

Marketing, modernising factor in agriculture

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Summary

In this paper it is tried to indicate how the need for a modern marketing approach is influencing agriculture today. Agricultural markets have become very dynamic and marketing of agricultural products cannot limit its task to an efficient way of transport, storage, grading and credit delivery. Dynamics of today make an efficient use of the marketing mix — product, price, promotion, distribution — the central issue of agricultural marketing. A description is given how the marketing mix can be used in marketing of agricultural products and what problems show up in this respect. Changes in agriculture which are necessary in order to do a good marketing job are pointed out:

- a) The need for centralization of decision making with respect to the instruments of the marketing mix, requires vertical integration between farmers — middlemen — industry — retailers, and horizontal integration between farmers.
- b) Mass merchandising of today requires a large homogeneous supply which favours specialization in farming.
- c) Use of the marketing mix has to be based on knowledge of the market. This implies an appropriate use of market-research. Also up to date product-research should support the marketing strategy.

Marketing in agriculture; historical development

Marketing in the sense of comprising the operations involved in moving products from farmer to consumer is by no means new in agriculture. Some kind of marketing is existing as long as farmers are producing for the market. Marketing of agricultural products remained for many centuries primitive since most agricultural products were until the 19th century sold in regional and local markets. Certainly there existed already centuries ago some international trade in agricultural products like for instance the mediaeval grain trade from the Baltic countries. However, a large specialisation between consumption and production areas with respect to agriculture just started with the industrialisation of western world and the development of specialised grain producing countries.

It seems that in the 19th century marketing efforts in agriculture were concentrated on problems of transport and storage and the development of an efficient system

¹ This paper is a slightly different presentation of a paper presented at the International Congress of Marketing and Distribution, Paris, 1966.

of central and regional markets. Wholesalers buying from farmers at local markets and selling in central markets were at these days the important link in the marketing system. They performed the marketing functions of storage, transport, grading, sorting and credit delivery in order to realise a smooth flow of products from farmer to consumer. Other marketing instruments like advertising and product development were not used at all or in a very limited way. Amongst others, this was not the case since techniques for applying these marketing instruments were not developed so well in the nineteenth century. More important in this respect seem the unsaturated demand and low buying power of the consumer at that time. As a result of the low buying power the consumer was not very quality conscious either. Therefore it is not surprising that most farmers just produced and left the marketing job to the middlemen. However, the fact, that wholesalers at times could act from a monopoly position against the farmer stimulated him to integrate wholesaling and processing functions through cooperatives.

Developments of agricultural markets gradually forced farmers to take more interest in marketing. For instance in the U.S.A. during the depression of the thirties not only marketing orders and agreements were set up to restrict production, but also funds were raised for promotional campaigns. Marketing channels were more critically evaluated and serious attention was paid to grading and sorting; comparable developments may be noticed in many other countries. These developments were forerunners of today's situation in which marketing has become a central issue for agricultural planning. It is the continuous need for balancing demand and supply which makes marketing so important at the present time. Due to many reasons supply as well as demand show a dynamic development which seems to have become a permanent characteristic of agricultural markets.

Increase of productivity and also national agricultural policies have stimulated production in many countries. So for instance agricultural production in E.E.C. countries increased from 1956/1957 to 1963/1964 with 21% while population has grown only 7.4% during the period 1956 to 1963 (Ref. 1). This expansion can be observed for traditional products like dairy products, wheat, but even more for many 'new' products, like broilers. Another feature of supply is a rapid change of products amongst others as a consequence of new breeds and processing methods.

Demand for agricultural products is changing: a) because of increasing buying power of consumers, b) because of a shift in consumers' wants and needs, c) because of tremendous developments in the marketing system, especially in retailing, and the increasing importance of processing.

So the agricultural market of today makes great demands on marketing efforts. It is not enough now to push efficiently to consumers, what farmers offered for sale. It is necessary as well now to find out what consumers are looking for and to change production according to these needs. Also one should win the consumer to new products unknown to her yet. Adjustment of demand and supply in this way cannot only be realised by efficient distribution and pricing. Other instruments of the marketing mix, product and promotion have become crucial in agricultural marketing as well. The last two instruments were not completely neglected in earlier times, but they have become of greater importance.

In order to indicate how marketing is modernising agriculture, some changes in agricultural markets will be elaborated first. Afterwards it will be illustrated how the marketing mix can be applied to these new developments; finally it will be shown how an up to date marketing policy is modernising agriculture.

