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7 The demand for grassland products and the role of British grassland

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INTRODUCTION

Paradoxically, a study of the UK's demand for grassland products cannot be equated with a study of the demand for British grassland. This is so for two particular reasons: the first is that, with changes in technology and price, some products that today we consider to be grassland products may not be supplied from grassland in the future; the second is that, because of the possibilities of trade, British grassland is neither the sole supplier of British demand nor is it constrained to supply only British demand. (Some relevant data are contained in Tables 1, 2 and 3.) It is to an exploration of these two themes that this paper will be directed and, whilst evading the role of the futurologist, an attempt will be made to assess the impact of legislation on the two issues.

Before moving on to the subject matter of this paper it is necessary to indicate the limitations of the study. Specifically we are about to ignore the supply side of the equation. Thus the supply of land for grassland purposes – in a market economy such as the UK – will be dependent upon the relative profitability of using land to produce grass in comparison with other activities; in turn, the profitability of such other uses will be dependent upon technology, trading possibilities and legislation. In short we live in an interdependent world, and it would be misleading to look forward twenty years without recognising that our whole social and economic environment will be subject to change.

Table 1
UK meat supplies (thousand tonnes)¹

	Calendar years					
	1967– 1969 Average	1974	1975	1976	1977	1978 (forecast)
Beef and Veal						
Production	946	1 086	1 219	1 069	1 032	1 079
Imports ^{2, 3}	313	294	247	249	298	296
Exports (live and meat)	56	82	142	118	125	138
Total new supply	1 202	1 299	1 324	1 199	1 205	1 237
Production as % of total new supply	79%	84%	92%	89%	86%	87%
Mutton and Lamb						
Production	244	253	264	248	229	248
Imports ³	354	213	244	226	219	221
Exports (live and meat)	12	30	39	38	51	60
Total new supply	586	436	468	435	397	409
Production as % of total new supply	42%	58%	56%	57%	58%	61%

¹ Does not include meat offals or trade in preserved or manufactured meat products (eg, canned meats).

² Boneless beef and veal have been converted into bone-in weights, in order to bring imports into line with the home production figures.

³ Includes meat from animals imported fat from Ireland.

Source: MAFF (1979).

CHARACTERISTICS OF GRASSLAND PRODUCTS

There are essentially two ways in which the demand for land for grass might be affected, even if the demand for grassland products remains constant. One is the case in which new technology, managerial forms, or changes in legislation, permit the profitable production of the same product in an alternative fashion. The classic example of such a change is the revolution in the production of eggs and poultrymeat in this country over the last two decades: and a question which may well be considered by other groups – though not in this paper – is whether new feeds could be introduced for the production of animal products which currently are derived from grass.

Table 2
UK wool supplies (thousand tonnes)

	Calendar years					
	1967– 1969 Average	1974	1975	1976	1977	1978 (forecast)
Production ¹	53	50	49	48	46	47
Imports	239	121	132	162	137	159
Exports	26	24	29	32	31	25
Total new supply	266	147	152	178	152	181
Production as % of total new supply	20%	34%	32%	27%	30%	26%

¹ Figures relate to clip years (June/May).

Source: MAFF (1979).

Table 3
UK self-sufficiency ratios¹ in butterfat and milk solids-not-fat

	1974	1975	1976	1977	1978 ²
Butterfat	56	56	63	69	73
Solids-not-fat	100	103	107	113	111

¹ The self-sufficiency ratio is defined as the total availability of butterfat/solids-not-fat divided by total domestic disappearance of butterfat/solids-not-fat in all milk and dairy products.

² Provisional.

Source: MMB (1978, 1979).

Some consumers might believe that free range eggs are different in some way from battery produced eggs, and if that characteristic of free range eggs results in the product being more preferred to battery produced eggs then one might expect that consumers would be willing to pay a higher price for the more preferred product. In fact economists have come to look increasingly at the characteristics possessed by products, and less at the products themselves, when analysing demand (an early contributor to this work was Lancaster, 1966). Thus my second case, in which the demand for grassland might fall, even though the demand for grassland products remains

constant, is the introduction of new products having those characteristics of grassland products that the consumer values. An example of the first case would be the production of beef cattle fed on vegetable residues not derived from grassland; an example of the second case would be the introduction of soya-based products having the essential characteristics of beef.

In both instances, the roles of price and government legislation are crucial. If we are considering two identical products derived from alternative sources then the cheaper source will tend to displace the more expensive – unless restrained by government legislation. Such legislation may or may not have the express purpose of protecting the higher cost producer: it might for instance have been introduced to meet the demands of animal welfare groups. In the second instance, where the two products are not identical but do have some common characteristics, we might expect the total market to be shared, with the relative shares being determined by the price ratio between the two. An example that meets this case is the market for spreadable fats.

Butter and margarine share a number of characteristics, but differ in other respects: taste, perceived health risks, spreadability from the refrigerator etc. As the price of butter falls in relation to that of margarine, its market share tends to rise and *vice versa*. Neither product is 'perfect': both possess some characteristics that are more preferred by consumers (eg, the taste of butter) and less preferred (eg, the health risks said to be associated with butter consumption). In time the economist would predict the emergence of a new product (or blend of the existing two) which would attempt to combine the more preferred characteristics associated with the existing products. And this has indeed happened in Scandinavia where various blends of milk solids and vegetable fats compete with butter and margarine. A similar product has been launched on the UK market.

The farming community itself has not been slow to take advantage of new products. For feeding calves, milk replacers now predominate in which the milk's butter fat has been replaced by vegetable fats. Skim milk is only used as pig feed if it is priced competitively with soya bean meal.

