



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

NEWT

DP 10

GIANNINI FOUNDATION OF
AGRICULTURAL ECONOMICS
LIBRARY

WITHDRAWN
APR 26 1985



University of Newcastle upon Tyne



III **DISCUSSION PAPER**

Department of Agricultural Economics and
Department of Agricultural Marketing

DP 10

February 1985

Agricultural Marketing:
Its Relevance To The UK Farming Sector

Rosalind Warren
Department of Agricultural and Food Marketing

INTRODUCTION

Farmers have, for some time, been associated with the market place but only recently with marketing. Over the last two or three years, however, the farming media has been full of admonishments for farmers to "improve their marketing".

This paper seeks to identify (a) what is meant, in this context, by the term "marketing"; (b) why there has been such a recent upsurge of interest in the subject; (c) whether it is relevant to farmers as individuals; and (d) whether it implies any radical changes for the UK agricultural industry. Answers to these questions may help to resolve the suspicion of many farmers that this interest in marketing is just another passing fad which has been seized upon by politicians, who may feel increasingly impotent in giving any real support to agriculture, and consultants and quangos, who want simply to stay in work.

The distinction between being associated with the market place and marketing is important. In agriculture the farm-gate seems to have taken on a significant role in defining where the production process ends and the market place begins. As a result, there is some confusion over what is meant by the term "agricultural marketing". If the market place is beyond the farm-gate, then farmers' activities would seem to be predominantly concerned with production rather than marketing. Farmers, as individuals, are too insignificant, in terms of market power, to influence events that actually take place in the market - which is really the stuff of "marketing". The best that they can do, therefore, is to improve their "marketing management"; that is, to leave the farm-gate open and to re-act to signals which pass through it from the market place by considering them in their production activities. In other words, being associated with the market place (and marketing management) implies a more passive role than that suggested by marketing. It implies using information which has been gathered from the market-place in order to decide what to produce, how to produce it, when to produce it, how to present it, when to sell it and to whom to sell it. "Marketing", on the other hand, involves a trip through the farm-gate and into the market place, not only to determine what is going on, but also to influence events. It is a far more active occupation than merely being associated with the market place, or on-farm marketing management.*

Text-book definitions give us some clues about the activities which are associated with marketing. Most of them take the ultimate customer as their focal point. For instance:-

* It is perhaps necessary at this stage to emphasise that this distinction between "marketing" and "marketing management" is peculiar to agriculture. For the large food manufacturer, "marketing management" embraces all marketing activities. For example, the best known marketing textbook is titled, "Marketing Management: Analysis, Planning and Control" (Kotler, 1980, as in note (6)).

1. "Marketing is the process of determining consumer demand for a product or service, motivating its sale and distributing it into ultimate consumption at a profit." Brech, 1953 (1).
2. "Marketing is not only much broader than selling, it is not a specialised activity at all. It encompasses the entire business. It is the whole business seen from the point of view of its final result, that is, from the customer's point of view. Concern and responsibility for marketing must therefore permeate all areas of the enterprise." Drucker, 1954 (2).
3. "Marketing is the primary management function which organises and directs the aggregate of business activities involved in converting consumer purchasing power into effective demand for a specific product or service and in moving the product or service to the final consumer or user so as to achieve company set profit or other objectives". Rodger, 1965 (3).

It is not immediately apparent that these interpretations of marketing have much relevance to the individual farmer. The possibilities for him, as an individual, to "convert consumer purchasing power into effective demand" would seem to be very limited, if this is really what is being asked of him when he is called upon to "improve his marketing". Alternatively, an "improvement" might merely mean that he is being asked to upgrade his marketing management and become more adept at interpreting and reacting to the signals that pass through his farm-gate from the market place.

It is important to understand these distinctions because a call for "improvement" implies taking action. For this reason, we must try to determine what it is exactly that farmers are being asked to achieve by way of this "improvement".

In a perfect world (perfect from the businessman's point of view, that is) there would be no need for marketing or marketing management. Individuals or groups could produce exactly what they wanted, as much as they wanted, and be confident that consumers would come knocking at their door and carry away their produce at a known and stable price. Clearly this is not the case for any producer, for whom the environment is constantly changing and thus uncertain.

The reason why it is not particularly helpful to put forward marketing as a panacea to all of agriculture's problems, and in this case, farmers' problems in particular, is that a marketing solution must be addressed to a particular problem, and different problems arise at different levels in the industry. These problems work their way down to the individual farmer, and compound with his own problems as an individual businessman. Thus, it is necessary to determine to what extent a farmer should concern himself with the problems that are occurring downstream from him in the food sector and whether he can afford to merely be aware of them or whether they will eventually cause insurmountable constraints to the achievement of his own particular objectives.

The first step is to identify what the problems are, and where they occur. The way I have chosen to do this is to disaggregate the industry into three levels: the UK agricultural sector as a whole; the individual commodity sectors; and the individual farmers producing for the different commodity sectors.

MARKETING AND THE AGRICULTURAL SECTOR

Taking the agricultural sector as a whole, the problem is one which has long been recognised, and which is sometimes called the "farm problem". "The two most important factors affecting the prospects of farmers in advanced countries, it is said, are changes in the pattern of demand and technological improvements".(4) The source of the problem is that technological improvement has a propensity to cause increases in supply to outstrip increases in demand. This is primarily because of the low income elasticity of demand for food. (This means that, as consumers' incomes rise, only a small proportion of any increase is spent on food products). The upshot of this is that, in order to clear the market, real prices have to fall and, unless farmers move out of the industry, this will cause a downward pressure on farm incomes. For various reasons, no government has found this an acceptable or palatable situation for the agricultural industry - and they have directly intervened in the market, in one way or another, in order to reduce the fall in real prices. However, in recent years this solution to the problem has become more and more costly, and to maintain the same level of incomes to farmers is a burden which is becoming financially, and politically, unacceptable. Part of the reason for this situation is that the farm problem has never really been solved, and to some extent it has been exasperated, by the high level of support given to the industry which has caused supply to increase at an even greater rate.

So, when the Government, or politicians, call for an "improvement in farmer marketing", it is at least arguable that what they are really saying is that the solution which has been deployed for some time, ie using public money to support farm incomes, is no longer feasible, and thus it is up to farmers to "improve their marketing" - a euphemism for "do without the former level of government support".

This raises the question as to whether it is realistic to suggest that farmers should pass through their own farm gates, as it were, and become actively engaged in tackling the problem with marketing solutions? Supply is outstripping demand and thus the answer must be either to decrease the rate of increase in supply, or to expand consumer demand for British-produced food. The first alternative, that of slowing down the rate of increase in supply, is unlikely to be one that a farmer would undertake voluntarily. Even if all the agricultural producers in the UK combined, it is unlikely that they would be able to come to a binding agreement that everybody must limit their expansion in output by x% per year. (Attempts to control output at the commodity level by compulsory schemes have met with varying degrees of success and will be discussed later.)

