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"THE LAMB MARKET"

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In this Bulletin it is proposed to discuss the factors affecting the price of New Zealand lamb sold in the United Kingdom and the factors which will influence the future of these prices. A concluding section includes some brief remarks by way of suggestions with respect to policy to meet the situation in the lamb market.

The Statistics of the Lamb Market:

In the first table below are given some of the important figures relating to United Kingdom supplies and prices of lamb for pre-war and post-war years. In the case of the pre-war years the figures are presented as averages for five-yearly periods. From 1939 to 1954 all New Zealand meat was sold under bulk-purchase contracts and prices were fixed without much regard to supply and demand in which we are here interested. From 1955 to 1959, the figures are given for individual years.

A word or two is necessary about the figures given in this table. Firstly the figures for per capita supply of lamb and mutton cover supplies from all sources and not just supplies from New Zealand alone. The prices given in the table are sterling prices as quoted at Smithfield. In this connection it must be noted that Smithfield quotations are to a certain extent becoming unrepresentative of British meat prices in general because an increasing quantity of meat is by-passing this market and moving direct into retail consumption. In this connection, a relatively inexpensive **continuing survey** of British retail prices for New Zealand meat, is a project well worthy of the attention of the authorities. Be that as it may, the Smithfield prices are the only quotations available for use.

The next point is that when comparing the price levels of lamb one year with another, account must be taken of the changes in the **general** price level, i.e. changes in the value of money. This, of course, is important when comparing pre-war and post-war years but it is particularly important to New Zealand farmers and to the New Zealand economy because our interest is not in lamb prices alone but in those prices compared with the prices of commodities which, as consumers, we import or which are used by farmers in the process of production. Accordingly in the table the price of lamb has been converted into index numbers and then divided by the index number of the British cost of living—the best indicator we possess of the general price level.

The startling fact that emerges from this table is that in **real terms** (prices deflated by the British cost of living index) **the sterling price of lamb is now lower than pre-war.** As far as the individual farmer is concerned matters are even worse than this because pre-war (and up to the revaluation of 1948) the price of lamb in New Zealand currency was 25 per cent higher than in sterling whereas now it is at parity with sterling.

The Relationship Between Supplies and Prices:

The data given in Table I are shown, for all the individual years, in the diagram which brings out quite forcibly the very close inverse relationship between the annual per capita supplies of lamb and mutton in the United Kingdom and the deflated price index. Broadly speaking the years up to 1938 were characterised by rising levels of supply and therefore falling levels of price. After 1932 there was some tendency towards stability at a low level. High prices in 1955-1957 were clearly the result of a level of supply lower than at any time since 1928 and in 1958 and 1959 we see supplies rising quite rapidly and prices falling in sympathy.

This graph is of course only a statistical confirmation of the law of supply and demand—as more lamb is placed on the British market, it will only be taken off the market if prices fall so that people will be induced to increase their rate of consumption—and vice versa for a fall in supplies.

Of far greater interest, however, is the exact quantitative nature of the relationship between supplies and price—by **how much** for example does the price tend to fall for every increase of 1 per cent increase in supplies. To secure the answer to this important question requires some very detailed and complex statistical calculations but preliminary work on the problem suggests that over the whole period reviewed and at the present time for every rise in supply of 1 per cent there followed a fall in price of 1.5 per cent, and vice versa for falls in supply.

Alternatively we can turn this round the other way and say that it takes a 15 per cent fall in price to induce consumers to increase consumption by 10 per cent or, to use the technical language of the economist, the price elasticity of demand is 0.6 (the price elasticity of demand being the ratio of the percentage change in consumption to the percentage change in price). This result matches quite well with overseas economists' attempts to measure this relationship and it accords with the generally accepted view that the demand for food is not very responsive to changes in price by comparison with the same response for items of non-food or luxury consumption.

The very significant implication of this relationship between supplies and prices is that not only do greater supplies lead to lower prices, but they are likely also to lead to **lower overall total receipts** because of the price falling proportionately more than the rise in volume. The implications of this point will be mentioned later on in this Bulletin after a brief review of the prospects for lamb supplies in Britain over the next few years. For, as has been shown, it is on this future course of supplies that future prices will depend.

The Prospects for United Kingdom Supplies of Lamb and Mutton:

Table II gives the figures of total supplies of lamb and mutton in the United Kingdom for 1950 and for the past five years.

It is evident from the table that the increase in total supplies from 541,000 tons in 1950 to 600,000 tons in 1959, is accounted for mainly by increasing supplies from New Zealand and from United Kingdom production, and that supplies from other countries have, if anything, been declining. Even if this declining tendency is reversed in the near future (which is most unlikely) the level of supplies of lamb in the future will depend mainly on what is produced in Great Britain and in New Zealand.