Changes in agricultural markets

Changes of demand

Consumers. Shifts in consumer behaviour are determined by the increasing disposable income per capita and socio-psychological changes of consumers. Per capita gross national product in the E.E.C. and the E.F.T.A. increased during the period 1953–1964 yearly with 4.4% and 3.0%, respectively (2). However, expenditures for food become a decreasing proportion of total expenditures when income is increasing. In The Netherlands expenses for food and beverages as a percentage of total expenditures decreased from 41.2% in 1952 to 35.9% in 1963; in the United States, the share of food, beverages and tobacco in total expenditures decreased from 30.6% in 1950 to 25.9% in 1962; in the United Kingdom food expenditures as a percentage of total expenditures decreased during the period 1953 to 1963 from 31.2% to 27.4% and a comparable development can be observed from family budgets in West-Germany: in 4 person families of labourers expenditures for food were 46.4% of total expenditures in 1950 and 34.6% in 1963 (3). This decrease is expected to continue in the near future². There are many reasons for this behaviour. A great section of the food assortment belongs to so called necessities whose demand is inelastic with respect to income. Also one has to keep in mind, that the saturation point for food, with respect to quantity, is reached already in many countries. Therefore an increase in sales of a specific product, say beef, has to be realised often by substituting another. From the nutritional point of view food intake will shift to more animal proteins and vitamins. This development may be observed already in food balance of the E.E.C. countries; in the period 1961/1962 to 1963/1964 the consumption of animal proteins per capita increased with 7% (5). A congruent development in the production of protein-rich agricultural products may be observed. For example during the period 1957 to 1963 production of poultry meat increased in E.E.C. countries with 72.2%, production of eggs with 27.8% and production of beef with 32.1% (6). In the U.S.A. this development is even more pronounced; per capita consumption of animal proteins in 1962/1963 is about 41.0% higher than in E.E.C. countries in 1963/1964 (7).

It is generally observed that the income elasticity of food with respect to expenditures is higher than with respect to quantity. For instance, while in the United States income elasticity for food amounted to 0.12 in 1955, food being measured as per person use of farm foods from all sources, it was 0.37 when food was measured as all food and beverage expenditures per person (8). When income is increasing consumers often are not buying more quantities but more expensive food, being of better quality with respect to taste, color and shape. But especially important in this regard is the high income elasticity of marketing services bought with food — for the United States in 1955 0.42 (8). Easiness of handling of storage and of preparing food are greatly appreciated by housewives. Also in many countries consumption of food away from home is increasing; so city workers in the United States spent in 1909 only 3% of their food and beverage budget away from home, but today about 20% (9).

In order to meet consumers' desire for more variety a greater assortment in food will be needed. Unfortunately because of specialisation and large scale farming there

² For the period 1960–1970 it is forecasted (4) that the share of food in total expenditures will decrease in Belgium from 26.3 to 15%, in France from 30.6 to 25.2%, in Italy from 42.7 to 36.5%, in The Netherlands from 27.9 to 23%, in Norway from 27.3 to 24.4% and in Sweden from 25.6 to 20.8%.

will be less variety at the individual farm. This gap will be filled up through increasing international trade and product development by the food industry which provide a growing assortment.

Retailers and processors. Farmers mostly learn about wants and needs of consumers not directly, but through the requirements of middlemen or processing industries; more often it is a combined influence of consumers, retailers and processors which sets the requirements for agricultural products. Modern retailing, especially large chains, have a great impact on farming.

In Western Europe the self-service system is taking over very rapidly; during the period 1957 to 1964 the number of self-service shops increased from 10,994 to 92,069 (10). More important in this respect even is the rapid growth of supermarkets, which sell agricultural products, like fresh meat, fruits and vegetables in self-service. Retail outlets of these products are shifting substantially from small scale retailers, like butchers and greengrocers to concentrated retail chains; for The Netherlands some experts estimate that about 25% of fresh meat is sold through supermarkets and the percentage of housewives buying fruits and vegetables at supermarkets and self-service shops on Saturday increased from 4% in 1962 to 11% in 1966 — observations for February (11).

Self-service demands standardised and uniform products and will put high requirements for packaging. Concentration in retailing and processing industry brings about a need for large lots which agriculture in its traditional production and marketing system is not able to offer. The need for large uniform supply also has brought processing industries to set up contract programs with farmers, under which quantity, quality and time of delivery are specified in detail. In many branches of agriculture especially of broiler-production it has brought tremendous changes to farming.