At the sector level, there have been attempts via structural policy measures to encourage the rationalisation of agricultural resources and to give special aid to producers who, for geographical reasons, are disadvantaged, but the objectives of such measures have rarely been aimed at limiting increases in production in response to the 'farm problem'. The nearest that policy in Western Europe has come to adopting this solution was the ill-fated Mansholt Plan of 1968 which included a suggestion that a limited amount of land should be removed from production. A contemporary French plan, the Vedel Report (5), included a much more significant "land retirement scheme". In the USA, where land retirement schemes have been adopted, they have, however, always applied at the commodity level.

Expanding consumer demand would seem to be a marketing solution which is in the spirit of the earlier definitions of what marketing is about, with the consumer as the focal point. Unfortunately, there is an unsurmountable constraint to this solution, namely the capacity of the human stomach to increase indefinitely its intake of food. As consumers' incomes rise, they spend a smaller proportion of the increase on food than they do on other things, such as consumer durables or services. Part of the increase in expenditure which does go on food items is spent on either more exotic (and often imported) foods, at the expense of what are considered to be inferior foods, or on "value-added" to food, such as packaging, quality, or extra processing. I shall return to these points when looking at individual commodities - they are not relevant to the problem that there is very little scope for expanding the consumption of food as a whole.

MARKETING AND THE INDIVIDUAL COMMODITY SECTORS

So much for "improved marketing" as a solution to the problems of farmers at the agricultural industry level of aggregation. The next level to examine is that of the individual commodity sectors.

Let me anticipate the outcome of these considerations:

1. There are definite marketing solutions to the problems encountered within some individual commodity sectors, and therefore "improved marketing" is a feasible solution.
2. The important consideration is to what extent farmers should extend their expertise and energies in participating in these kinds of marketing solutions; or would it be more advantageous for them to leave these activities to other businesses in the marketing chain, and to rely on these to pass the information back from the market place to the farm-gate?
3. Because of the insurmountable constraint encountered at the agricultural industry level of aggregation (the limits of the human stomach), it may be inevitable that success in marketing for one commodity sector will mean a decrease in demand for the products of another sector. In other words, UK farmers will be competing with each other in the market place, although the

industry as a whole may be able to benefit to the extent that it succeeds against foreign competition in the various domestic commodity markets, and/or is able to increase exports.

The last point really defines the crux of the marketing problem so far as individual commodities are concerned. If there was only one food commodity available for consumption in the UK (for instance milk) then consumers, because they have to eat, would be forced to consume milk in one form or another. Thus, although there might be competition between - say - yoghurt-makers and cheese-makers, in order to entice consumers to eat and want more of their particular product, milk producers would face no competition and their need for marketing would be reduced dramatically. That is not to say that there would be no need for individual milk producers to engage in marketing activities, for they would be competing amongst themselves; but this aspect will be dealt with at the individual farmer level of aggregation.

For individual commodities, then, the major problem is competition from other commodities. In order to identify a marketing strategy with which to confront this problem, it is necessary to know what determines which commodities consumers choose, and how much of them they will choose to consume.

Some of the more important factors which determine the demand for a product include: price of the product (and more specifically, price of the product relative to what consumers see as substitutes for the product); average income and the distribution of income; the availability of the product; and consumer tastes and preferences.

These basic demand determinants have been developed, and expanded, in modern marketing theory to form what is known as the 'marketing mix.' The marketing mix is a set of controllable variables which an individual firm can manipulate in order to influence the level of demand for its product (6). For convenience these variables are often listed under what has become known as the "Four P's": product, place, promotion and price (7). The difference for many agricultural products is that there is no one organisation or group of individuals that can directly influence all of these variables - for each element of the marketing chain there is often a crucial element of the marketing mix which must be taken as given, and a marketing strategy for an agricultural commodity must work within this constraint, which is not so severely experienced by manufacturers of other consumer products.

This becomes clearer if we look, in turn, at each of the variables that influence demand.

Price

The price of most agricultural products is very much influenced by UK government or EEC policy, and in particular the level of price support afforded to the commodity under the CAP. The exceptions to this are most horticultural products, pigs, poultry, and eggs.

Thus the average price, price trends, and in particular the minimum market price, for most agricultural commodities is directly influenced by policy manipulation. This is important when those commodities affected by this support are competing with other products (ie substitutes in the eyes of consumers) which are not so influenced by price support, or which are subject to a lower level of price support - this is where relative prices become important. For instance, we have the substitution of margarine for butter. This substitution may be encouraged by other variables, but the price differential between the products is difficult to bridge because dairy product prices are supported by the EEC's CAP, whereas oilseeds (a major ingredient in margarine) have a different kind of price support, which allows market prices to reflect international levels. Another example is the substitution of cereals in animal feeds by "cereal substitutes" such as maize gluten, or manioc, combined with a higher protein commodity such as soyameal. (In the case of cereals, however, price relations have directly encouraged the demand for UK or EEC produced cereals, compared with cereals produced in non-EEC countries which face high minimum import prices before they can enter EEC markets).

A feature of many agricultural commodities, is their low level of price elasticity of demand. That is, increases in prices are matched by a lower proportionate decline in the quantity purchased. This is primarily because agricultural commodity groups as a whole have few substitutes in the eyes of consumers. Thus we see a low price elasticity of demand for potatoes - in the eyes of consumers, potatoes, in one form or another, still constitute an important element of their meals. One particular form of the potato which is gaining increasing acceptance from consumers is the processed form - this is the growth area in the potato market. As far as the processors are concerned, however, whilst there is no substitute for potatoes as an ingredient in processed potato products, there are substitutes for UK potatoes if they can obtain their supplies more cheaply elsewhere than in the EEC. Thus we have the disturbing fact for UK farmers that, whilst the consumption of processed potato products is increasing, so are the level of imports. The diagram below shows the situation for frozen potatoes since 1977.

This 'price constraint' in the marketing mix for agricultural products is not necessarily an unsurmountable problem - it is merely a constraint, and something which must be reckoned with when dealing with other elements in the mix. The fact that price is constrained by policy has also meant that many people regard "marketing" in agriculture as only to do with product quality and promotion, whereas price considerations are regarded as "policy". This is in contrast to industrial marketing where price is seen as an integral and central element in the marketing mix.