The reason for the dramatic increase in British lamb and mutton production in recent years lies in the policy of agricultural subsidies used by that country to encourage an increased production of meat. The reasons for these subsidies, and the grave effect of them on the prices of New Zealand lamb and mutton, cannot be discussed here(1). What is important is that such subsidies have become extremely expensive to the United Kingdom Treasury as a result of the decline in lamb prices in recent years so that not only is the possibility of an increase in these subsidies very remote it is quite conceivable that they could decline. At the worst then we are likely to see United Kingdom lamb production stabilising at about its present level.

So much for British production. New Zealand supplies of lamb and mutton in the future will depend on prices received for lamb and wool. These prices have two main effects.

The first effect concerns the relative prices of the two products.

There is a considerable amount of evidence to show that **year by year** the proportion of lambs killed to lambs tailed fluctuates according to the ratio of lamb prices to wool prices. In years with low lamb prices and good wool prices, there is a tendency, if seasonal conditions are favourable, for farmers

(1) For a discussion of the wider implications of the British subsidies see the author's articles on "The Outlook for Lamb" in "The New Zealand Farmer" November and December, 1959.

TABLE I

U.K.'S SUPPLIES OF LAMB AND MUTTON AND PRICES OF N.Z. LAMB

Years	Per capita supply of all Lamb & Mutton lb. a head	Index Number 1934-38 =100	Average Season's Price of N.Z. Down x Lamb 29/36 lb. d a lb.	Index Number 1934-38 =100	U.K. Cost of Living Index 1934-38 =100	Ratio of Lamb prices to U.K. cost of living 1934-38 =100
1921-23	23.7	93	11.4	155	131	119
1924-28	22.7	89	10.6	143	115	124
1929-33	26.3	103	7.6	103	101	101
1934-38	25.4	100	7.4	100	100	100
1955	23.2	92	26.0	352	252	140
1956	23.5	93	24.2	328	266	123
1957	23.2	92	27.0	366	276	133
1958	22.9	91	24.7	335	284	118
1959 (a)	25.9	103	20.4	276	285	97

(a) Provisional estimates based on figures to date.

TABLE II

UNITED KINGDOM SUPPLIES OF LAMB AND MUTTON

	1938	1947	1950	1955	1956	1957	1958	(a) 1959
				(000	Tons)			
Net Imports								
from: New Zealand	184	253	271	247	257	247	257	290
Australia	95	50	64	52	30	32	45	48
Argentine	45	103	40	52	49	47	26	28
Other Countries	21	19	17	3	8	9	9	9
Total Imports	345	425	392	354	344	335	337	375
United Kingdom Production	211	117	149	174	194	199	190	225
Total Supplies	556	542	541	528	538	534	527	600

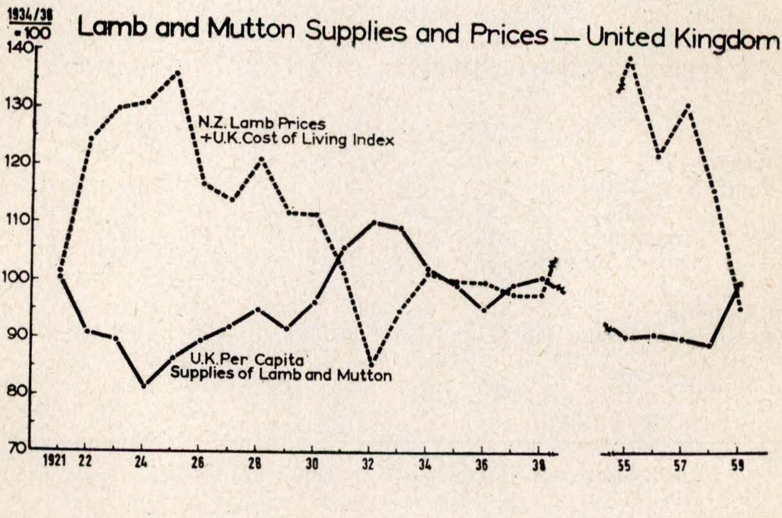
(a) Provisional estimates based on latest available figures.

TABLE III

DATA AS USED IN DIAGRAM

Year	U.K. per capita Supplies of Lamb & Mutton	N.Z. Lamb prices— U.K. Cost of Living Index
1921	100.4	102.8
1922	90.6	124.7
1923	89.0	130.7
1924	82.3	131.0
1925	87.0	136.3
1926	89.0	117.1
1927	93.7	114.6
1928	94.9	121.6
1929	93.3	112.3
1930	97.6	112.1
1931	106.7	101.9
1932	110.6	85.4
1933	109.1	94.9
1934	102.0	102.9
1935	100.8	100.5
1936	95.3	100.1
1937	99.2	98.4
1938	102.8	98.0
1955	92.1	139.6
1956	93.2	123.3
1957	92.1	132.5
1958	90.9	117.8
1959	102.8	97.1

Lamb and Mutton Supplies and Prices — United Kingdom



to reduce the proportion of lambs killed to lambs tailed so that more lambs are retained as hoggets thus tending to build up flocks in the year following.