Changes of supply

While on the one hand buyers are dominating the developments in agricultural markets, changes on the farm itself warrant a greater marketing effort. In a recent study of the O.E.C.D. it is stated, that demand for food in O.E.C.D. countries and Oceania per annum during the period 1960–1980 “is likely to rise at only about 1.4% (including the effects of both population and income growth), while food production, if the growth of the past ten years is expressed as a compound rate, is growing at about 2.3% per annum” (12). The continuous search for efficiency has increased production in agriculture substantially. Another point which has to be mentioned in this respect, is that agricultural policies, like some guaranteed price schemes, prohibit to balance demand and supply. Farmers will adjust production to guaranteed prices and one cannot blame them if they are disturbing the market in that way. A good marketing policy can in that case diminish but not solve such problems.

While increasing productivity and policy measures have a tendency to increase supply of traditional products, dynamics of supply in agriculture may be observed in product development as well. Changes of product assortment in agriculture are slower than in many industries, such as in chemicals and electronics. But the increasing efforts in breeding and processing ask for modern marketing activities in order to find outlets for new products.

Increasing geographical size of markets

A last important aspect of changing agricultural markets, is the increasing inter-

nationalisation. Agricultural exports have played an important role in some countries already for a long time. Export programs today have been made easier through harmonisation or abolishment of tariffs and other trade regulations in common markets and free trade areas, like E.E.C. and E.F.T.A. Also the increasing size of companies in agricultural processing and wholesaling promotes the development of international markets. The need for variety in the shopping basket favours international trade as well. This holds especially with respect to products, like citrus fruits, and special cheeses, whose production is limited to certain areas due to climatic conditions or specific skill. While political and transportation barriers to international trade of agricultural products are becoming smaller, still many problems show up because of differences in consumption habits and customs in trading. For instance, great differences between the countries of the E.E.C. may be observed in per capita consumption of fruits, vegetables, beef, pork, liquid milk and others.

This does not even show completely the diversity in food and consumption habits. For instance, while German and Dutch consumers enjoy a rather light broiler, French consumers, having a longer tradition in consumption of poultry-meat, seem to prefer a heavier chicken. Even a seemingly simple product, like a tomato is being consumed in many different ways.

Using the marketing mix in changing agricultural markets

Changes in agricultural markets show that production and selling of agricultural products cannot be without a well planned marketing program. In fact there are many instances of farmers or agribusiness trying to answer the challenge of the market. It seems interesting therefore, to assess how the instruments of the marketing mix – product, price, promotion and distribution – can be used in order to solve marketing problems of agriculture. Only after having understood this, it is possible to evaluate how marketing is modernising agriculture today.

Product

A marketing plan will succeed or fail with the quality of the product. However, a farmer, having to adjust products to new market situations has only a limited control on the product in its final form. He depends on breeds, stocks and other production means available to him. Also he has to wait and see how processors and middlemen change his products. Now it cannot be denied that development of new breeds takes a long time. Also it seems that breeding was often more directed towards increase of productivity or resistance to diseases. Explosive developments of new products that is to say, new from the consumers' point of view, as may be noticed in electronic and chemical industry are alien to agriculture. Breeding is becoming more quality oriented today. The great importance of product quality to the processing industry has given great incentives to breeding. So it is communicated that in France a new variety of tomatoes for processing practically took over the market within five years by means of an effective system of price differentiation (13).

How quality of the product can be improved by the farmer himself can be illustrated by many examples. The reputation of Danish bacon bears to a large extent on the feeding methods used. By shifting from flocks of say 50 up till 200 layers to units of 2000 to 10,000, it has become possible to sell a more uniform product and especially a fresher egg to consumers.

With respect to product policy the post-farm stage, in which agricultural products are processed, sorted and packed, has become very important. Food industry and trade contribute very much to the uniformity and quality the consumer is looking for. Also they develop many new products, as for instance by mixing, canning, freezing and packing. In this way they contribute to the consumers' need for variety.

Product development in agriculture may be pursued at all stages of breeder, farmer and processor or middleman. Therefore a good product policy cannot be realised without a good cooperation of all these parties. Also it must be stressed that farmers will not concentrate on quality if it does not pay. For instance West-German farmers in pig raising do not shift quick enough from lard to meat production since prices to farmer are based on lifeweight which makes it difficult to judge differences in lard and meat content (14).