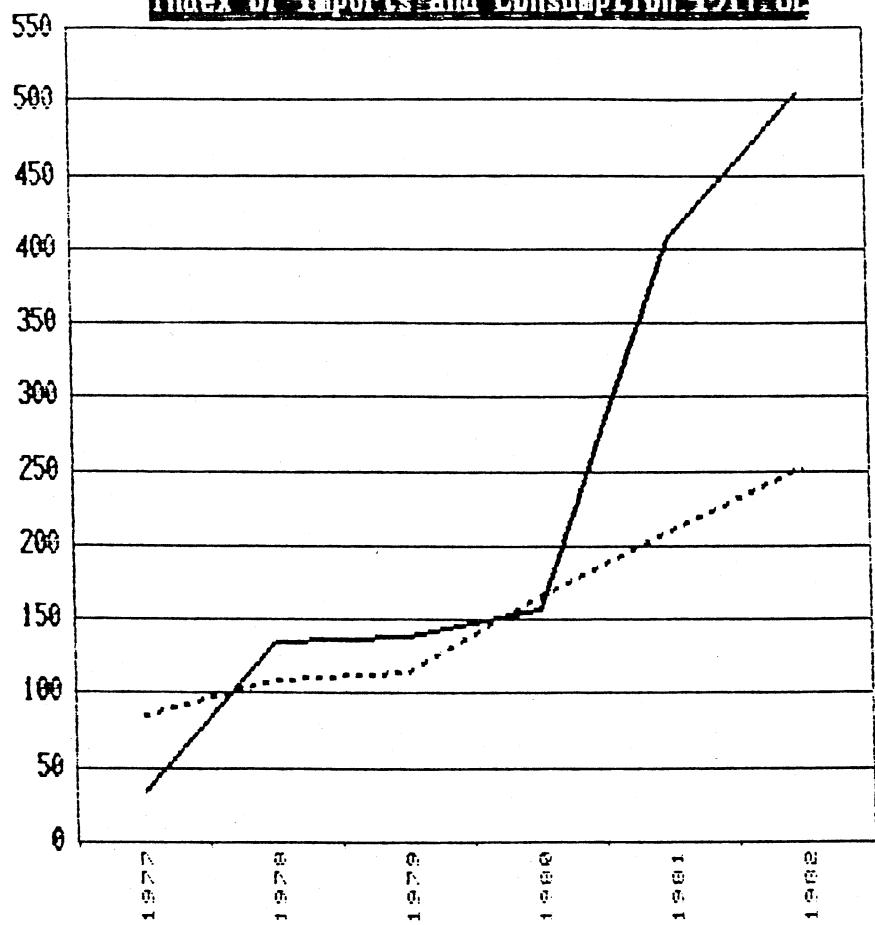
Availability

This is a more complex component than it might at first appear. It means more than "having a good available". Some of the implications of this component are that:-

Index

Frozen Potatoes

Index of Imports and Consumption 1977-82



LEGEND:

Index of imports

Index of consumption

NOTES

1. Average of 1977/78/79 = 100

2. Sources: HMS Stats Bulletins and MEFF Food Surveys (various)

1. The availability of a commodity, in terms of its supply on the market, affects price.
2. A product must be available in the form and according to the specifications required by the market.

It might seem something of a contradiction to say that availability affects price, after referring to the major influence of policy on price. Obviously, for products without government intervention, the link between the supply of a product and its price is more obvious - the recent plight and then recovery of the pig industry is an obvious example - but even for supported products, supply can affect both seasonal price patterns and price movements above the 'floor' price determined by agricultural policy.

Any large business will of course control its output, and the power to influence price by this means is greater, the greater the degree of monopoly power held by an individual business. Conscious manipulation of supplies of agricultural products onto the market is difficult, because of the fragmented structure of the farming industry and the problems of fluctuations in yields. As an individual, the farmer has little or no effect on overall supply (except in the case where there are only a few, large producers), and for this reason, the Government has, in the past, granted monopoly powers to different agricultural commodity sectors. However, these schemes have met with varying degrees of success and the potential for using marketing boards as a marketing solution is receding.

Until the UK's membership of the EEC, the Potato Marketing Board met with little resistance from farmers to the idea of controlling production by the use of acreage quotas. Since the lifting of the import ban in 1979, and the possibility of imports from other European countries, there has been some opposition from growers, as well as processors.

The Milk Marketing Board attempts to maximise revenue for liquid milk sales by acting as a discriminating monopolist, differentiating between the price for milk for liquid consumption, and milk for manufacturing. By controlling the quantity of milk for the liquid market, the Board has managed to attain a so called 'liquid premium' for sales of liquid milk. However, the sales of lower priced milk by producer/retailers, the increase in the price for manufacturing milk brought about by the imposition of the EEC's intervention system for dairy products, and the possibilities of cheaper imported liquid milk, as a result of the EEC's ruling on our ban on liquid milk imports, all put the Milk Marketing Board's monopoly power, and thus the liquid premium, under pressure.

The feasibility of introducing additional supply restricting schemes of a compulsory nature in the UK is now constricted by our membership of the EEC. However, the use of quotas by the EEC, as a means of limiting its financial liability to price support, has already been introduced for milk, and for sugar, and is being discussed for other commodities. There are clearly problems in agreeing on a fair allocation of quotas on such a supra-national scale, as well as

difficulties in devising suitable mechanisms for implementation and control for ten different national interests.

An alternative course of action in order to control availability, is to introduce some form of grading and minimum quality criteria. This is an important element in the CAP's attempts to support fruit and vegetable prices.

The obvious pre-requisite to such a scheme is some sort of classification system, and an appropriate grading scheme. A classification system is needed to distinguish the different physical attributes of any particular product, and a grading scheme can then be used to rank these different classes according to some market criteria.

The appropriate market criteria to use will depend very much on the objectives of the classification and grading scheme. From the producers' point of view, there are three potential objectives (8), two of which are demand oriented, the other supply oriented. The CAP's fruit and vegetable classification system is an example of a scheme introduced to limit the supply of a commodity coming onto the market, and thus to increase price for a given demand.

With demand-oriented schemes, the objective might either be to expand the total market, or to segment the market according to the demand requirements of different sectors of consumers, and thus to maximise total revenue for a given level of demand.

There are other potential objectives: for consumers the introduction of a classification and grading scheme may reduce the costs of searching for required product qualities; for wholesalers it might be to reduce the possibilities of waste; for the government it may be to facilitate bureaucratic manipulation of the market, as with EEC intervention and levies (see (8)).

It is important to recognise these three alternative objectives before evaluating or implementing any grading scheme. Thus, it might be quite feasible, under the EEC classification scheme for apples, for Class II apples to extract a premium over Class I apples. In a survey carried out in 1975 (9) at a "pick-your-own" enterprise in Ireland, it was found that when consumers were left to make their own quality choice of strawberries, only 3% of the strawberries picked met EEC standards and could have been legally sold in retail shops, despite an apparent abundance of "Class Extra" fruit in the fields. However, if the primary objective is to use a classification scheme to limit supply, the fact that an imposed grading scheme does not match consumer market criteria may not be that crucial. On the other hand, it may be a point of some concern in the longer-run for UK farmers if they are encouraged by an intervention scheme to produce commodities with physical attributes which are not demanded by the market, but which can be replaced by commodities from outside the UK which match market requirements more appropriately.

If the objective of a grading scheme is to expand demand for a commodity, or to segment the market in order to increase total revenue, then it is crucial that proper market research is carried out in order to match the grading scheme to consumer requirements. In addition to this, it is necessary to promote the attributes of the various grades or classes to consumers. Upgrading the general quality of all products in a commodity group in line with market demands, is one of the more obvious ways of expanding the total market for a commodity, especially if the UK product is competing with foreign produce. An alternative example of where a classification system might be used to expand the demand for a particular commodity would be an attempt to inform consumers of the different eating qualities of alternative varieties of - say - potatoes in an attempt to increase their usage of the product. It would then be necessary to ensure that the different varieties of potatoes were clearly labelled and available in retail outlets. Grading for market segmentation, and in order to increase total revenue, is a more complex marketing strategy, which requires not only quality control, as in the case of demand expansion, but also quantity control, as in the case of limiting supplies. If everyone produces AA1-type pigs, or Great Brit quality potatoes, the supply of superior quality produce will be increased to the point where there is no longer a price premium.

