

SYMPOSIUM: OILSEED PROCESSORS CHALLENGED BY WORLD PROTEIN NEED

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Marketing Considerations for Improved Protein Food Products¹

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ABSTRACT

The conventional approach to marketing of improved products in the retail commercial markets of highly industrialized Western countries is of little utility in meeting presently unfulfilled protein needs of the underdeveloped countries. To be effective and accepted by the target consumers, improved protein foods must be classless, and must be introduced simultaneously at all levels of the economy. This can rarely be accomplished by the conventional business approach. New enterprise structures must be developed in which private companies can participate in joint ventures with governments, cooperatives and voluntary agencies. Successful market development in the less developed countries demands a systems approach in which interrelationships among food availabilities, nutritional needs, acceptability factors and purchasing power are evaluated in the context of

the total food system of the country.

INTRODUCTION

In treating the economics of unexploited and underexploited protein resources, one must realize that even the most favorable economic evaluation will be nullified if the protein resource does not reach the target consumer or is not accepted and used by him. This is where marketing considerations enter the picture.

Since the task of providing the needed additional protein for the world's undernourished people presents a new and unique problem in marketing, a proper starting point for this presentation is the ultimate definition of the marketing process: "the delivery of a social change."

Marketing seems to have almost as many definitions as there are textbooks on the subject, each reflecting its own operational sphere. All have something to do with "getting the product to the consumer," but only rarely is there recognition of a need to characterize the consumer and his environmental and cultural setting. Such a characterization is crucial in developing countries, since it becomes a focal point in the analysis of a food system and the planning of

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INDEX

473-476	MARKETING CONSIDERATIONS FOR IMPROVED PROTEIN FOOD PRODUCTS, by A.N. Meiss and S.M. Cantor	484-488	OILSEED PROTEIN CONCENTRATES AND ISOLATES, by Edwin W. Meyer
477-480	THE FUNCTIONAL REQUIREMENTS OF PROTEINS FOR FOODS, by Karl F. Mattil	489-491	TEXTURED AND SHAPED OILSEED PROTEIN FOOD PRODUCTS, by M.D. Wilding
481-483	SOY FLOUR AND GRITS FOR USE IN FOOD PRODUCTS, by Richard L. Kellor	492-494	BREEDING FOR IMPROVED OILSEEDS, by R.W. Howell

marketing strategies.

NEW DIRECTIONS NEEDED

It must be strongly emphasized that new directions will have to be taken by business organizations if they are to make any real contribution to meeting presently unfulfilled world protein needs. In particular, the marketing effort must be tailored to the total food system of a country or region and must ultimately embrace all consumers, those at lowest subsistence levels as well as those living in the money economy. Further, the development and acceptance of new enterprise structures will often be the key issue: ways must be found to move identical products in commercial retail channels, through feeding programs of governments and voluntary agencies, and through cooperative organizations. To be successful for the country as a whole, market development will have to be paced to move ahead with reasonable uniformity at all levels of the economy.

With some notable exceptions, the marketing activities currently pursued in developing countries are simply extensions of domestic marketing activities of commercial companies of industrialized nations. Counterpart products are aimed at counterpart consumer groups, rarely reaching below the emerging middle classes. The people most needing improved protein foods are thus largely excluded if not ignored. Products are usually conceived in the industrialized country and transferred abroad with the necessary product and marketing technologies adapted to reaching consumers at comparable social and economic levels in the developing country. This is the setting for the "trickle down" process of extending markets, in which it is hoped that a product which gains acceptance in the more affluent segments of the population will eventually find its way down to the lowest levels of the money economy.

It is very unrealistic to think that this will often happen within a reasonable number of years, or that rising incomes and descending food prices would make the improved food available to the malnourished people before it is too late.

Thus, food producers must face a dilemma: The present commercial opportunity appears to lie with the relatively affluent, while the world protein need is largely a need of those at the bottom of the money economy or out of it entirely. Some innovative and unconventional ways of solving this problem are required. This could well mean that the company will participate in some new form of enterprise, such as a joint venture with government, or with a cooperative or a voluntary agency.

In efforts to meet world protein needs, the role of marketing must be expanded beyond the usual scope of activity for commercialization of a new food product in the United States. Nutritionists and others having knowledge and understanding of the developing country culture have already had some success with a few products using conventional North American style market development techniques.

CASE HISTORIES

Incaparina is a case in point. After 20 years in development, there is an operating business in Guatemala which is reported to have achieved a modest success (1). Efforts in other Central American countries have not yet shown much progress. Quaker Oats has been working aggressively since 1963 to develop the market for Incaparina in Colombia. The company claims a marginal success by this time, but it is believed that most sales are to the relatively affluent (2). It is a status food. In Guatemala and Colombia, development of marketing techniques and methods proceeded concurrently with the commercialization effort (1). From published accounts of the development it appears that marketing efforts are largely governed

by feedback from the sales performance of the product. Basic market research is going on at the same time as commercialization. The success claimed for Incaparina in Central America and Colombia has been attributed in part to a food habit of using thin cereal gruels as beverages and in other ways. This habit could serve as a vehicle for nutritional improvement with an accepted product made from domestically produced materials (3). Unfortunately not enough is known about food habits among these people.