Price

Farmers are, as is often put, price takers and cannot set prices. In fact farmers' reactions to market prices can have unfavourable results for their own income later on, as for instance the cyclical movements in production well known as the 'hog cycle'. Farmers as a group however can do something about market prices. So for instance in the U.S.A. many marketing orders are established which often provide farmers a tool for keeping prices steady or preventing disastrous declines. A well known example in this respect is the marketing order for Cling Peaches in California. This order established in 1933 after a disastrous price fall in 1932, tries to stabilise prices by limiting supply. This order seems to be very effective, partly since these peach growers have a strong grip on the market.

There exist only a few groups of farmers who enjoy a monopoly because of climatic conditions, advanced technical skill and absence of substitutes. Therefore joint action of farmers in price policy is mostly less ambitious than the foregoing example; an example of that kind is the minimum price scheme of Dutch auctions. In this scheme a minimum price is fixed for a specific product, say tomatoes or lettuce. Products which cannot be sold even at the minimum price will be destroyed or diverted to non competitive outlets, as for instance animal feed. This system works quite well as a security valve against a complete break down of the market, but only, because fairly all vegetables for fresh consumption are sold through auctions. For many products a stabilisation of prices can be realised only through international cooperation of all producers.

Both examples show the limited room for price strategy because of structural elements of the industry: a great many small producers and a rather homogeneous product. However, indicated changes of agricultural markets will provide more room for a pricing policy to farmers. More concentration in retailing and processing will lead to concentration of agricultural supply in cooperatives or other organizations which are going to bargain with representatives of processing industries or retailers. Bargaining is expected to play a more important role because of increasing importance of contract farming. Also increasing product differentiation will offer more opportunity to pricing as a marketing instrument.

Promotion

In economic textbooks consumers' demand for a specific commodity is often analysed by confronting the consumer, given his preferences and his income, with changes in price. This presentation is an abstraction in so far it does not consider changes in

product and preferences. Such approach is therefore of limited practical value since changes of preferences by sales promotion have become perhaps one of the most important means to stimulate consumers' demand; this holds for food as well. In marketing of agricultural products advertising is going to play a more important role and has become common for many products like milk, cheese, eggs, poultry, meat, vegetables and fruits. Because of the often non-differentiated character of these products advertising is of a collective nature and to the advantage of the industry as a whole. Such advertising campaigns are less specific as compared with advertising for a particular brand. Also general campaigns are not easily integrated with other instruments of the marketing mix since the boards or organisations responsible for the campaigns have sometimes a limited grip on policy decisions of farmers. So it is instructive to learn that some years ago the Italian Institute of Commerce had to restrict the advertising theme of its campaigns for fruits and vegetables in export markets to stories about blue skies (15). However, a much more powerful institute with respect to marketing policy like the Milk Marketing Board of the United Kingdom seems able to stimulate consumption of liquid milk through advertising campaigns. Besides these general advertising campaigns for products like butter and beef, advertising for the product of a specific group of farmers or for a specific brand will increase. This development is the consequence of concentration in selling and processing and an increasing importance of product differentiation. It will definitely enlarge the opportunities for the use of advertising as an instrument in agricultural marketing policy.

Distribution

While advertising is a rather new issue in marketing of agricultural products, marketing channels have always been of great concern to farmers. Selling cooperatives and processing cooperatives were established already a long time ago by farmers amongst others in order to develop new outlets for their products or to get rid of regional or national monopolies of middlemen. In many countries cooperatives exist, which have become really big business. Also farmers have been able sometimes to improve the marketing system, without integrating wholesaling as for instance the cooperative auctions for fruits and vegetables in The Netherlands. There are many other ways in which agriculture has improved marketing channels with partial governmental support as for instance by Marketing Orders and Marketing Agreements in the U.S.A., by Marketing Boards in the United Kingdom and by Producers Groups in France.

Because of many changes in processing and retailing, marketing channels of agricultural products change greatly, and for most products become more direct. The canning and quick-freezing industries often have specific requirements with respect to quality, quantity and time of delivery, which can be realised only by contract farming. A similar development can be observed in the broiler industry, and in the meat packing industry, at least with regard to pigs. Large uniform batches of good quality are not only a need of the processing industry but of many retail chains as well. Wholesalers often are not able to meet these requirements and consequently retail chains will try to buy from farmers directly.