From the farmer's point of view there are at least three potential problems connected with such endeavours to respond to demand and increase their returns.

The first has already been touched upon. If the classification and associated grading scheme is not appropriate, either from the producer's point of view in terms of agronomical feasibility for instance, or from the consumers' point of view in not responding to their requirements, then it will break down.

Another potential problem is that the price differential between grades may not be passed effectively back to the farmer, either because the inevitable fluctuations in supply of agricultural commodities are confusing the price signals, or because other elements in the marketing chain are appropriating the premiums. The latter case is unlikely because the wholesaler and retailer must rely on the farmer to reproduce the characteristics of premium grades, and if this involves sorting by the farmer, or other extra production costs, he will only respond to the wholesaler's or processor's demands if the price compensates him for the extra effort.

As regards the former point, this can cause real difficulties for some products, given the vagaries of agricultural production.

Ensuring that only uniform qualities and grades reach the market is extremely difficult. The experience with potatoes delivered against futures' contracts is a case in point. This market has rigorous product specifications and procedures for inspection are relatively easy given the limited number of delivery points for potatoes delivered against future's contracts and the relatively small percentage physically traded on this market. For other agricultural commodities, or potatoes not traded on the futures market, the

multiplicity of potential trading channels and retail outlets, makes it difficult to impose grading discipline.

This point is linked to the third difficulty with grading systems for the individual farmer. Even if he is conscientiously observing grading standards for his products, if other producers are not, then "one bad egg" can ruin the benefits of a grading scheme if it loses credibility in the consumers' eyes.

The obvious reason why farmers might be tempted to slip through inferior products is that grading, sorting and packing all add to his costs. As an individual whose output is, perhaps, making only a marginal contribution to overall output, there is a temptation to let grading standards slip.

As far as the individual farmer is concerned, most of these problems can be overcome by organisational solutions. It requires an organisation to find out what consumers think they require from a commodity, how best to classify these requirements in terms of produce specification, a means of identifying and promoting the different grades and varieties to consumers, and an organisation to carry out regular inspections to ensure that the market is disciplined to meet these requirements. It might also be desirable to have a collective method of disposing of outgrades.

Various methods of organisation are already in existence to deal with this element of availability in the marketing mix. Most have some degree of farmer participation. Some exceptions are: milk quality criteria imposed by the Milk Marketing Board; intervention criteria imposed by the EEC; some fruit and vegetable grades imposed by the EEC; classification systems imposed by the EEC via the Meat and Livestock Commission; potato riddle specifications (and the Great Brit scheme), imposed by the Potato Marketing Board; and specifications for futures contracts imposed by the Commodity Clearing House. These schemes have met with varying degrees of success in terms of response by both producers, traders and consumers.

The organisational methods which have a greater degree of farmer participation are those organised by co-operatives or producer groups. In such cases, quality is communicated often via a brand name. The branding of agricultural commodities is a marketing activity that can be used for more than merely conveying a message of quality; the idea of brand loyalty is a fundamental principle in the marketing of any product. It is a relatively new concept in agriculture because it had long been argued that agricultural commodities were too homogeneous, within their own commodity groups, to be identified in this way. This is however no more true of, for instance, soap powder or baked beans, than it is of potatoes.

Contracts are another organisational method of ensuring the availability of a specified quantity of a product, at a specified time, of a specified quality. The degree of farmer participation in formulating the contractual requirements varies, often according to the degree of market power that the producer (or producers) have compared with the buyer. The desirability of contractual sales from

the farmer's point of view depends on the terms of the contract. But, given this proviso, they can be an effective means of overcoming some of the problems outlined previously. Very often the most contentious clause is the one on price, rather than the one referring to availability. However, with the growing influence of supermarkets in the procurement of agricultural commodities, contracts, of either a formal or informal nature, are becoming an increasingly popular means of disposal for agricultural commodities.

One very real problem with availability in terms of grading (or perhaps more accurately, upgrading) is that the more successfully this activity is pursued, the more likely it is that it will yield diminishing returns. The other problem is that, if grading is conveyed to consumers in the form of branding, then competition between brands is likely to increase and the success of - say - Elgro onions might be at the expense of, Fenmarc onions, as well as imported Dutch onions.

Tastes and Preferences

The manipulation of tastes and preferences is an activity which many people still mistakenly see as the sole marketing function - where marketing and advertising are seen as synonymous. Whilst this view would certainly not fit in with the earlier definitions of marketing, there is no doubt that taste and preferences are an extremely important variable in determining whether consumers will buy a particular product. Consumers' perceptions of a product, and the extent to which a product fulfills their requirements, will determine whether, and how much, of a product can be sold at a particular price, for a given income level.

To find out what consumers require, how they perceive your product with reference to these requirements and, thus, whether you should attempt to change the image of your product, (or alternatively persuade them that your product incorporates all that they desire - and more so than any possible substitute) is a complex, and often expensive task. Manufacturers of toilet paper spent nearly £8m on trying to persuade consumers to use their particular brand in 1983, whilst pet food manufacturers' promotional expenditure was nearly £30m (10). This can be compared with the £6.5 million available to the Meat Promotion Executive for promoting British meat.

It is not an activity with which farmers, typically, have been identified and as far as individual efforts are concerned, this is hardly surprising. There have, however, been attempts at encouraging farmers to take collective responsibility for market research and promotion of agricultural products which are purchased by consumers in a relatively unprocessed form (11). For instance, the activities of the Meat Promotion Executive, the Eggs Authority, and the Potato Marketing Board. These and other attempts have received mixed receptions from farmers and, when it comes to paying the bill for such endeavours, not all farmers have been over-anxious to contribute.

There are good reasons why generic promotion of agricultural products (of the form "eat more British potatoes", or "Great British Beef", which are attempting to expand overall demand for a commodity, rather than the market share of one particular firm) may not be particularly successful. For instance, demand for a foreign product may be inadvertently expanded rather than for the domestic product, or beef consumption might be successfully expanded at the expense of - say - pork. In addition, given the problems identified with the other elements of demand for agricultural products, and the way in which control and initiative in these areas is so fragmented, it is not surprising that there is some difficulty in communicating the results of market research back down the marketing chain to the producer, and for the producers to find it difficult to respond to the claims or images conveyed in promotional activities. Thus, farmers are not necessarily behaving irrationally if they seem unwilling to contribute funds to such schemes.