Apart from whatever degree of commercial success Incaparina is enjoying, the question remains of how well it is fulfilling the nutritional objective of its originators. From studies reported, it is concluded that Incaparina is conveying its intended nutritional benefit to about 25% of its primary target market, infants and children up to five years of age (1,2). Such market penetration of a single product would be considered excellent in the United States consumer market. But it leaves much to be desired if the product is relied upon as the major weapon against infant and child malnutrition in a country or region, and takes 20 years to be developed. From early distribution through medical clinics, Incaparina gained a pharmaceutical or special "health food" status and is not widely regarded as a regular dietary ingredient.

ProNutro in South Africa has a longer but somewhat similar history. Production started in 1937 and has been developed entirely under commercial enterprise (4,5). In the year ending in June 1962, 72 tons of the product were sold; two years later over 2000 tons were sold in a year and sales continued to rise rapidly during the ensuing months. As evidence of the effectiveness of ProNutro, it has been reported that during these two years (from '62 to '64) the infant mortality rate of black Africans in the town of Durban dropped from nearly 300 to 160 per thousand births. If accurate, the figures are impressive, and certainly a source of satisfaction to the producers of ProNutro. It must be recognized, however, that this was the culmination of more than 25 years of effort. One setback was that an earlier name trade mark for the product created the idea that it was a "poor black people's food," and thus ran headlong into increasingly militant racial antagonisms. These are just a few pitfalls a food marketer faces in some developing countries.

The outstanding commercial success among improved protein foods has been with VitaSoy in Hong Kong. Introduced in 1938, the product was clearly a success by the middle 50's. The VitaSoy experience demonstrates one of the key points in marketing foods to improve the nutrition of a population. It utilized an existing food habit to introduce a change in food practice that produced a sought for improvement in nutrition.

The words "habits" and "practices" should be clearly understood. Food habits, which demand that the identity of one's foods be retained, are formed very early in life and persist strongly. Food practices, which mean where, when and how food is consumed, are much easier to change and are indeed under constant change.

VitaSoy does not share a soft drink identity with sweet carbonated beverages. It is soy milk, popular among the Chinese for many centuries. It is fortified with vitamins and minerals, bottled and distributed the way carbonated beverages are, and holds almost 25% of the Hong Kong market. But VitaSoy remains a food drink, and alleviates, to a considerable degree, the shortage of milk supply in Hong Kong. Interestingly, its market was extended by installation of heater compartments in dispenser cabinets. Many Chinese drink warm soy milk in the cold weather. Recently, it was also found that there was a marked increase in sales during snack hours. Thus, the true identity of VitaSoy as a liquid snack has emerged.

PRODUCT DEVELOPMENT INSTITUTIONALIZED

Records of the foregoing examples and many others show the failures or slow progress which may occur when introducing new products, and the danger that product development may become ineffectively institutionalized.

The 10, 15 or 25 years spent for market development of improved protein foods with some commercial success are just too long. World food problems will continue to elude us at a runaway pace unless faster and more efficient ways can be found. A total marketing approach is needed, one that describes and analyzes the food system of an entire country, analyzes cultural patterns and food habits, identifies consumer groups that should be the beneficiaries of nutritional improvement, identifies the target products, and furnishes the basis for a national nutrition policy and for decision-making in nutrition operations that could provide the background for marketing oriented product development for both commercial and institutional programs.

A small start has been made in several countries by our company, on assignments from the United States and international agencies, and also by private companies (6).

FOOD SYSTEM APPROACH

Taking a country food system in its broadest sense, from basic agricultural production to retail consumption, many relationships must be understood before most nutrition operations can be carried out intelligently.

The first phase of a food system analysis is to construct a general economic model. In most countries satisfactory results can be obtained with existing statistical data on food availabilities, demography including family size and income, and household expenditures for food.

From an analysis of these data and their interrelationships, it is possible to develop an estimate of the "protein gap" of a country or a region, to determine the elasticity of demand for the different kinds of food at each income level, the per capita distribution of protein and calories from each class of food, and, from these relationships, the elements of a picture of the food habits of an average person in each income group.

The next step in the food analysis system is to bring the human element into the picture. This is accomplished with a review and evaluation of all available information from food and nutrition surveys, clinical nutrition studies, and reports of environmental, anthropological, sociological and economic researches relating to food. At this point it is possible to make a reasonable determination of the income level at which chronic undernutrition occurs and the level at which serious malnutrition is frequently manifested, thus obtaining a clearer understanding of food habits, plus a tentative identification of commodities or kinds of food that could become vehicles of improved nutrition. At this stage of the analysis the problems to be faced by the technologists begin to emerge. These problems relate to specifications for the additional sources of protein needed and to required properties of foods to be offered to target groups, or to the country as a whole for the benefit of the target groups. It may be necessary in the long run to improve everyone's staple foods in order to reach the malnourished. The choice of strategy may frequently involve a political decision, but the options must be made available to the decision makers.