Marketing, modernising agriculture

Application of modern marketing methods requires appropriate organisation of agri-

culture; in this way marketing is modernising agriculture. Obviously there are other factors, like for instance the need for lowering costs of production whose influence is hard to distinguish from the modernising effect of marketing. Nevertheless, it seems that marketing impact on farming can be presented under the three following headings:

- 1) Promoting a new organisation of marketing channels in order to coordinate decision making horizontally between farmers, as well as vertically, between farmers, processors and retailers.
- 2) Stimulating new production techniques at the farm in order to meet product requirements of buyers.
- 3) Forcing agriculture to do more research with respect to product development — stocks, breeds — but especially market research, in order to fit the marketing program to the real conditions of the market.

New organisation of marketing channels

It has already been stated that marketing cannot work without a well coordinated policy with respect to product, price, promotion and distribution. The biggest obstacle to this condition is that most agricultural products are produced by a great many farmers who more or less independently decide what to produce, how to produce and at what time to sell. Also climate and diseases cause random variations in quality and quantity of production. It is clear that because of such costly uncertainties industry has looked for ways to integrate the decision making of farmers and processors. This integration has been realised in different ways.

a) *Farmers supply processing industries and sometimes retailers on a contract basis.* Especially in production of broilers and raising of pigs, but also in production of vegetables for canning and freezing, contracts have become familiar. Contracts improve production methods by prescribing breeds, feed and fertilizers to be used. Also they are modernising agriculture by requesting an efficient operation and by providing credit for necessary investments. Rigid quality conditions and quality premiums make farmers more quality conscious too. It happens quite often that processing industries or feed mills, which play an important role in contract farming of broilers and pigs, make an extension service available to farmers as well.

Obviously this stimulus to modernisation of farming by processing industry and feed mills is by no means philanthropic, but a 'must' in view of the wants of retailers and consumers. On their part farmers are aware of the many advantages of these programs. They realise however that the bargaining power of individual farmers vis-à-vis a big company is rather weak. Individual farmers sometimes do not understand all the consequences of the contract which afterwards may give trouble to both parties in the contract.

While many contracting processors understand that even from the point of view of their self-interest it is desirable, that farmers share in profits of their joint business, not all of them take the same attitude. Therefore some farmers join in bargaining cooperatives to negotiate the contract. These cooperatives or other bargaining organisations make farmers stronger in their negotiations, but they are useful to the industry as well. For instance it will be easier to negotiate with one representative of a group of farmers instead of having to contract a great many individually. Also bargaining cooperatives will stimulate their members to quality production and therefore will make it easier to processing industry and retail-chains to get the products they are looking for.

b) *Another way to realise coordinated decision making is to integrate processing*

and/or wholesaling by farmers. In discussing marketing channels, selling cooperatives have been mentioned already. Some processing cooperatives, for instance dairy plants, were also established many years ago. In this context it will be important to notice how requisites of marketing have an impact on the organisation of these cooperatives. *Cooperatives often have to take care of all products supplied by their members.* Members have to sell their products through their cooperative but are free to produce the amount and quality they like. At best cooperatives are influencing production of their members by extension, grading and quality premiums. Only recently price differentiation has become accepted as a means of improving quality. It is a necessary tool for keeping quality conscious farmers as active members within the cooperative. Although the quality premium is a good start for many cooperatives a greater degree of integrated decision making is needed with respect to farming, processing and trading. So for example cooperatives in the broiler or canning industry should be able to develop contract programs in order to compete with private business. In many other sectors, like production of eggs, fruits and vegetables for fresh consumption, product policy is not so rigid, that contracts with farmers are a 'must' to cooperatives but they may be very useful for long term contracts with retailers.

Cooperatives are facing large buyers interested in uniform products of good quality. Many local and regional cooperatives are too small for these clients. Concentration of cooperatives and stronger control by national cooperatives of local or regional members are necessary.

So it is clear that marketing requisites have a great impact on cooperatives. These adjustments or even fundamental changes take much time and effort not the least because of the social and psychological problems involved. They are gradually transforming cooperatives from a producer oriented institution taking care of farmers' products, to a consumer oriented institution telling farmers what and how to produce.