As far as buyers of agricultural products are concerned (ie processors, manufacturers, or retailers) they are, in the main indifferent to the source of a product; rather, they are interested in its relative price, quality and availability. If a group of producers can persuade such buyers that their product is superior to others in these aspects, then they have successfully promoted their product. As far as persuading the ultimate consumer to demand a particular product (or, more generally, but still of relevance to this discussion, to buy - say - British lamb, as opposed to New Zealand lamb), the onus lies on producers to promote their own products. With some of the changes taking place in the ways in which agricultural products are made available, and in particular in respect to branding, there are possibilities for more innovative and successful initiatives in this area. However, the scale of such ventures is often small in relation to the resources needed successfully to promote a product on a national basis, although their size may not preclude them gaining some degree of regional loyalty for their products.

The Government has tried to assist in this area recognising of some of the special problems of agricultural products. The Meat Promotion Executive, the Potato Marketing Board, the Apple and Pear Development Council and the Eggs Authority are all agencies which are engaged in promotional activities and which receive part of their financing either through the provision of a compulsory levy, sanctioned by government legislation, or direct from the Government. It could be argued, however, that they have only achieved limited success in these areas, and that the main reason for this is that they have so little control or influence over the other elements in the marketing mix. The major success stories in promotion are those which have the advantage that the promotional activities have been combined with an overall marketing strategy, and that there has been some element of control over the other marketing variables. (For example, Danish Bacon, where production, processing, exporting, promotion, pricing etc, are all centrally organised.)

A commendable feature in the Government's latest endeavour to improve agricultural marketing, Food from Britain, is the availability of funds for production groups to carry out research and promotional

activities for themselves. Obviously these governmental resources have to be combined with the calibre of management that can actually use them effectively - which, unfortunately, is another problem that might be catalogued under "contemporary agricultural marketing problems".

Farmer Participation

There are, therefore, specific marketing problems associated with agricultural commodities because of the nature of the individual products, the structure and unpredictability of production, and the organisation of the marketing chain.

Whilst for some commodities there are examples where some of these problems have been overcome and marketing solutions have been successfully implemented, there are many cases where this is not the case. The problem of organisation and fragmentation of marketing decisions involves deciding the extent to which farmers should become actively involved in making marketing decisions which, essentially, take place, outside their own farm-gates.

It seems quite obvious that, if there is so much inter-dependence between the variables which influence demand, farmers must either passively supply a product to an organisation (within which all marketing decisions are based) but which may be indifferent to whether it purchases its requirements from the UK or abroad, or they must become more closely linked with the market, either through producer groups, co-operatives or contracts. Whilst production groups and co-operatives could be expected to give a greater degree of autonomy to farmers (over both production and marketing decisions) than contracts, on the whole, contracts are easier to operate (once they are successfully negotiated!) from the organisational point of view.

The final point as far as individual commodity groups are concerned is that, because of the substitution factor, the success of - say - lamb producers might well be at the expense of beef producers, or dairy producers, depending on the substitute; this is in addition to the increased competition within commodity groups. It is ironic that, with indifferent marketing for UK agricultural commodities, the main competition for UK producers comes from foreign commodities, but as UK agricultural marketing improves, additional competition from other UK commodity producers, and producers within the same commodity group, also enter the scene.

Thus, the conclusions as far as individual commodity sectors are concerned are that there are problems which can be classified as "marketing problems" and that these can be overcome by "improved marketing". Improved marketing in this area would seem to imply a greater degree of farmer participation, so that communication along the marketing chain is improved and marketing claims for agricultural commodities can be taken with full consideration of the constraints and influences of all factors in the marketing mix. Because of the organisational constraints imposed by the structure of production for

agricultural commodities, this involves farmers taking decisions over the merits of various forms of collective action [whether organised by themselves, or in conjunction with commercial firms (such as joint ventures or various types of contracts), or run by the government].

If this process were carried to its logical conclusion, it would imply farmers producing for a specific market, since most forms of collective action require a degree of commitment over assurability of regular supplies. Flexibility over outlets, product presentation and the products to be marketed, would arise only through collective decisions. This would put individual farm businesses on a par with many other small business since, for most small businesses, production takes place with a specific market and quite often a specific market outlet in mind (12).

However, in many ways, and for some commodities in particular, this is a rather futuristic view of the way which agricultural marketing should develop. At present, the individual farmer often has a much greater degree of input into marketing decisions, and thus we can go on to examine farmer marketing at the "individual farmer" level.

INDIVIDUAL FARMER MARKETING

Earlier we made a distinction between "marketing" and "marketing management" - the former being a more active management role taking place beyond the farm gate, and the latter more a case of reacting to signals as they reach the individual farmer.

Farmers have often been accused of being production-oriented, rather than marketing-oriented. In fact, many farmers do not distinguish between the two forms of activity, and there is some ambiguity over what is considered a production decision and what constitutes a marketing decision on the farm.

It could be argued that all decisions regarding what to produce; how much to produce; the method of production; when to produce and when to sell; and to whom in what form, and how; might all be regarded as marketing decisions, and that both short and long-term planning could be appropriately included in marketing activities. Whilst this view is defensible, it is not particularly helpful if farmers are asked to improve their marketing, or more accurately, marketing management. For, under this definition, it is tantamount to saying, "improve your business" - a rather vague instruction with not particularly helpful connotations.

Thus, at the individual farmer level, we must decide what constitutes a marketing decision, what problems could conceivably be addressed by marketing solutions, and whether there is a need for farmers to improve their marketing.

A farmer's business is concerned with producing agricultural commodities and selling them (this is the basis of a farmers' business, although many have important subsidiary activities such as

the provision of recreational facilities etc.) Marketing management is concerned with the selling side of the business, but this includes producing goods to sell. Thus, decisions over what to produce should be included as an individual farmer's marketing activity, as well as decisions over the disposal of products. Disposal includes choices over the form and presentation of the product, how much to dispose of, when, to whom, and where. The decisions regarding how to arrive at this point (for instance what inputs to use, and when, capital input, labour requirements, precise rotations, breeding policies etc.) whilst dictated by marketing decisions, are production activities.

These on-farm marketing decisions are basically tactical decisions in so far as they involve re-acting to a given environment, whereas the marketing activities discussed in the previous section would be more appropriately called strategic decisions (13).

The accusation that farmers are production-oriented thus implies that, whilst they are proficient in the agronomics of crop growing and in livestock management, they do not take enough care over deciding what to produce and how to dispose of it. This criticism has been expressed in one form or another, by government spokesmen, by independent observers, but more often it is a complaint put forward by first-hand buyers of farm produce - merchants, processors, manufacturers and retailers.

An alternative but connected point of view is that the Common Agricultural Policy has taken away the necessity for farmers to market their produce anyway - since they have a guaranteed market for most products. (It was also often said (wrongly) that the CAP system put more of an onus on to farmers to market their produce effectively than did the old UK deficiency payment system.)

Complaints from first-hand buyers usually refer to the availability, quality and price of produce. As far as the individual farmer is concerned, the first-hand buyer is the consumer and, if he wishes to expand consumer demand for his own produce, he must produce what the customer wants.

If a farmer is not doing this, we must look for possible reasons. Included in the list might be:-

1. Farmers are not astute businessmen and allow tradition to mar their marketing performance.
2. Farmers are more interested in leisure, or some other objective, rather than profit maximisation.
3. Farmers do not have adequate information on which to base marketing decisions.
4. The effort required to respond to the requirements of the market are not repaid by the marginal increase in profit as a result of this extra effort.

