0	58.5
Home-Grown Foods	31.4	31.5	31.0	32.0
Costs as % of current unit values of S.E. and P.E.				
Bought Foods	100.0	97.3	102.7	104.5
Home-Grown Foods	70.8	69.9	69.9	75.5
Home-Grown Foods if costs are raised 20%	85.0	83.9	83.9	90.6
Protein content (P.E. as % of S.E.)				
Bought Foods	26.1	26.7	25.0	26.9
Home-Grown Foods	11.9	12.8	12.0	9.5
All Foods	17.2	18.6	16.5	14.6
Cost per cwt S.E. (Winter 1953-54) (shillings)				
Bought Foods	54.3	53.2	55.2	56.1

TABLE 7

STARCH EQUIVALENT AND PROTEIN EQUIVALENT

Distribution of excesses of estimated foods fed over food needs: Winter 1954-55

Numbers of Herds

CWT S.E. PER COW	All Herds	Winter Group	Intermediate Group	Summer Group
Apparently obtained from grass				
4 - 4.99	4	-	3	1
3 - 3.99	3	2	-	1
2 - 2.99	6	1	4	1
1 - 1.99	5	2	1	2
0 - .99	9	4	4	1
Apparent over-feeding				
0.01 - .99	14	9	3	2
1.00 - 1.99	9	4	4	1
2.00 - 2.99	5	3	2	-
3.00 - 3.99	4	3	-	1
4.00 - 4.99	7	3	3	1
5.00 - 5.99	7	3	4	-
6.00 - 6.99	1	-	1	-
7.00 - 7.99	2	1	1	-
8.00 and over	4	1	1	2
	80	36	31	13

CWT P.E. PER COW				
Apparently obtained from grass				
.80 and over	3	1	1	1
.60 - .79	3	-	3	-
.40 - .59	2	-	-	2
.20 - .39	4	-	2	2
.00 - .19	8	2	4	2
Apparent over-feeding				
.00 - .19	9	4	3	2
.20 - .39	4	3	1	-
.40 - .59	15	9	5	1
.60 - .79	9	6	3	-
.80 - .99	4	2	2	-
1.00 - 1.19	6	2	3	1
1.20 - 1.39	4	2	2	-
1.40 - 1.59	1	1	-	-
1.60 - 1.79	5	3	-	2
1.80 and over	3	1	2	-
	80	36	31	13

TABLE 8

WEIGHTS OF INDIVIDUAL FOODS FED: WINTER 1953-54 and WINTER 1954-55

CWT PER COW

	Winter Group		Intermediate Group		Summer Group	
	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55
Number of cows	1999	1764	2005	1519	483	734
Bought foods						
Dried grass feeds	.11	.11	.04	.21	-	-
Cakes and meals	10.41	12.76	8.94	10.10	7.57	8.22
Beet pulp, Dried	.50	.83	.37	.61	-	.14
Beet pulp, Wet or Pressed	.05	-	-	1.29	.32	-
Draff and Wet grains	4.11	5.64	1.31	1.01	.39	.31
Hay	.11	.17	.53	.19	.16	.02
Straw	.27	.11	.03	.13	-	.25
Turnips and swedes	.17	1.06	.20	.08	.01	-
Potatoes	.49	-	.44	-	.60	.10
Minerals etc.	.03	.04	.04	.03	-	-
Total bought foods	16.25	20.72	11.90	13.66	9.05	9.04
Home-grown foods						
Dried grass	.67	.81	.67	.33	-	.44
Oats	4.95	3.44	3.56	3.25	2.40	2.37
Beans	.06	.10	.03	-	-	-
Mashlum	.64	.42	.51	.40	-	-
Other cereals	.09	.18	.08	.01	-	-
Hay	13.37	12.92	7.66	11.13	3.47	3.86
Straw	6.59	5.26	8.81	8.01	12.23	14.14
Turnips and swedes	37.59	30.62	47.92	43.42	76.89	76.73
Kale	8.99	6.75	8.92	9.54	1.35	.32
Cabbage	1.12	.54	.13	1.03	.44	-
Shaws	1.76	2.72	1.32	-	-	-
Mangolds	1.29	.23	3.12	1.34	1.04	6.72
Fodder beet	.25	1.96	1.40	-	-	-
Potatoes	.03	.17	.05	.02	-	-
Grass silage	7.69	11.07	9.43	8.16	-	4.88
Arable silage	1.76	1.39	1.40	1.06	-	-
Miscellaneous sheaves	.13	.64	.15	1.04	.05	.48
Total home foods	86.98	79.26	95.16	88.77	97.87	109.93
GRAND TOTAL	103.23	99.98	107.06	102.43	106.92	118.97

TABLE 9

PRICES AND CHARGES FOR FOODS: ALL HERDS

PER TON

Purchased Foods	Winter 1952-53 £ s.	Winter 1953-54 £ s.	Winter 1954-55 £ s.
Dried grass feeds	32.10	29. 3	27. 9
Other cakes and meals	36.11	35. 0	35.16
Hay	10. 5	10.11	15.17
Straw	4.11	4.11	9. 2
Beet pulp, Dried	19.12	23. 0	20. 0
" " Wet and Pressed	4.18	4. 8	4. 9
Draff and Wet Grains	3.14	4.18	3. 9
Turnips	3.16	3. 8	3. 0
Potatoes	6.16	3. 6	6. 4
Home-Grown Foods			
Dried grass	24. 3	22. 6	25.14
Oats	18. 4	19.18	21.10
Beans	23.11	25. 3	28. 5
Mashlum	19.18	21.10	23.17
Hay	7. 9	7.10	9. 1
Straw	4.10	3. 7	3. 8
Turnips and swedes	2. 2	2. 0	2.14
Kale	2. 1	1.17	2.11
Cabbage	1.18	1.18	2.11
Mangolds	2. 2	1.18	3. 3
Fodder beet	-	4.17	4. 0
Potatoes	3.15	3.15	3.15
Shaws	-	.8	.16
Miscellaneous sheaves	-	13. 6	10.14
Grass silage	2.19	3. 6	3. 7
Arable silage	3. 4	3. 6	3.15

TABLE 10

QUANTITIES OF FOODS CONSUMED, WHETHER BOUGHT OR HOME-GROWN

WINTER 1953-54 and WINTER 1954-55

CWT PER COW

	Winter Group		Intermediate Group		Summer Group	
	1953-54	1954-55	1953-54	1954-55	1953-54	1954-55
Number of cows	1999	1764	2005	1519	483	734
Concentrates: Bought	11.02	13.70	9.55	10.93	7.57	8.36
Home-Grown	6.41	4.97	4.85	4.00	2.40	2.81
Total	17.43	18.67	14.20	14.93	9.97	11.17
Draff and Wet Grains	4.11	5.64	1.31	1.01	.39	.31
Beet pulp, Wet or Pressed	.05	-	-	1.29	.32	-
Hay	13.48	13.09	8.19	11.33	3.63	3.88
Straw	6.86	5.37	8.84	8.15	12.23	14.38
Silage	9.45	12.47	10.83	9.22	-	4.88
Roots and miscellaneous	51.85	44.75	63.69	56.51	80.38	84.35
GRAND TOTAL	103.23	99.98	107.06	102.43	106.92	118.97