TRADE

For many years the British government has intervened in one form or another in the international trade in grassland products. In a number of important respects such intervention was modified by the accession of the United Kingdom to the European Communities (EC) in 1973. Legislation may act to discourage or encourage trade and may seek to discriminate between trade partners. At present, the main body of legislation is embodied in the EC's Common Agricultural Policy (CAP), but there are some pieces of UK

legislation which are still of concern. A brief review of the legislation affecting milk and milk products may be illustrative.

Prior to Britain's accession to the EC the country followed a regime in which dairy products, but not milk, were fairly freely imported. A trade sprang up by which New Zealand, Australia, Denmark and Ireland supplied a large portion of our butter and cheese requirements. However, all liquid milk for direct human consumption was supplied by British farmers. This latter phenomenon was dependent partly upon the geographical situation of the island, which would have added considerable transport costs to the price of any imports, and the fact that – although not expressly forbidden – imports could not circumvent the provisions of the dairy health regulations. Thus, the British demand for liquid milk was met from British grassland.

Moreover, the government provided the farming community with the means to maximise its return from the liquid market: the Milk Marketing Boards. Established in the 1930's the MMB's were given monopoly powers in that they controlled the price at which raw milk could be sold for different uses. Thus, as the sole suppliers to the British market, they could charge a monopoly price for liquid milk (though subject to government control). Consequently, a higher average price (pool price) could be paid for milk produced from British grasslands than would have been the case with free trade.

Entry into the EC modified this system in several respects. First, all dairy products were subject to import controls: specifically, variable import levies (taxes) which are designed to increase the price, and hence profitability, of home-produced butter and cheese and to ensure that such imports as are necessary come from our partner Member States and not from other third countries. This was modified to a significant extent in that one third country – New Zealand – was singled out for preferential treatment in the importation of butter and cheese over a transitional period. One consequence of the Tokyo round of GATT (General Agreement on Tariffs and Trade) negotiations is that Australia, Canada and New Zealand will from January 1980 have guaranteed access to the EC market for limited quantities of cheese.

Secondly, products were supposed to circulate freely within the enlarged EC without any border restrictions. At the time of writing (1980) this has not been achieved in one significant respect: the UK's health regulations still effectively bar the importation of liquid milk. This is likely to be challenged in the European Court on the grounds that imports would not present a risk to health and that the current legislation acts as a 'non-tariff barrier' in forbidding imports and protecting the domestic producer. In addition to this the EC agreed to treat the MMB's as a special case and permit their continued operation. Thus, they are still able to extract a monopoly price for liquid milk from the British consumer.

Thirdly, the EC has legislated in such a way that a whole paraphernalia of mechanisms have been devised to support the price of milk (and other grassland products) should the import taxes be inadequate. On the one hand a series of export subsidies are granted so as to stimulate the foreign demand for our grassland products; on the other the State intervenes directly to purchase such quantities of produce as cannot be sold at the EC's predetermined support price. Part of the demand perceived by the supplier of grassland products comes not from domestic consumers, nor even foreign consumers, but direct from the State.

To complete the circle we find that the state's intervention in the dairy sector not only discourages consumption because of high prices, but positively encourages the consumption of alternative (non-dairy) products which enjoy a more liberal import regime, such as margarine and soya; it may even encourage the introduction of new (cheaper) products. The next step in the process would be the introduction of legislation forbidding, or discouraging, the introduction of such products, as with isoglucose.

THE STATE AND THE FARM SECTOR

It would be wrong to imply that it is only in the farm sector that the government intervenes, or even that the intervention in farming is more pervasive than in other sectors. In the modern world the State intervenes in all aspects of our lives. The purpose of this essay has been to try to show how national and EC legislation influences the products that are produced, the methods by which they are produced and the countries with which we trade. Any assessment of the role of grassland in the British economy must take these factors into account.

It might, however, be argued that, in the long run, such intervention is irrelevant; that governments cannot forever forbid the introduction of new technologies or products, or fix prices that lead to persistent market imbalances. Such a view is undoubtedly correct: in the long run. In the next twenty years many aspects of our society will undoubtedly be revolutionised, and the CAP will not be immune to change. However, I suspect that many aspects of our agricultural policy will still be recognisable.

We need only look back over the last fifteen years to realise how slowly change takes place. Twelve years ago, in his famous plan for EC agriculture in 1980 (CEC, 1968), Mansholt spoke of market imbalances and a fragmented farm structure: problems that are still with us today, although Mansholt (1979) seems to have modified his views. In 1969, after a devaluation of the French franc, monetary compensatory amounts were first introduced into the CAP – a 'temporary' solution which is still with us today (Swinbank, 1978).

There rests, however, one view of the world that must be dealt with: that the world food situation will deteriorate to such an extent that government should actively intervene in the agricultural sector to promote self-sufficiency. Ritson (1980) has contributed a careful analysis of the case for self-sufficiency and only some general comments can be sketched in here.

The first is to note that self-sufficiency today, in advance of the change in the supply-demand balance, would only be justified if we believed that we could not adapt sufficiently quickly in the future to a deteriorating situation. The second is to note that self-sufficiency applies to both production and consumption and does not simply mean a more intensive agriculture. Thus, as far as production is concerned, one would expect to promote a more self-sufficient farming system which relied less on imported fuels, fertilisers and feeds. As regards consumption, one would wish to avoid wastage of food and over-consumption and also to promote a switch to foodstuffs such as cereals, pulses and roots, which maximise nutritive output from a given land area. Consequently, British grassland would be in demand, but for the plough at the expense of the production of animal products.

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