Taking points 1 and 2 first, the entrepreneurial skills of farmers, whether they be directed towards financial management, marketing management, production management, labour management, or whatever, will obviously vary from person to person. The interests, expertise and abilities of individuals are bound to differ. There seems to be no evidence, however, to suggest that farmers as a group are less able to manage their business affairs than other businessmen. There may be some truth that some farmers, whatever their entrepreneurial skills, put profit maximisation lower on their list of priorities than other objectives, but if this is the case there seems to be no logical reason why marketing management should be singled out from the other management processes for a lower level of priority. If this is the case, then a change of attitudes is required before farmers can be cajoled into improving their marketing management (or, for that matter, their production management). This change of attitudes may be forced on these farmers if levels of price support are reduced in the future.

If there is no evidence to support point 1, and reason to believe that even if point 2 is relevant today for some farmers, it will soon become inapplicable, we must look to the latter two points as to why farmers may not be meeting market requirements.

Finding and using appropriate information on which to base marketing decisions is a crucial activity for any business. For farmers, there are particular problems in both using information, and interpreting it. Some of the reasons for this are:-

1. Production is not altogether predictable - it is not merely a matter of mixing the right ingredients in order to get the required product, of the required quantities, at the required time.
2. Many agricultural commodities are perishable.
3. There is a time-lag between production (based on the prevailing market conditions, and best estimates of future conditions) and disposal (when market conditions may have changed in an unforeseen manner).
4. On a national or even regional basis farmers take production decisions independently, but market conditions, when the time comes for disposal, depend on the outcome of all farmers' production decisions taken together.
5. The prime mechanism for conveying market information to the farmer is price. But the price mechanism may not always be an efficient mechanism for relaying such information:
 - (i) Prices may fluctuate in a manner which is difficult to interpret and in a way which causes problems for even short-term, let alone longer-term, predictions about the market.
 - (ii) Price levels, and in particular, price levels compared with foreign produce, may be affected by variables such as

government intervention, MCA changes, or green rate changes. The individual farmer has little room for manoeuvre if these factors combine to put him in an uncompetitive position vis-a-vis other foreign producers.

(iii) First-hand buyers may also be confounded by the messages conveyed by the market, or they may find themselves treating their suppliers inconsistently over time due to short-term expediencies involved with re-acting to overall levels of demand and supply, what their own customers require, how much of a commodity is available, and the general quality available.

The problems of unpredictability of production, and the perishability of the final products, are being assisted by technical developments. New innovations in plant and animal breeding, the availability of agro-chemicals, improvements in methods of presentation, storing and packaging, all assist in this area. Implementation and adoption of the techniques by farmers where appropriate is obviously required in addition.

The time-lag between production and disposal does cause problems. The problem can be alleviated to some extent where storage methods have been improved due to the adoption of new technology. The use of futures markets and contracts can also help to insure against future adversities in the market before a product is ready for disposal.

Deficiencies in the price mechanism, and the problem that farmers make production decisions as individuals, have both been recognised for some time as major agricultural marketing problems. Provisions for market intelligence have been made through such agencies as the Eggs Authority, Meat and Livestock Commission and Home Grown Cereals Authority, the publication of Outlook reports from Universities and Colleges, and interpretation of such sources, as well as other market viewpoints, which are widely reported by the farming press, radio, and T.V. The problem for many farmers is that this information is ex-post and, because of the unpredictability of agricultural prices, is not therefore always a good indication of future market events.

The Government or the EEC, as has already been explained, does intervene in the pricing mechanism for many agricultural commodities. Although the primary objective is to support agricultural incomes, there is a secondary objective, which is to stabilise agricultural commodity prices, in an attempt to iron out short-term fluctuations which are the result of short-term 'upsets', rather than longer-term 'trends'. Unfortunately, the desire to maintain agricultural incomes has meant that prices have been supported at a level which conceals trends, and yet has not been altogether successful in smoothing-out fluctuations. Although farmers as individuals very often have little influence over such price trends in the market, an important marketing implication of the above discussion is that they must be aware of all the factors that could be, and which currently are, affecting the price of their products, both in terms of the average market price, and the price offered in their own locality.

The other corollary of these market features for agricultural commodities is that many farmers are not prepared to commit themselves psychologically to producing for a particular market or market outlet - even if they end up selling to the same merchant each year. For whilst price instability and uncertainty can imply unforeseen losses, it can equally imply unforeseen gains. A study of farmers' attitudes to marketing, carried out in 1978 (14) demonstrates this point rather well. 215 farmers were asked to rank 10 different statements concerning the disposal of their produce, in order of importance. The two most important statements, according to the respondents were:-

"It always pays to plan everything well ahead",

and

"It pays to study recent prices and sell where they are highest",

thus implying a flexible policy towards choice of outlet rather than always producing for the same market outlet.

The statement ranked third in importance, however, was

"chopping and changing about is a very dangerous business"

a statement which warns against the possible dangers associated with using different outlets.

This ambiguous approach towards the market outlet for which they are ultimately aiming may well be reflected in the producer's product. The fact is that it may be uncertainty, rather than technical constraints, which is the cause of some agricultural products not being matched to the requirements of the market when they are ultimately presented for disposal. This point will be returned to when we look at the necessity of marketing management for products with a heavily protected market.

Price uncertainty may also be the prime cause of inconsistency by first-hand buyers in their dealings with farmers. They require a certain quality of a standard product, but their definitions of "certain quality" and "standard product" will obviously depend on the current price and how they expect future prices to move. Thus, both farmers and merchants allow for the fact that part of their marketing management will depend on their own, and others, views of the market, and since there is some uncertainty in this respect, there may be a large element of marketing management which is left to chance, since there seems no other satisfactory means on which to base decisions.

Inadequate information, then, would certainly seem to be a cause of inefficiencies in farmer marketing. The main problems seem to be in the difficulties of interpreting market intelligence based on historical events, and in price uncertainty and the way it affects both seller and first-hand buyer of agricultural products.

A practical solution has already been suggested - farmers must acquaint themselves with all the variables which might affect the market for their product and use this knowledge to interpret current market developments and likely future ones (and additionally to use the knowledge critically to appraise the actions of other commentators on product markets).

The problem of price uncertainty and its consequent implications for buyer and seller behaviour is more serious. The use of forward and futures contracts is one way of overcoming some of these problems - although price determination for a forward contract in an uncertain market can be extremely difficult. Some farmers have found that "cutting out the middleman", whilst not necessarily removing price uncertainty, has, for some reason, overcome some of the psychological problems associated with choice of market outlets, and many large farmers are now willing to commit quite large proportions of their produce to, for instance, supermarkets, or their own farm-shops, or own marketing enterprises.

On the other hand, price uncertainty has also possibly been one of the reasons why marketing co-operatives have found it difficult to achieve any real level of commitment from their users - since for the individual producer, there is always the possibility of better prices elsewhere.