INTERCONVERTIBILITY OF PROTEIN SOURCE

The task of determining on an economic basis the best materials to use to provide the needed additional protein is one of ingenuity. A stepwise analysis has been tried in which at each step the various protein sources are ranked

by a set of relative ratios which have been labeled "Interconvertibility Factors" (7). The term "interconvertibility" relates to the common property of protein content.

At this stage of development only four factors are used. They are computed sequentially by a stepwise multiplication process in which each succeeding factor becomes a modification of the preceding one. The order of rank at the fourth factor indicates which foods or protein sources should be used. These factors are: (a) cost per unit of reference protein supplied; (b) a factor to account for difference in percentage of calories from protein (basis for including this factor is that the primary target group in each case was comprised of infants and young children, whose diets should have a minimum of 10% or 12% protein calories); (c) a factor which takes into consideration the propensity to buy the greatest amount of hunger satisfaction for the money spent (chronically hungry people buy calories, not nutrition); (d) a factor which estimates the relative tendency to disrupt existing supply-demand equilibria if a particular food material is used for the desired increment of reference protein to the national food supply.

This analysis has been applied to two countries thus far, but could be done only in a modified way to a third country because of its rigidly controlled economy; the assumptions on which the analytical method is based require free competition among all commodities in the marketplace. It is interesting to note that in all three countries the food system analysis led to recommendations of nutrition operations strategies based upon fortification of wheat or cereal based foods with oilseed protein concentrates, fish protein concentrate, or lysine.

The food system study becomes virtually a comprehensive marketing systems analysis after one examines constraints that would be imposed upon a food production and marketing venture. Such constraints might originate in the political system, economic policy, or the general business climate. It is believed, however, that in most cases, the entire analysis can be completed from existing data and information, or by collection of specific "indicator" data.

The analytical study will also disclose information gaps for planning a program for marketing improved protein products, and will furnish guidelines for consumer surveys, product acceptance tests, and other evaluations that may be required to fill in the information gaps. Such a set of guidelines for introducing new protein products is currently under preparation by the Working Group on Marketing of the Protein Advisory Group of FAO/WHO/UNICEF. As a result infant foods being developed in Algeria, Morocco and Ethiopia with UN collaboration already display a more sophisticated marketing effort than most of the product introductions that have been tried by commercial firms (8,9).

ROLE OF CONSUMER SURVEYS

Consumer food surveys are being made which include data on food availabilities, income and social class, food purchases and food consumption, including who eats what at what time in a given household group, and how food is distributed within the family. These data make it possible to describe the surveyed population in terms of the many possible combinations of nutrition status, food habits, social constraints and purchasing power.

Two recent surveys in India, carried out with the collaboration of Cantor Associates, have developed this kind of information. One, conducted in the states of Maharashtra and Gujarat by the Operations Research Group of Baroda, investigated the identification of product types for improved protein foods that might be manufactured by members of the Protein Foods Association of India. The other is a survey of food habits in Calcutta, just being completed for the Indian Government by Hindustan-

Thompson, the Indian branch of an international market research group. A major purpose of the Calcutta survey was to provide the basis for designing and marketing improved foods for infants and preschool children.

A most interesting development in international nutrition operations is a comprehensive statewide food system analysis now getting under way in Tamil Nadu (the present name of Madras State, India). The working team for this project is highly competent in the fields of child feeding, nutrition, food technology, market development, economics and econometrics, and the social sciences. The United States and Indian governments have great hopes that the project will serve as a model for other Indian states and other countries as well. This program resulted from several years of effort to find a better way to identify products and target market groups for an operational program to alleviate malnutrition. It was intended from the beginning to involve both public and private sectors of the economy.

MARKETING AND NATIONAL NUTRITION POLICY

The food system and market analyses described represent an elaborate undertaking, and could hardly be justified for a single product going to a limited market and supported by minimal development investment. But a total marketing analysis of a developing country's food system can facilitate market development of many products. More important, it can provide the necessary information for a national nutrition policy, it may disclose the possibility of new or novel structures for pursuing nutrition objectives, and may suggest ways in which a company can operate profitably in a combination of subsidized and commercial markets. In connection with the latter, studies in Chile have suggested that a domestic producer of high quality fish protein concentrate could have substantial and regular sales to government which could help develop a significant and growing demand by manufacturers of foods for the retail market.

Nutrition problems in developing countries would not be much helped by the introduction of new packaged products for the retail market. These inevitably become status foods

and are not likely to help more than controlled calorie products are helping to overcome problems of malnutrition in the United States. If real progress is to be made, it must be through simultaneous action up and down the economic scale. Identical products must be marketed aggressively and concurrently in the commercial market and to people aided by government and voluntary agency programs. Some form of joint participation by government and industry seems to be inevitably necessary.

Moving improved protein foods to where they are needed throughout the world requires more than successful food marketing experience in the retail markets of the United States, and broader horizons than those perceived by well-intentioned food scientists, food technologists, nutritionists, or even economists.

The marketer's knowledge of food habits, cultural constraints and ethnic peculiarities, and distribution of purchasing power must be secured before prototype products are designed and taken into the field.

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