(It is not improbable that, in the current 1959-60 season, with good wool prices and low lamb prices we will finish up with a lamb kill not greatly in excess of 1958-59 and that as a result Smithfield prices for lamb will on average turn out to be about the same as 1958-59.)

Over the longer period, however, there is a limit to reductions in the slaughter ratio and to increases in sheep numbers which follow it—and this is where the second and more fundamental effect of prices must be considered. For with lowered incomes earned by sheepfarmers a point must ultimately be reached where there are no longer the financial resources available from incomes to reinvest in farm development expenditure which is so essential if sheep numbers are to be continually increased. When this point was reached (and owing to the present reserve of carrying capacity it could conceivably be in three or four years time with about 55 million sheep) then lamb killings would settle down at a steady rate (about 22 million) and sheep numbers would stay at a stationary level. Of course the increase in lamb killings could come much earlier than this if there was a marked decline in wool prices but the essential point is that whatever happens lamb killings are going to rise very considerably in the next three or four years.

In any event **if things are left to take their normal course** a further marked decline in lamb prices seems probable in the future bearing in mind the evidence given above of the close relationship between lamb supplies and prices.

To cope with, or if possible prevent, this decline in prices must be the major aim of our agricultural production and marketing policy especially in view of the necessity for continued expansion in agricultural output at remunerative prices to maintain our living standards with an increasing population.

This Bulletin concludes with a brief note as to the main courses of action open to us.

Policy:

Three main avenues of policy can be suggested. They are:

(i) To increase the demand for lamb by every method possible, including improved processing, packaging and presentation.

(ii) To try to reduce supplies of lamb to Britain from other sources.

(iii) To encourage a switch in our agricultural production away from lamb towards other products and thus reduce the supply from New Zealand.

(i). Increasing the demand for lamb means looking for new markets. Much about this has been written elsewhere but two points can be made here. Firstly, if we wish to sell meat to new markets we have got to be prepared to engage in reciprocal trade by allowing freer entry for imports from these countries into New Zealand.

Secondly there is a point which follows from the fact, mentioned above, that the effect on prices of extra supplies of lamb and mutton sold in Britain is such that the extra volume marketed yields us little by way of extra export receipts. If these extra supplies were sold elsewhere even at prices lower than those received in Britain, they would yield extra export income.

Clearly marketing in these terms of differential prices could only be performed by a co-ordinated marketing authority, such as the proposed New Zealand Meat Export Development Company, for whom there would be distinct advantages, in the job of developing new markets where lamb and mutton are not traditionally eaten, in being able to offer our meat at prices low enough to tempt new consumers to experiment with it.

This is not to say that we should here and now embark on a policy of differential prices and centralised marketing for there are considerable disadvantages inherent in both ideas. But in our marketing policy we should at least be prepared to accept the view that, even if the costs of transport and market development are such that some new markets return us net less per lb than in Britain, we would still be better off, from the national view point, than by continuing to sell the lambs in Britain.

On the other hand there is another school of thought which believes that the extension into new markets is not so much a matter of prices as packing and presentation, and that the operation of individual exporters testing out and developing new markets with a variety of packs, a variety of choices of joints and cuts, and some variety in the presentation is likely to be more rewarding in the development of these new markets.

We must feel concerned however as to whether individual exporters would be willing to bear or should be asked to bear these costs of development which must inevitably result for them in lower profits than if the meat were continued to be marketed in U.K.

(ii). Securing a reduction in supply of lamb from other sources can only mean a reduction in British supply. This can only come about as a result of a reduction in the level of British subsidies for lamb production. These are, in any case, likely to be lowered with the fall in open market prices for lamb which have the effect of increasing the cost of the subsidies and it may be that we might have to put up with lowered prices for a year or two in the interests of forcing such a reaction. But this should be backed up with "moral persuasion" through the appropriate diplomatic channels by urging on Britain the harm done to our trade by these subsidies which have the same effect as a tariff imposed on our lamb.

(iii). The "other products" towards which we could conceivably diversify our production away from lamb are beef and wool. The difficulty with beef production is that it is still not as profitable per acre to produce, as fat lamb, even with the rather higher beef prices of recent years and the lower lamb prices. Some sort of extra financial encouragement (such as subsidies) would be required to induce any large scale shift towards beef. Such subsidies would be quite defensible economically for here again we are faced with the problem that, however economic it may be for the **individual**, extra production of lamb is adding little or nothing to the **nation's** revenue while extra production of beef would add a lot. But, of course, there are many other grounds on which subsidies are difficult to defend. Finally we come to the possibility of switching the accent in sheep production from lamb to wool which of all our agricultural products appears to be standing best the test of time. No one so far has worked out the economics of such a policy but it certainly merits consideration for it may well be that we are now emerging from a period in which wool was a sideline to lamb production to a position where the sideline is fat lamb.

Copies of this Bulletin may be obtained from the Secretary, Canterbury Chamber of Commerce, P.O. Box 187, Christchurch