The final reason put forward as to why farmers might be open to criticisms about their marketing management was the possibility that there is no financial incentive for them to improve it. For example, the premium for milling wheat or malting barley might not be sufficient, for many farmers, to justify them growing these crops. An important consideration here is that it is precisely because not all farmers go for these quality markets that there is a premium for malting barley or milling wheat. There is a real danger that, as the EEC begins to tighten up on the grain market and puts pressure on intervention prices, more farmers will be tempted to try either milling wheat or malting barley, and the premiums for these crops will be reduced. Or, on the other side of the coin, when the intervention market for grain became a relatively attractive alternative for UK farmers, in terms of a premium over other outlets, it did not take them long to learn to produce for this market, as is clear by the reduced rate of rejections into intervention over successive seasons.

Complaints about, for example, poor quality potatoes, are countered by farmers on the grounds that the market does not provide them with a reward for upgrading the quality of their potatoes. For some farmers this is not true: there are high grade UK potatoes available on the market (in terms of size, standardisation, presentation, and appearance) so it is a profitable market for some farmers. Sometimes, because of the problems with agricultural prices as relayers of market information, financial rewards from the market for better quality potatoes might be distorted to an extent that farmers can not adequately receive the message. It is also sometimes argued that 'the middle-man' is not passing market premiums back to the farmer. But, clearly, if the middle-man can make a better profit from selling high quality potatoes, he has got to obtain them from somewhere. It might

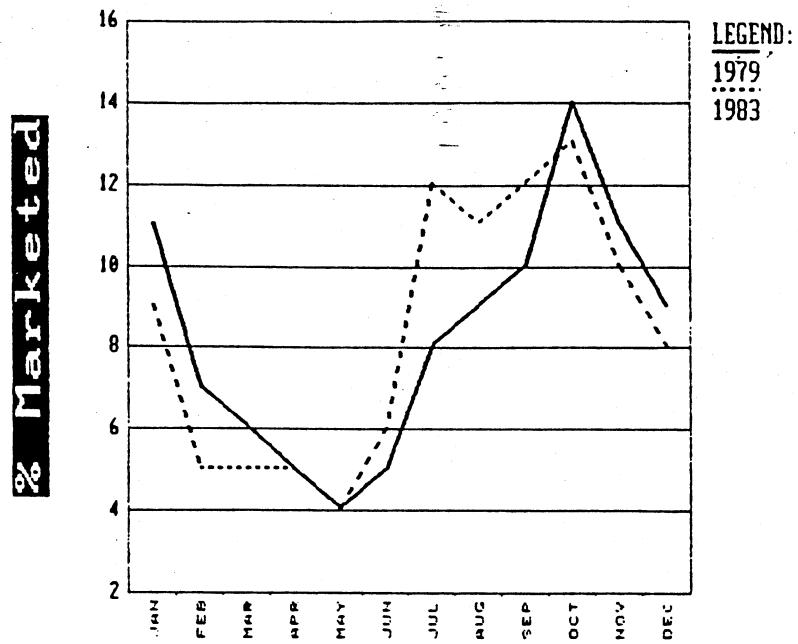
be argued that for some products, the degree of market power exercised by either the 'middle-man' or the retailer does enable him to obtain a disproportionate amount of the final selling price in the form of his marketing margin - at the expense of the farmer - but this is likely to be true across the board for any particular commodity, in terms of both higher and lower quality produce, and thus, in order to obtain higher quality produce, the buyer will still have to offer a relative incentive to the producer.

There will be cases of individual farmers not exploiting an opportunity for more profitable margins by producing for a higher quality market; and there may well be potential 'gaps' in the market which are not exploited or which have not yet been created by farmers or by commodity sectors. For example, there may be a handsome profit to be made on 'mini-apples' if consumers decided that they want them enough. However, this is more a case of using marketing to create financial incentives for the farmer to produce higher quality (or different) products, and has been discussed in the section on individual commodities.

It would seem, from the arguments put forward here, that the main constraint on farmers improving their marketing management is that they do not have adequate information on which to base their marketing decisions. If the farmer is sitting on his farm, waiting to re-act to signals coming to him from the market, he may well find that these signals are inaccurate, out of date, and impossible to interpret or, perhaps, that everybody else has received a similar message, re-acted in the same way, and thus all his well-planned calculations are upset. This would seem to indicate that marketing management, as opposed to marketing, is at best a risky occupation, if not downright impossible, and that the admonishments to 'improve' it are unrealistic and unfair under present circumstances. Having said this, it is worth remembering two points. The first is that other businesses, apart from farming, face similar problems (although it is argued that the degree of uncertainty is particularly acute for agricultural products); and the second is that, despite the apparent, almost random element in marketing management, there are some producers who are good at it, and certainly some who are consistently better than others.

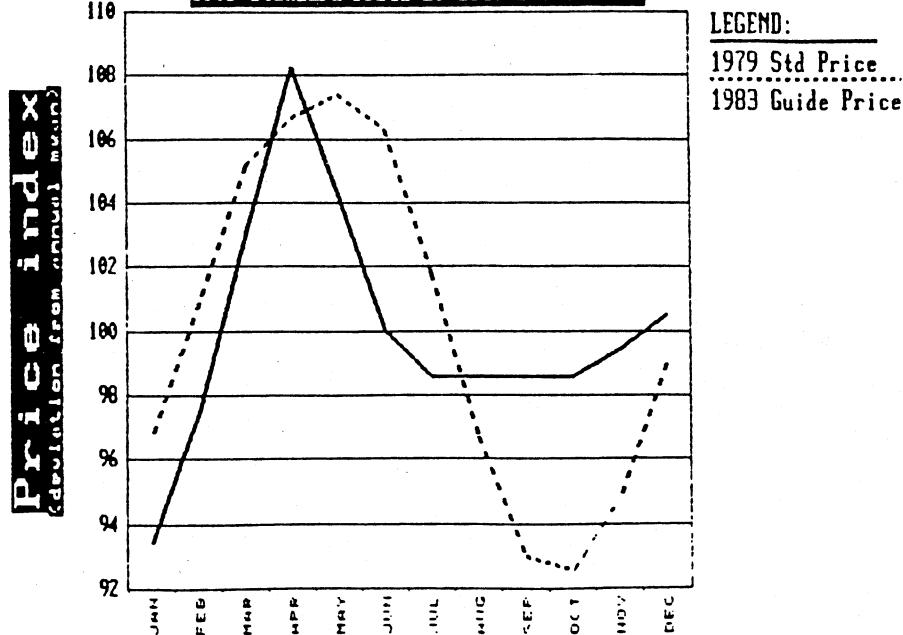
The severity of the market information problem is only slightly diminished for foods which are heavily supported by the CAP - and with the current situation where the EEC is desperately looking for economies in expenditure, there is an additional element of uncertainty because future prospects for many CAP commodities depend upon institutional decisions, rather than market conditions, which means that ex-post market information is even less applicable (15). The claim that the previously high levels of CAP support have taken away the necessity for good marketing management is inaccurate. Although it is true that the levels of support have encouraged some farmers to be less rigorous about, for instance, their choice of outlet, and still survive quite comfortably, for many farmers, the choice as to whether to produce for - say - intervention, is still a conscious marketing decision, with the assumption that intervention gives a higher margin than any other outlets.