While such developments are under way in many cooperative-minded countries, it may be observed that, especially in countries having a less strong cooperative tradition, like France, producers groups are stimulated. It is hard to describe a typical producers group since it does not exist yet. But in general one will notice that these groups, as set up in many countries, try to improve quality through demanding rigid product standards of their members. Products of the members are sold by the producers group, which may integrate wholesaling functions and processing activities as well.

c) *A hot issue to farmers is the complete integration of agricultural production by processing industries and retail chains.* It happens once in a while that food industries and retail chains, not being satisfied with the products available in the market start agricultural production themselves. Will this remain the exception or will it become usual for products like eggs and pigs? From the marketing point of view such kind of backward integration does not seem necessary. After all many food industries will hesitate to put money into a business in which they are not experienced. It might be that in some branches industries produce part of their own supplies in this way stimulating farmers to better quality. Also it should be admitted that low costs of production have played a role in this development, but this aspect, whatever its importance may be, is not relevant in this context.

d) Besides these ways of integrating decision making many more are proposed. For example it is argued that *farmers should not only integrate wholesaling and processing, but retailing as well.* In that case farmers would be able to realise a direct contact with consumers and it would offer the opportunity to correct margins, which are always suspected by farmers. It seems that at best this proposition is wishful

thinking. Food shops have a broad assortment and therefore farmers would get involved in a great many products alien to them in order to sell their own limited assortment. In fact it would be too costly and risky a business.

While complete integration of retail shops by farmers does not seem to have any chance, it seems that joint ventures of farmers and retailers could be useful. For instance 'rack jobbing' by producers groups or cooperatives might be, in a limited number of cases, an interesting proposition. Especially for perishable and high quality products it might have some meaning.

e) Modern marketing development also requires an adjustment of existing market structures. In many countries reorganisations of wholesale markets are planned. In France a national network of wholesale markets for fruits and vegetables is under way; recently a huge wholesale market in Milan was opened. Cattle markets in many European countries are also under reconstruction. While many of these projects are useful, one should keep in mind that an increasing part of agricultural products will bypass central markets on their way to processor or retailer.

Specialisation of farming

Marketing does not only create new relationships both among farmers and between farmers and buyers. It has contributed as well to the development of a larger, more specialised farm unit. It must be stressed that many other factors, especially a need for lowering costs of production, lead to the same result. Uniformity and good quality for which buyers are asking, require a specialised farmer who is acquainted with modern production techniques. Specialised agriculture like dairy farms, fruit growers, pig raisers and gardeners are taking over from mixed farms. In this way not only is the efficiency of production increased, but such specialisation leads to mass production of uniform products which is required by today's mass merchandising. In this system of specialised farming the farmer will become more dependent on the market and the greater risks involved will make him more inclined to cooperate in marketing his products with his fellow farmers and with his clients.

Increase of product and market research

As a last group of changes brought about by marketing it was pointed out that more research should be done. Product development is an important issue in the dynamic markets of today. Development of new breeds is needed, especially in view of the increasing importance of processing. Governmental support and joint efforts of farmers should increase research on product development.

Product development as well as other marketing efforts are without value, unless directed by a good knowledge of the market. This is something which agriculture has recognized and market research is used extensively nowadays. Market research for agriculture on a scientific basis started in the beginning of the century in the U.S.A. and Germany. Much work done in this field was macro-economic research; price analysis, analysis of reaction to prices of farmers' supply, analysis of food margins, are types of research done before the second world war. One should remember that because of slight product differentiation, market analysis in those days was often only possible for national markets.

Market research for agricultural products has rapidly increased during the last ten years. Macro-economic forecasts of consumption and supply are available now for many products in quite a few countries. But besides these macro-economic analyses consumer surveys with regard to consumption and shopping habits are carried out.

Consumer panels are used to check sales against those of competitors and advertising campaigns are based upon solid market research. All this has become possible and necessary because of concentration of supply and because of product differentiation. However, not all marketing of agricultural products is so nicely based upon market research. To begin with there are still many farmers selling individually small quantities. Even if one limits attention to cooperatives and producers groups, which sell on a large scale, it may be observed that market research sometimes is used in a poor manner. Farmers' cooperatives and producers' groups need marketing-minded leaders, familiar with their market but also with the possibilities of market-research. A proper use of market-research requires a good commercial staff and preferably a market-research team within the cooperative. Obviously the last point depends on the size of the company; fortunately concentration of agricultural marketing organisations will improve conditions in this respect too.

Having described how modern marketing methods have an impact on farming, it must be stressed that there are a great many other factors like increase of productivity and especially farm policy of government or supra-governmental authorities which model today's agriculture. However it seems sufficiently demonstrated how marketing is improving agriculture a great deal in order to serve its clients in the best possible way.

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