UK LAMB MARKETINGS



SEASONAL PRICES

1979 Standard Price of 1983 Guide Price



Another example concerns the seasonal scale for lamb prices under the CAP, where farmers have had to adopt their marketing management so as to match their production to the pattern of the guide price. The fact that fat lambs have to be certified before they receive the variable premium enables us to keep track on the seasonal pattern of marketing. The graph opposite shows how UK farmers have changed their marketing decisions in response to changes in the seasonal pattern of support prices - the Standard Price in 1979 and the Guide Price in 1983. A larger percentage of lambs were marketed in June/July 1983 in order to avoid the relatively greater decline in the Guide Price, compared with that of the Old Standard Price, later in the year. Changes in the pattern of the Guide Price over the last few seasons have met with similar responses by farmers in an attempt to match their sales with the most advantageous level of price. Thus, the majority have not been content to sit-back and collect their variable premium without first adapting their management to ensure that they collect the maximum total return.

CONCLUSIONS

This paper has attempted to obtain a clearer understanding of the marketing problems confronting UK agriculture by examining the industry at three levels of aggregation: the agricultural industry as a whole, the individual commodity sectors; and the individual farm business.

"Improved marketing" has little to contribute as far as the structural/technical problems of the agricultural industry as a whole are concerned. At the micro-level, although some farmers as individuals could improve their returns by upgrading their marketing management, farmers are not necessarily acting irrationally by failing to commit their produce to a particular market segment when production decisions are taken, given the present institutional and market intelligence constraints.

At the individual commodity level, many of the problems which are currently being experienced could be overcome by an improvement in marketing. However, there are impediments to these marketing solutions, the primary one being the organisational constraint.

Because of the nature of the marketing chain for agricultural commodities, many marketing decisions, which are essentially interdependent, are made and executed by different elements in the chain. Communication and response is made difficult by the large numbers of potential buyers and sellers supplying the final consumer. Increasing concentration amongst the buyers of the UK farmer's output and competition from EEC suppliers make it essential that UK producers ensure that they are not only receiving the correct information about market requirements but also, because of the nature of agriculture production, that they are receiving this information as far in advance of likely changes and developments as possible. This means that they must become actively involved in marketing (beyond the farm gate) as well as marketing management (behind the farm gate).

NOTES AND REFERENCES

- (1) Brech E.F.L. Principles of Management. Longmans, 1953
- (2) Drucker P.F. The Practise of Management. Harper and Row, 1954.
- (3) Rodger L. Marketing in a Competitive Economy. London Associated Business Programmes. 1965.
- (4) Ritson C. Agricultural Economics, Principles and Policy. London. Granada, 1977.
- (5) "Perspectives a long terme de l'agriculture française", Ministere de l'Agriculture, Paris, 1969. For a discussion of the Vedel Report, see Marsh J. and Ritson C. Agricultural Policy and the Common Market, Chatham House: PEP, 1971, pp.154-155.
- (6) For a fuller discussion of the 'Marketing Mix' see: Kotler P. Marketing Management, Analysis, Planning and Control. New Jersey. Prentice-Hall. 1980 (Fourth Edition) pp 88-90.
- (7) A classification popularised by E.J. McCarthy in Basic Marketing: A Managerial Approach. Illinois. Richard D. Irwin, 1978.
- (8) Bowbrick P. The Economics of Grades. Oxford Agrarian Studies XI, 1982.
- (9) Bowbrick P. Evaluating a Grading System. Irish Journal of Economic and Rural Sociology 7, pp117-126, 1979.
- (10) Figures for Media Expenditure. Analysis Ltd. (MEAL). Quarterly Digest of Advertising Expenditure. London, 1983.
- (11) It is interesting to note that it would be unusual for a commercial manufacturer to ask farmers for a contribution in order to investigate consumers' requirements and perceptions of - say - beefburgers, and yet an expansion in demand for beefburgers could mean an expansion in demand for UK beef. The exception here is the milk co-responsibility levy, which is collected from farmers and channelled to manufacturers for the promotion of milk products.

(12) In 1971 the Bolton Report (Small Firms:Cmd 4811) found that over 35% of the firms they surveyed committed more than 25% of their produce or service to one customer. A report in the FT (19 June 1984: A Pricing Policy that will not lead to the wall" David Sutton) claims that "... increases in buying efficiency, the diminishing power of the small supplier and the effects of the recession, make it certain that both of these percentages are much higher now".

(13) The Concise Oxford Dictionary uses military examples to illustrate the meaning of both 'strategic' and 'tactical'. The distinction is that, whilst tactical manoeuvres are carried out in "immediate support" of a situation, strategic manoeuvres are designed to "impose upon the enemy the place, and conditions for fighting preferred by oneself".

(14) The Importance of Marketing Management to the individual Farmer. John Baker. Unpublished Phd Thesis 1980. Department of Agricultural Marketing, Newcastle upon Tyne.

(15) A discussion of some of the factors that might influence the decision-making process for EEC prices is contained in Ritson, C. Forecasting EEC Support Prices. Discussion Paper 2, Department of Agricultural Economics and Department of Agricultural and Food Marketing, the University of Newcastle upon Tyne, 1982.

The Department of Agricultural Economics and the Department of Agricultural and Food Marketing launched a new series of Discussion Papers in the Spring of 1982. The titles available are:

DP 1 Evaluation of 1982/83 Price Proposal for the CAP
Kenneth Thomson and Lionel Hubbard

DP 2 Forecasting EEC Support Prices
Christopher Ritson

DP 3 Cereals and the CAP
Kenneth Thomson

DP 4 CAP Budget Projections to 1988
Kenneth Thomson

DP 5 Herd Size and the Impact of Reducing EEC Dairy Support Prices
Lionel Hubbard

DP 6 The CAP for Fruit and Vegetables: Its Impact on Third Countries
Christopher Ritson and Alan Swinbank

DP 7 The Urban-Rural Income Gradient and the Pressure of Demand on Labour
Martin Whitby and Lionel Hubbard

DP 8 The 1984/85 CAP Price Proposals: An Evaluation and Some Observations
David R. Harvey and Kenneth J. Thomson

DP 10 Agricultural Marketing: Its Relevance to the UK Farming Sector
Rosalind Warren

Forthcoming:

DP 9 EEC Agricultural Trade Policy
Allan Buckwell

DP 11 The Management of Heather on Common Land for Grouse and Sheep
Michael Topham

DP 12 The UK and the CAP
Kenneth Thomson and Paul Hayden

These papers are priced at £2.00 each (including postage and packing in the UK and Eire) and are available from the Department of Agricultural and Food Marketing, The University, Newcastle upon Tyne, NE1 7RU, or by telephone on Newcastle (0632) 328511 extension 2932 (Agricultural and Food Marketing) or 2900 (Agricultural Economics). Please make cheques payable to The University of Newcastle Upon Tyne and send to the Department of Agricultural and Food Marketing.

